ROHM
SEMICONDUCTOR

Creating the future of Automobiles

创造汽车的未来

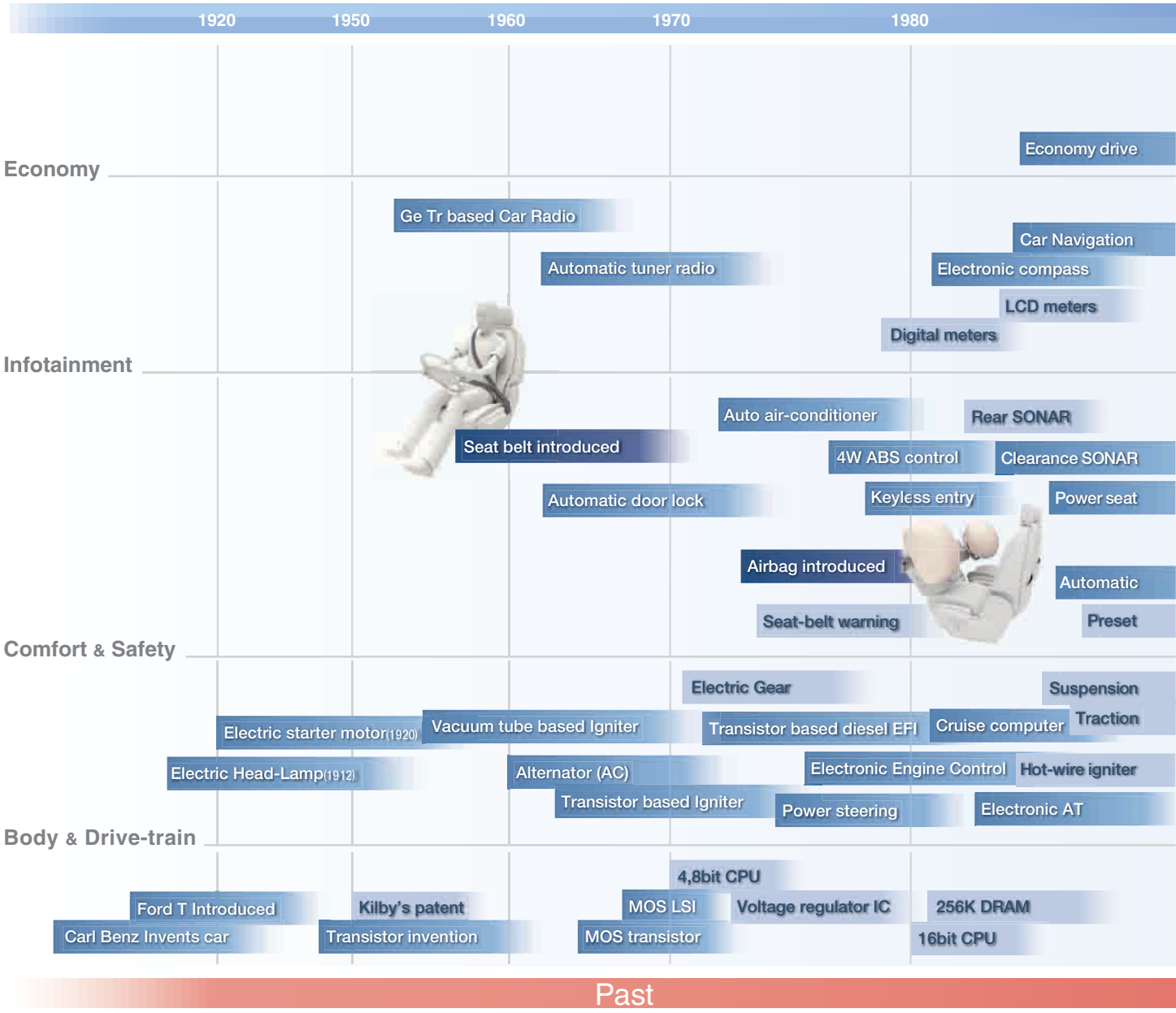
AUTOMOTIVE

PRODUCT CATALOGUE Ver.2.2

Creating the future of Automobiles

创造汽车的未来

Automotive evolution



实行一体化生产体制和全面的BCM体制，从而开发深受客户信赖的产品。

下一代功率元器件

开发SiC・GaN等新元器件，打破耐高温、高效率、小型化极限。

车身

- 低静态电流LDO、DC/DC
- LED灯用驱动器
- 智能钥匙用LF天线驱动器
- 高效率电机驱动器

动力传动系统

- 超低静态电流LDO
- 智能功率开关
- I/F ASIC
- 通信用IC
- 传感器信号处理ASIC

HEV/EV

- 高速隔离器
- 内置绝缘元器件的栅极驱动器
- IGBT温度监测器

下一代通勤方式

将消费电子应用中积累的技术向车载用途展开。帮助汽车实现放心、安全、舒适、小型化。

车载音响/车载导航

- LDO、DC/DC
- 系统电源
- 声音处理器
- 音频解码器

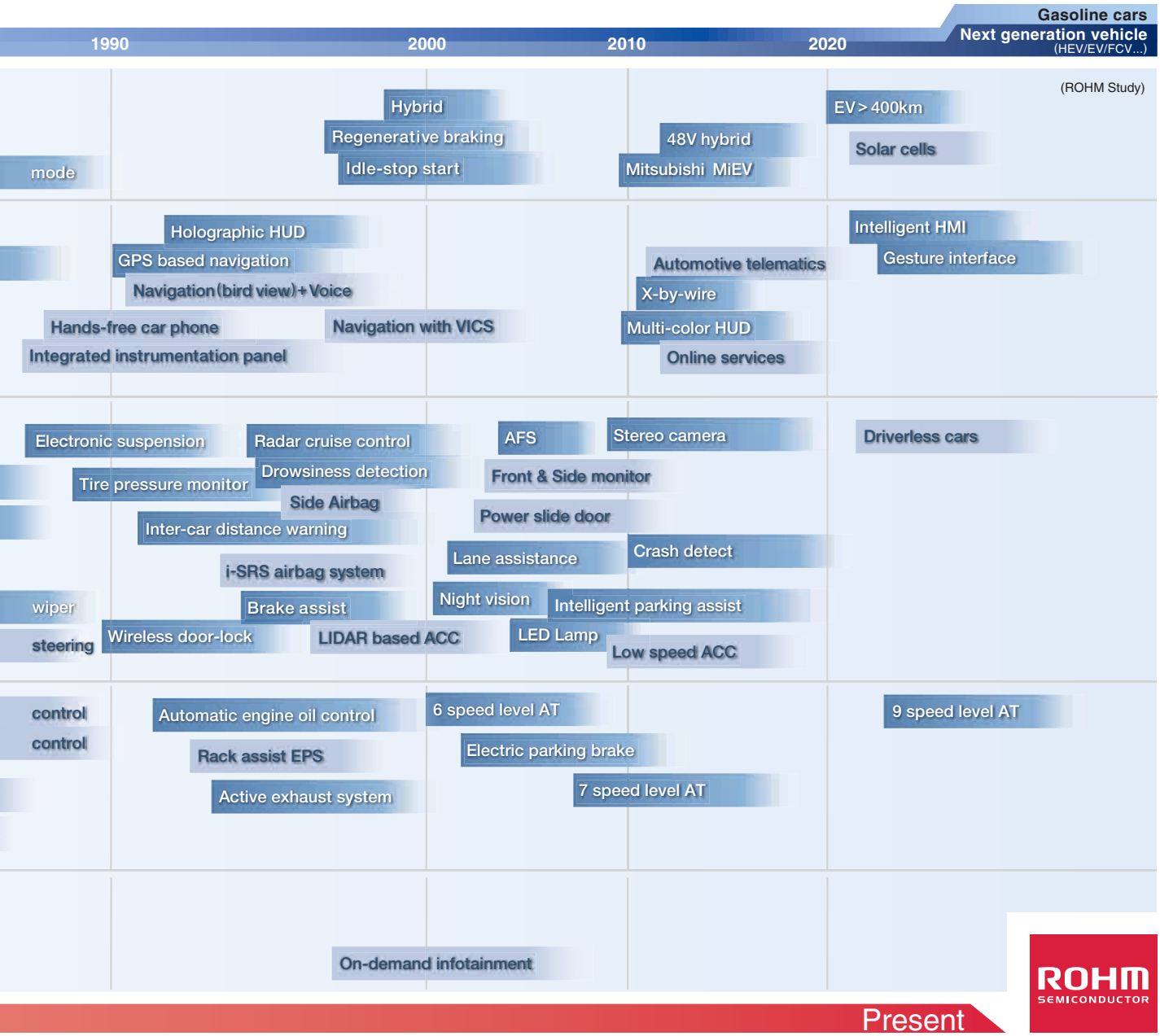
车载多媒体

- 背光LED驱动器
- 段码驱动器

ITS

- LVDS
- Bluetooth®

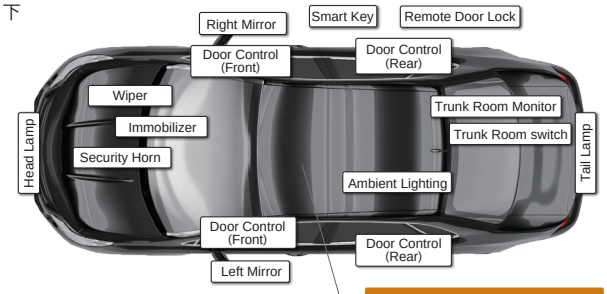
ROHM已开发出多种用于车载音响的LSI、分立元器件，随着车载导航、车载多媒体的普及还扩展了产品领域。
并且伴随ITS、车辆电子化的发展，正在开发车身用、动力传动系统用LSI、分立元器件。
ROHM还将紧跟车辆向更舒适、安全、环保发展的趋势把更多的新产品投向市场。

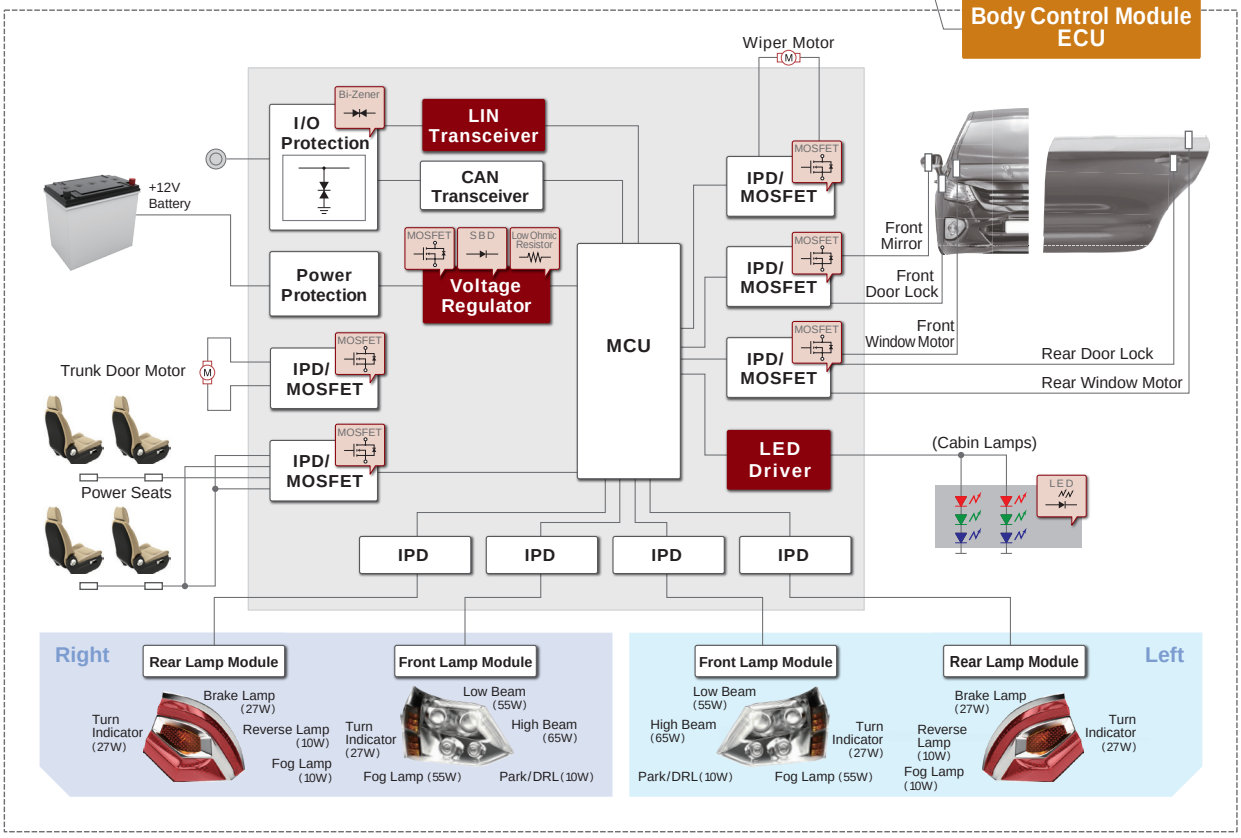


目录

车身控制模块

车身控制模块(BCM)是控制汽车整个车身的ECU，
集中控制HVAC、车内外照明以及车门、车窗、车镜、雨刮器驱动等的车身系统ECU。
在以舒适、安全、环保及车内娱乐为中心的汽车电动化发展大趋势下
BCM的功能越来越丰富，
为了减少线束使用，实现汽车的轻量化，
LIN和CAN等多重通信日益增加。





Memory | Op.Amps Comparators | Voltage Detectors (Reset ICs)

车身控制模块用产品

LIN收发器 — BD41030FJ-C

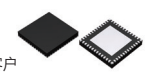
符合车载本地网络标准LIN Ver.2.1。


SOP-J8

· · · P.27

RGB LED驱动器 — BD2808MUV-M

搭载8bit调光技术和R·G·B用6bit电流DAC，可更好地呈现客户喜欢的色彩。


VQFN48MCV070

· · · P.24

MOSFET — 60V 系列 / 100V 系列

LED驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。


SOP8

· · · P.48 to 50

肖特基势垒二极管 — 超低 I_R 系列 / 低 V_F 系列

包括重视V_F和重视I_R的4个系列。可根据电路选择最佳方案。


PMDU

· · · P.55 to 62

双向齐纳二极管 — RSB 系列

最适用于LIN、CAN电路的双向齐纳二极管系列。


UMD2

· · · P.67, P.69

大功率超低阻值分流电阻器 — GMR 系列（开发中）

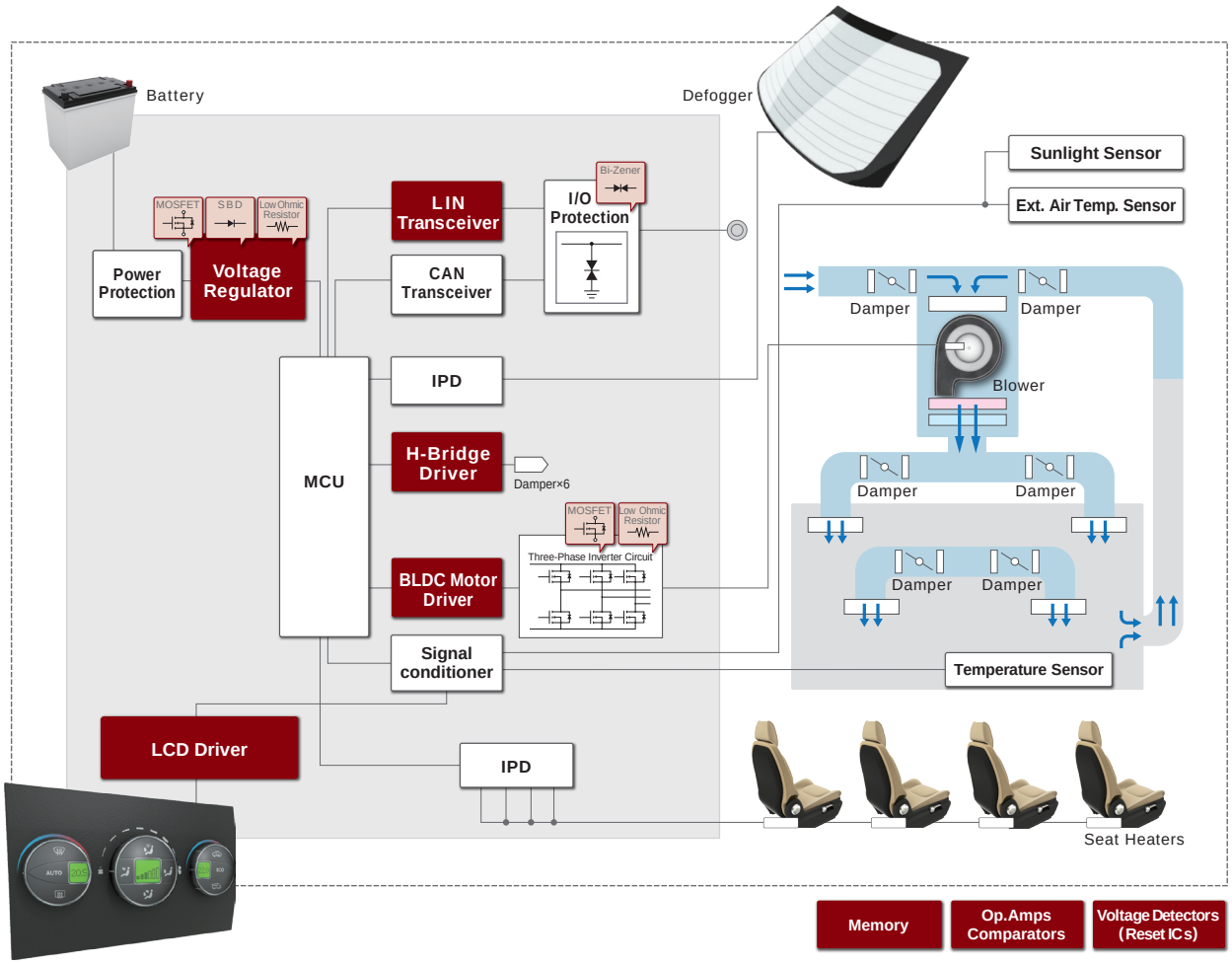
采用新结构，实现高散热性和优异的温度特性。确保6432尺寸/3W额定功率。


GMR100

· · · P.75

汽车空调控制模块

HVAC(Heat Ventilation and Air Conditioning/汽车空调)是使用压缩机通过冷媒循环进行制冷、由冷却水带出引擎排放的热量的制热系统。
HVAC存在两种空调，一种是通过手动调整暖风、冷风比例及风扇风量的手动空调，
一种是针对提前设定的室温自动调整温度和风量的自动空调。
下图是自动空调的框图。
随着动力源逐渐从引擎转变为HEV/EV等的电机，车内的安静度要求也日益提高。
因此，汽车座椅制冷器/加热器风扇等车内电机的噪音变得尤为显著，这就需要电机驱动器静音工作。
鼓风机电机曾经是传统DC电机的主流，为改善热效率，无刷电机已日益普及。



汽车空调控制模块用产品

LCD驱动器 BU97530KVT-M

产品功能丰富，不仅具备LCD控制功能，还内置按钮检测、LED调光等操作面板所需的功能。

・・・P.27 TQFP100V

LCD驱动器 ML94xx 系列

提供客户满意的产品阵容，产品不仅保持一直以来的高可靠性，还提高了电磁抗干扰能力，并减少了PCB板上的部件数量。

・・・P.27 QFP100

BLDC电机驱动器 BD16805FV-M

180°通电使静音效果更佳；进角控制使效率更高。

・・・P.25 SSOP-B40

H桥驱动器 BD16936EFV-M

内置低导通电阻的DMOSFET，实现高效率和低发热。

・・・P.25 HTSSOP-B28

MOSFET 40V 系列 60V 系列

电机驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。

・・・P.48 to 56 DPAK

肖特基势垒二极管 超低 I_R 系列 低 V_F 系列

包括重视V_F和重视I_R的4个系列。可根据电路选择最佳方案。

・・・P.55 to 62 PMDU

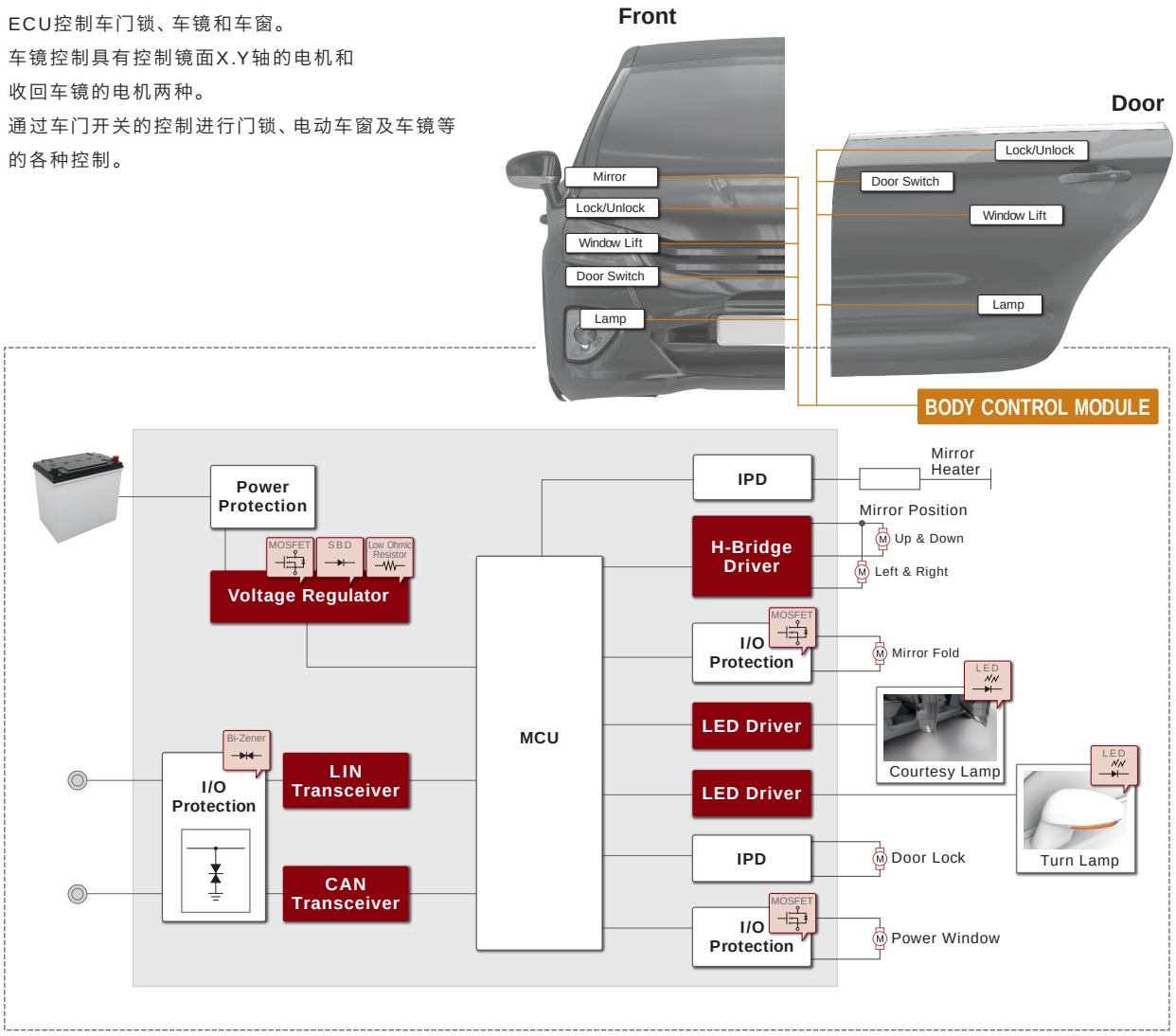
大功率超低阻值分流电阻器 PSR 系列

确保最大5W的额定功率，提供最小0.2mΩ开始的超低电阻。

・・・P.75 PSR500

车门 & 车镜控制模块

ECU控制车门锁、车镜和车窗。
车镜控制具有控制镜面X.Y轴的电机和收回车镜的电机两种。
通过车门开关的控制进行门锁、电动车窗及车镜等的各种控制。



车门 & 车镜控制模块用产品

LIN收发器 BD41020FJ-C

符合车载本地网络标准LIN Ver.2.1.

・・・P.27 SOP-J8

H桥驱动器 BD16936EFV-M

内置低导通电阻的DMOSFET，实现高效率和低发热。

・・・P.25 HTSSOP-B28

MOSFET 40V系列 60V系列

电机驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。

・・・P.48 to 50 DPAK

肖特基势垒二极管 超低 I_R 系列 低 V_F 系列

包括重视V_F和重视I_R的4个系列。可根据电路选择最佳方案。

・・・P.55 to 62 PMDU

低阻值贴片式电阻器 LTR系列 PMR系列

产品阵容强大，1005尺寸～6432尺寸的高额定功率/高可靠性低电阻一应俱全。

・・・P.81 LTR18

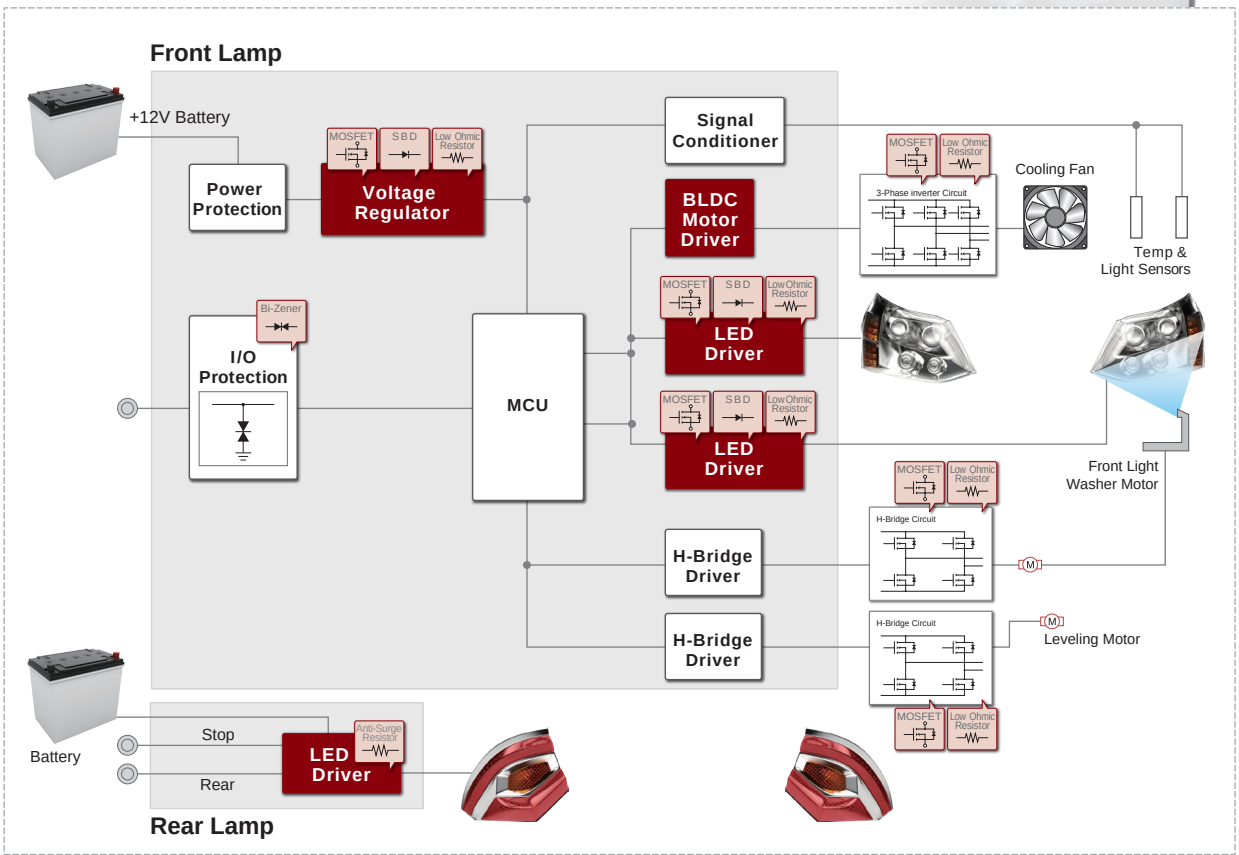
双向齐纳二极管 RSB系列

最适用于LIN、CAN电路的双向齐纳二极管系列。

・・・P.67, P.69 UMD2

车灯模块

汽车用的外灯有前照灯和尾灯，由于LED灯使用寿命长，设计灵活性高，功耗低，因此被广泛使用。
前照灯有近光灯、远光灯、DRL、停车灯、防雾灯、转向灯。
随着越来越多的近光灯、远光灯采用LED灯，需要使用散热风扇来解决发热问题。
检测LED产生的热量情况，使散热风扇工作，以散发LED灯的热量。
另外，为减少对迎面驶来的车辆的影响，该模块还配置有根据车重的前后平衡控制车灯上下的自动调平功能。
罗姆为满足车灯模块的LED化趋势需求，
已开发出众多车灯专用的LED驱动器。



车灯模块用产品

LED驱动器（前照灯用） BD8381AEFV-M

内置升降压开关稳压器，可支持各种LED段数。另外，具备PWM调光功能，可实现无微控制器条件下的控制。・・・P.24


HTSSOP-B28

LED驱动器（尾灯用） BD8374EFJ-M BD8374HFP-M

内置高性能的恒流电路，实现±3%的LED电流精度。另外，具有完善的LED的开路/短路保护。

・・・P47, P54 to 55


HTSOP-J8


HRP7

MOSFET 60V系列 100V系列

电机驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。

・・・P.48 to 50


DPAK

肖特基势垒二极管 超低 I_R 系列 低 V_F 系列

包括重视V_F和重视I_R的4个系列。可根据电路选择最佳方案。


PMDU

・・・P.55 to 62

低阻值贴片式电阻器 LTR系列 PMR系列

产品阵容强大，1005尺寸～6432尺寸的高额定功率/高可靠性低电阻一应俱全。


LTR18

・・・P.81

双向齐纳二极管 RSB系列

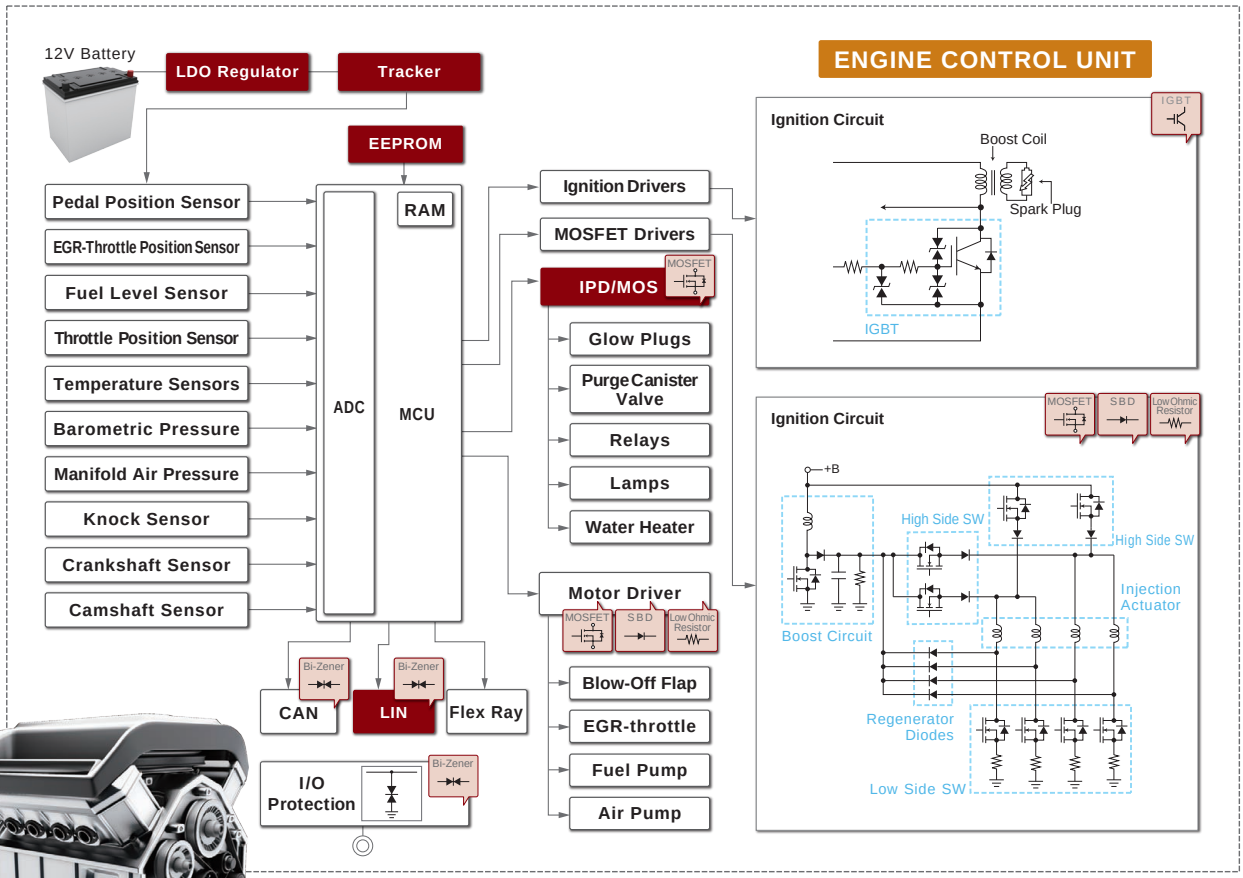
最适用于LIN、CAN电路的双向齐纳二极管系列。


UMD2

・・・P.67, P.69

引擎控制部

为遵守汽车尾气排放标准的规定，并改善燃油效率，引擎控制的精度逐年提高。
引擎控制单元是感测引擎的运行情况和周围的车辆状态并转换为电气信号，来控制引擎的。
提高传感精度和驱动精度，有助于提升引擎的效率。
其基石便是电源。罗姆拥有有助于各种ECU品质提升和节能、小型化的丰富的电源系列产品。
另外，作为分立产品，拥有以点火用IGBT为首的强大的产品阵容，可满足客户不同需求。



引擎控制部产品

LIN收发器 — BD41030FJ-C

符合车载网络标准 LIN Ver.2.1。


SOP-J8

・・・P.27

MOSFET — 60V/100V/200V/250V系列

执行器驱动等各种驱动用途MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。


DPAK

・・・P.48 to 50

肖特基势垒二极管 — 超低 I_R 系列 低 V_F 系列

包括从重视V_F到重视I_R的4个系列。可根据电路选择最佳方案。


PMDU

・・・P.55 to 62

抗浪涌贴片电阻器 — SDR系列 ESR系列

开发出比抗浪涌特性比以往更高的新产品。有助于提高可靠性。


SDR03


ESR03

・・・P.77

双向齐纳二极管 — RSB系列

最适用于LIN、CAN电路的双向齐纳二极管系列。


UMD2

・・・P.67, P.69

IPD — BM2LB110FJ-C

继电器、电磁线圈等各种驱动用途用IPD。

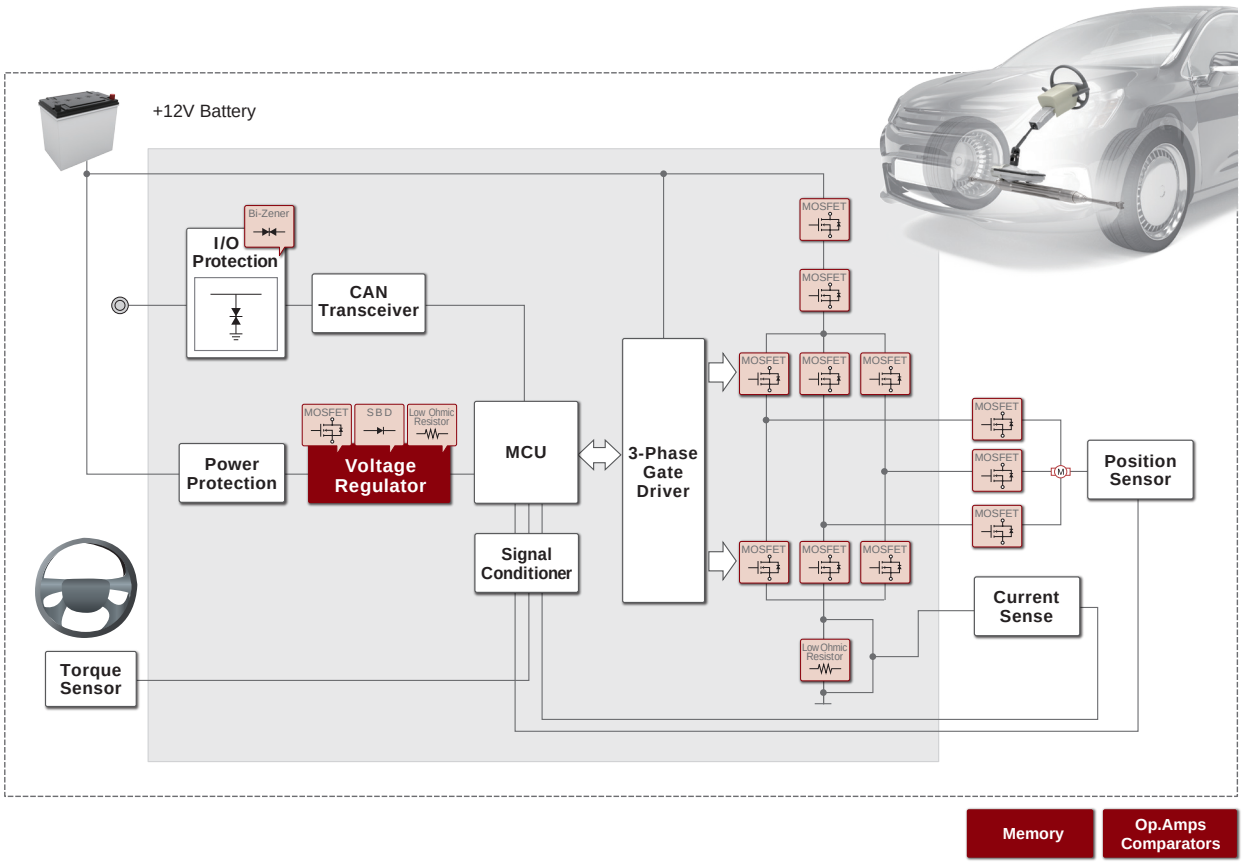

SOP-J8

・・・P.25

电动助力转向系统 (EPS)

近年来，电动助力转向系统(EPS)比液压助力转向系统更受青睐，被广泛应用于大多数新型车上。
由于无需助力转向的泵体，因此车身重量更轻，采用EPS使汽车整体的燃油经济性提高了约3%。
EPS可通过软件进行力矩调整，因此还可实现优异的操作性和驾驶性。
另外，EPS可根据车辆的速度调整转向力矩，在驾驶的关键时刻使之产生转向力矩，从而提高车辆的安全性。
驾驶辅助技术中所谓的“车道保持辅助”、“自动泊车辅助”等EPS的高性能化已经势在必行。

要想实现EPS，可利用力矩传感器检测出转向的位置，通过栅极驱动器+功率晶体管组合来驱动电机。
检测电机的供给电流以进行电机的反馈控制，实现电机的输出力矩、位置控制。
这是使用了微控制器的解决方案，使用可通过SPI通信进行控制的栅极驱动器也可实现。



电动助力转向系统(EPS)产品

MOSFET — 40V系列 60V系列

电机驱动等各种驱动电路用MOSFET。
产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。


DPAK

・・・P.48 to 50

大功率超低阻值分流电阻器 — PSR系列

最大确保5W额定功率，产品阵容包括0.2mΩ开始的超低阻。


PSR500

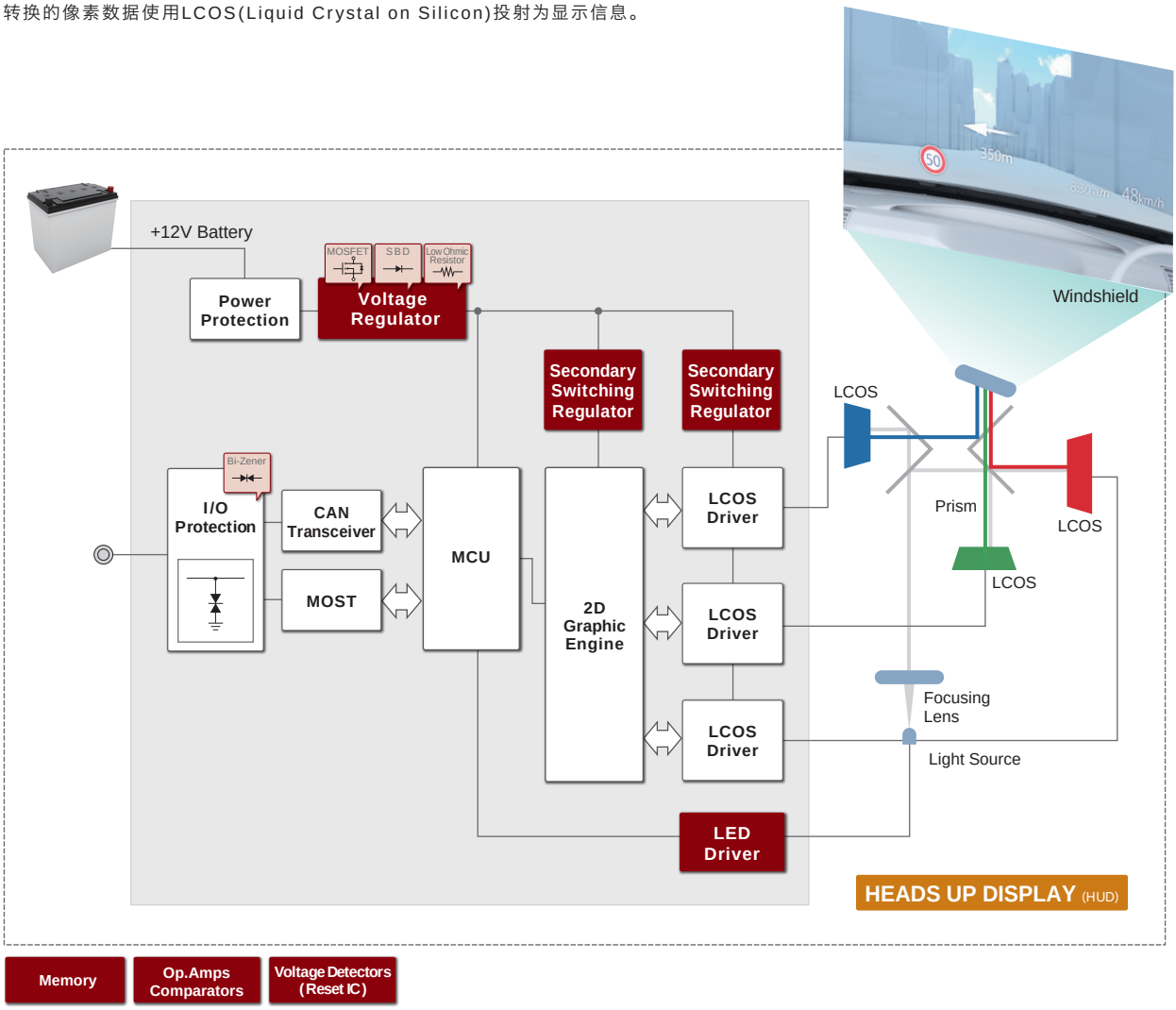
・・・P.82

存储器 ・・・P.32
运算放大器 / 比较器 ・・・P.34
电压检测器 (复位IC) ・・・P.35

平视显示器 (HUD)

汽车的挡风玻璃上已经开始使用平视显示器，是将对驾驶员有用的信息投射到焦距无限远的点进行显示的技术。
该技术原用于战斗机或飞机，近年来由于汽车领域对速度、Navi数据、车辆信息等安全性要求越来越高而备受瞩目。

平视显示器将显示信息进行图像处理后转换为RGB像素。
转换的像素数据使用LCOS(Liquid Crystal on Silicon)投射为显示信息。



Memory | Op.Amps Comparators | Voltage Detectors (Reset IC)

平视显示器用产品

LED驱动器 (背光灯用)

BD81A44EFV-M
BD81A44MUV-M

内置升降压开关稳压器，在电池电压变动时也可稳定工作。

・・・P.24

MOSFET

40V系列
60V系列

电源开关驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。

・・・P.48 to 50

肖特基势垒二极管

超低 I_R 系列
低 V_F 系列

包括从重视V_F到重视I_R的4个系列。可根据电路选择最佳方案。

・・・P.55 to 62

低阻值贴片式电阻器

LTR系列
PMR系列

产品阵容包括1005尺寸～6432尺寸高额定功率/高可靠性低电阻。

・・・P.81

双向齐纳二极管

RSB系列

最适用于LIN、CAN电路的双向齐纳二极管系列。

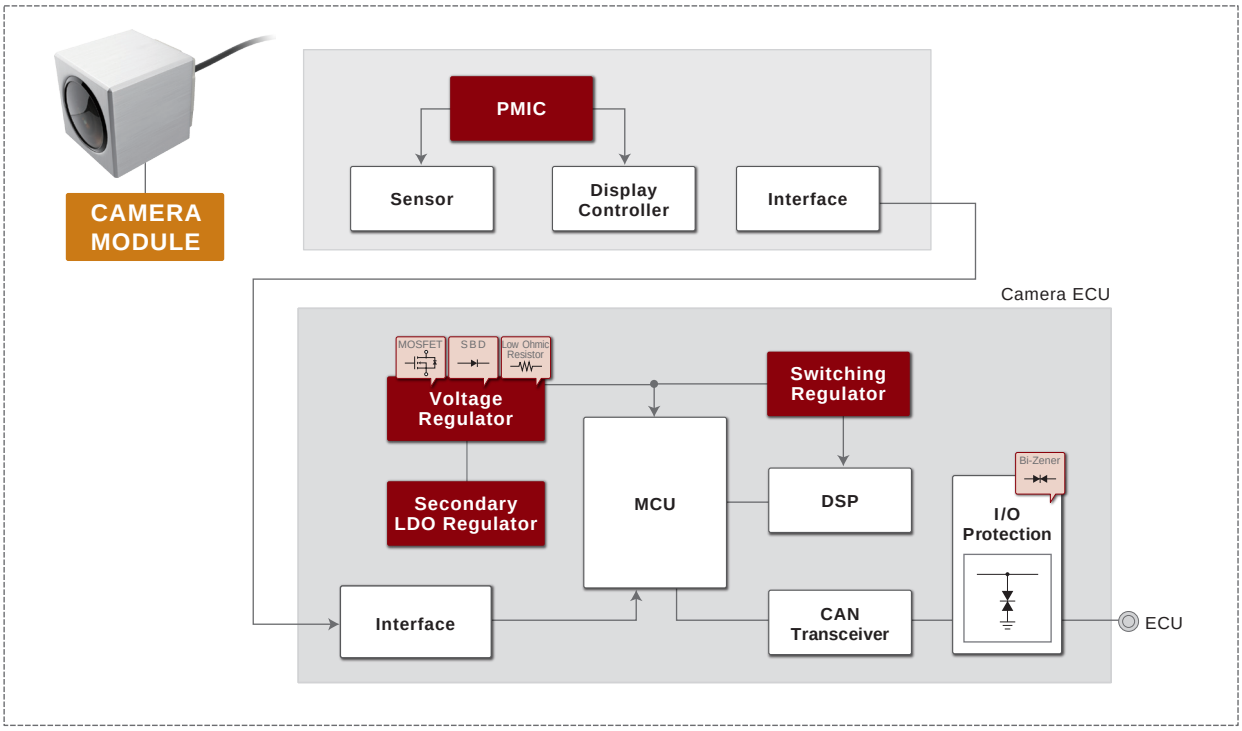
・・・P.67, P.69

存储器 ・・・P.32
运算放大器 / 比较器 ・・・P.34
电压检测器 (复位IC) ・・・P.35

ADAS用相机模块/相机ECU

可满足小型化、大电流化、多输出&复合化等各种需求的DC/DC技术

自美国制定汽车安全技术法规以来，为提高汽车的安全性，越来越多的车辆开始搭载车载相机。
为了在不妨碍汽车设计的情况下搭载相机，要求相机模块的小型化及其中的PMIC的小型化以及消减部件数量。
另外，相机ECU将从这些相机模块和毫米波雷达等获取的车辆周边的物体信息进行信号处理，
将方向盘操作和制动操作的信号/指令传输到各ECU，以实现安全驾驶。
为此，要求高速处理微控制器(或DSP)用的电源具备大电流、高效率、低电压运行等各种性能。
罗姆拥有直接连接电池用的耐高压LDO&DC/DC、次级LDO&DC/DC以及将这些产品组合应用的系统电源(PMIC)等丰富的产品阵容，可满足客户不同的需求。

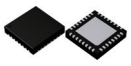


Memory | Op.Amps Comparators | Voltage Detectors (Reset IC)

ADAS用相机模块/相机ECU用产品

车载相机模块用系统电源 BD8682MUV

小型封装，内置多通道电源。拥有可支持CMOS传感器和CCD传感器的产品阵容。


VQFN32SV5050

・・・P.23

MOSFET 40V系列 60V系列

电源开关驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。


SOP8

・・・P.48 to 50

肖特基势垒二极管 超低 I_R 系列 低 V_F 系列

包括从重视V_F到重视I_R的4个系列。可根据电路选择最佳方案。


PMDU

・・・P.55 to 62

低阻值贴片式电阻器 UCR系列

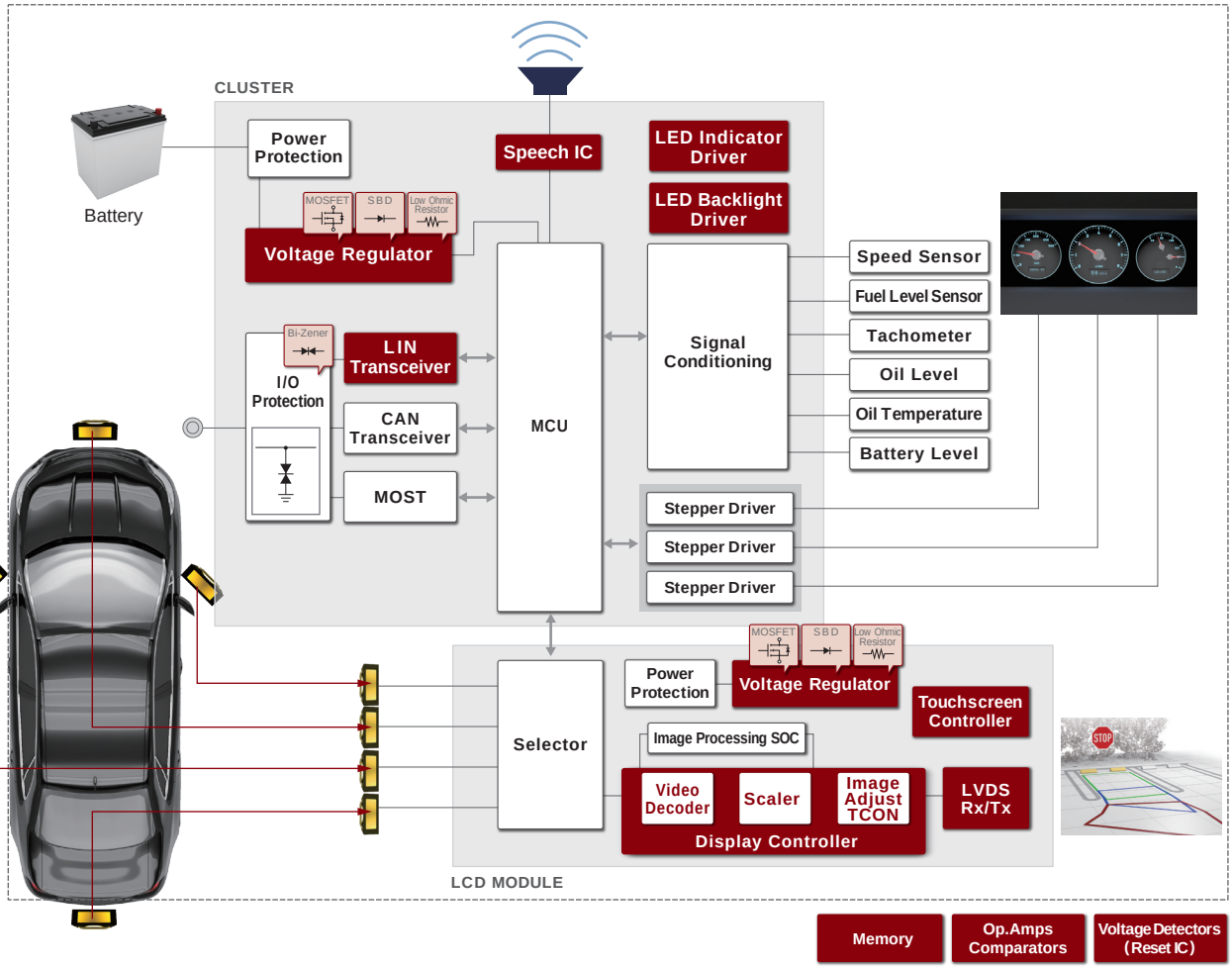
产品阵容包括小型、耐高温、大额定功率的0603尺寸～3216尺寸低电阻。


UCR006

・・・P.80

车载仪表 & LCD显示器

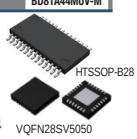
仪表盘是向驾驶员传递车体和引擎状况的装有各种显示设备的面板，
也称为Dashboard。
随着汽车的电动化、高级驾驶辅助系统(ADAS)等的普及，仪表或采用最新LCD面板，或使用显卡，
以提供详细的信息。罗姆拥有丰富的电源系列产品，非常有助于实现进一步节能。



车载仪表&LCD显示器用产品

LED驱动器 (背光灯用)　BD81A44EFV-M / BD81A44MUV-M

内置升降压开关稳压器，在电池电压变动时也可稳定工作。



・・・P.24

LVDS接口　BU17101AKV / BU17102AKV

可将24bit并行数据、30～50MHz并行时钟以1pair Max1.63Gbps的速度进行传输。

・・・P.28

触摸屏控制器　BU21024FV-M

四线模拟电阻膜式触摸屏，可检测两点触摸。

・・・P.27

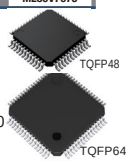
LED驱动器 (指示灯用)　BD8378FV-M / BD8379FV-M

小型封装有助于节省空间。另外，级联可有效驱动众多LED。

・・・P.24

视频解码器　ML86101A / ML86V7675

支持NTSC/PAL/SECAM世界标准三大制式，适用于全球范围应用的影像设备。



・・・P.30

语音合成LSI　ML22(Q)xxx

内置4ch混合功能与扬声器放大器功放，保证+105℃工作温度。另外，搭载车载用途所需的各种故障安全(Fail-safe)功能。

・・・P.29

LED　SML-D15系列

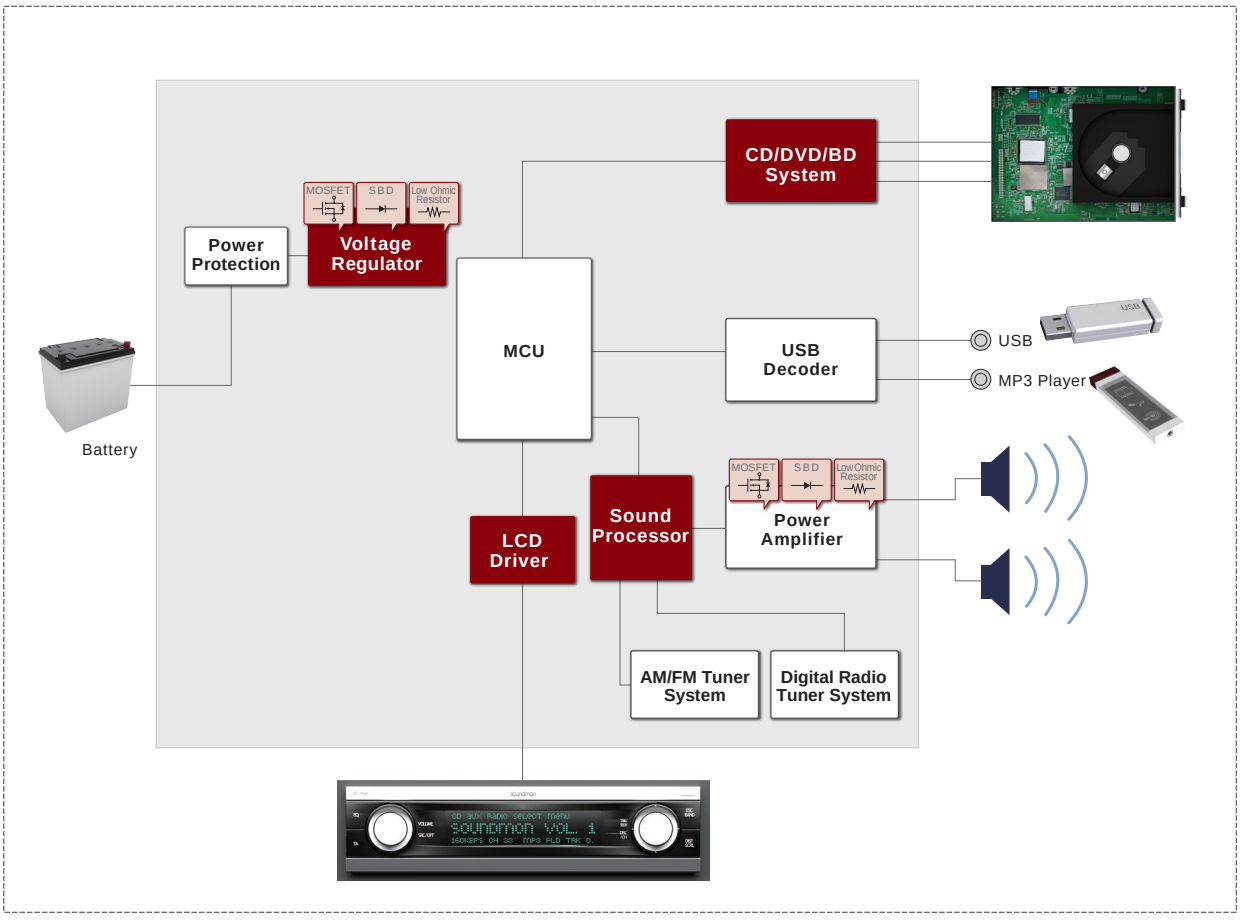
标准尺寸表面贴装型无亮度偏差的高亮度单级 LED。

・・・P.85 to P.86

车载音响

高音质打造舒适的驾驶空间

为了更舒适地享受车中的私人空间，音乐、可获取各种信息的电台广播已成为不可或缺的配置。
近年来，音源呈现多样化趋势，不仅有CD、电台广播、还可使用MP3播放器、USB闪存等。
罗姆的产品改善了多样化音源的连接性，打造出高品质且舒适的驾驶空间。
HEV和EV等车内空间比传统汽车更安静，对音频的高音质要求也随之而来。
罗姆的声音处理器支持高分辨率音源与车内的静音需求，致力于实现完美音质，
汇集罗姆多年积累的模拟技术，大大抑制了低音域的杂音，有助于提高音质。



Memory | Op.Amps Comparators | Voltage Detectors (Reset IC)

车载音响用产品

音频处理器 BD37033FV BD37034FV

利用多年积累的模拟技术，搭载RF噪声消除功能，消除手机来电时对音频设备的影响。


SSOP-B28

・・・P.29

ODD用系统电机驱动器 BD8266EFV BD8255MUV

采用搭载霍尔传感器的驱动器，内置超静音功能及罗姆独有的保护功能，实现高可靠性。

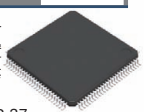

HTSSOP-B24


VQFN48SV7070

・・・P.25

LCD驱动器 BU97530KVT-M

产品功能丰富，不仅具备LCD控制功能，还内置按钮测试、LED调光等操作面板所需的功能。


TQFP100V

・・・P.27

MOSFET 40V系列 60V系列

电源SW驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。


SOP8

・・・P.48 to 50

肖特基势垒二极管 超低 I_R 系列 低 V_F 系列

包括从重视V_F到重视I_R的4个系列。可根据电路选择最佳方案。


PMDU

・・・P.55 to 62

低阻值贴片式电阻器 UCR系列

产品阵容包括小型、耐高温、大额定功率的0603尺寸~3216尺寸低电阻。

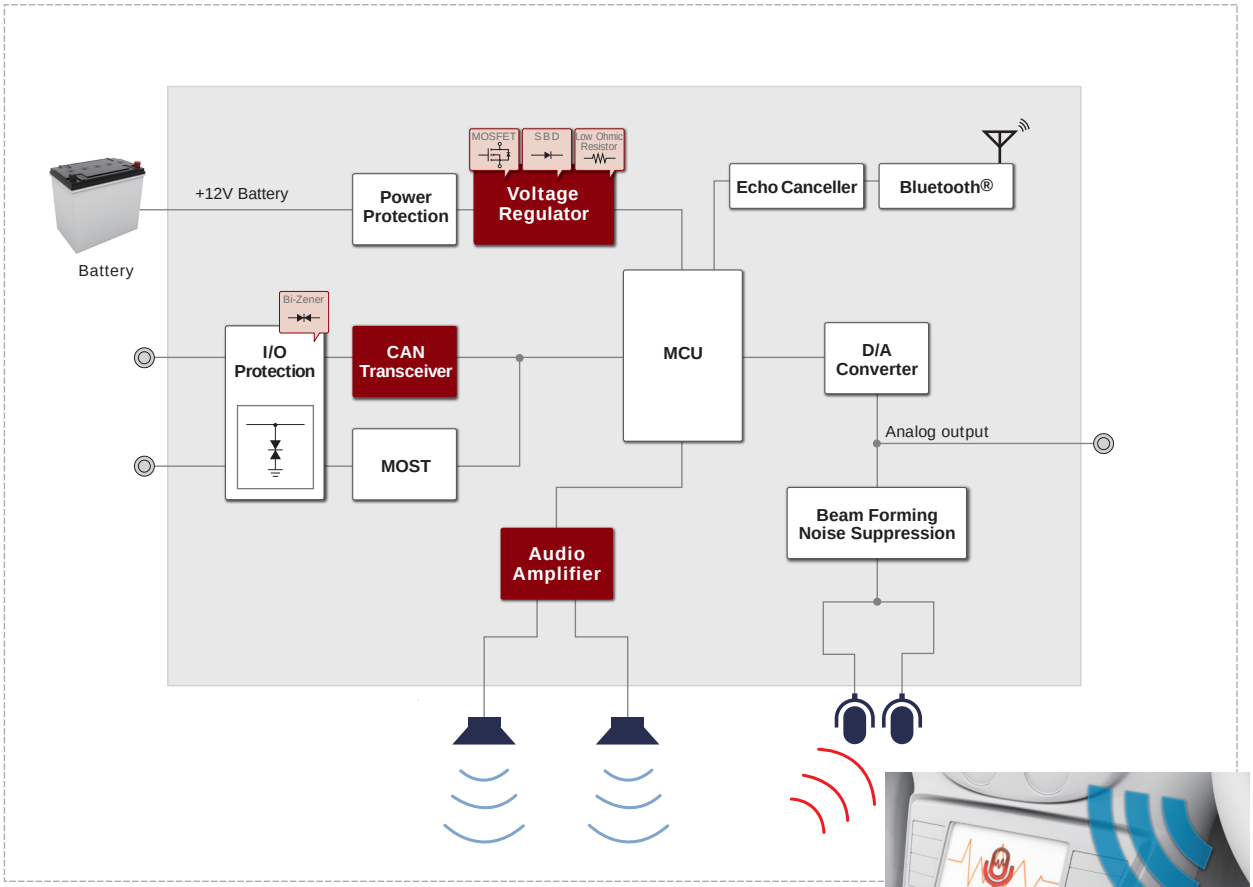
UCR10

・・・P.80

语音界面

支持可实现更安全驾驶的免提操作

为将驾驶员从行驶中的面板操作等繁琐且影响安全性的操作中解放出来，语音输入功能已越来越受到关注。
行驶中的车辆中有很多噪音，安装语音界面需要解决降噪这个重要课题。
目前，有使用波束赋形技术仅捕捉语音的方法。
是仅识别驾驶员所在方向的语音，将其他方向的语音作为噪音过滤掉的系统。
由该ECU连接到HVAC和仪表面板，可实现设定温度、播放喜欢的音乐、操作手机等。



语音界面用产品

音频放大器 BH7824FVM

小型封装有助于节省空间，实现清晰的语音播放。

MSOP8

・・・P.29

MOSFET 40V系列 60V系列

电源SW驱动等各种驱动电路用MOSFET。产品阵容新增采用最新工艺的低$R_{DS(on)}$产品。

SOP8

・・・P.48 to 50

肖特基势垒二极管 超低 I_R 系列 低 V_F 系列

包括从重视V_F到重视I_R的4个系列。
可根据电路选择最佳方案。

PMDU

・・・P.55 to 62

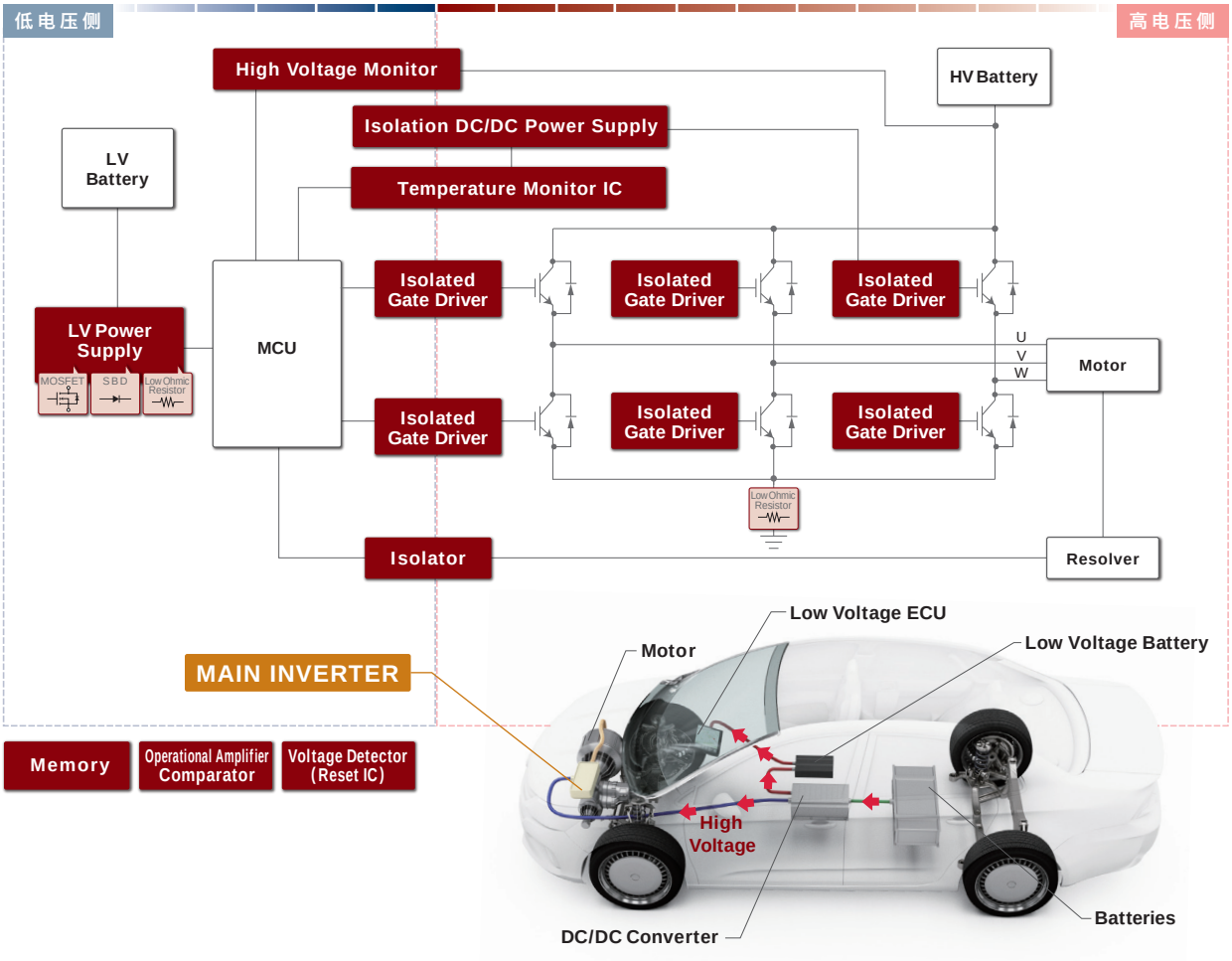
CAN收发器 BD41040FJ-C

行业标准ISO 11898-2.5。

稳压器 ・・・P.18
存储器 ・・・P.32
运算放大器 / 比较器 ・・・P.34
电压检测器 (复位IC) ・・・P.35
双向齐纳二极管 ・・・P.67, P.69
抗浪涌贴片电阻器 ・・・P.77

主逆变器

主逆变器将电池中储备的直流电转换为三相交流电来驱动电机。
罗姆已开发出主逆变器用的具有极高可靠性的各种绝缘IC。
逆变器用的功率元件多使用IGBT和二极管组合的产品，
而可使电阻损耗和开关损耗更低的SiC-MOSFET和SiC-SBD已越来越受到关注。
罗姆率先开发出SiC元器件，工业设备领域用的SiC产品已经实现量产，并在积极向车载领域拓展。
栅极驱动器和隔离器采用片上变压器工艺技术，内置绝缘元件，实现了更长寿命和小型化。



主逆变器产品

绝缘栅极驱动器 BM6104FV-C
小型SSOP-B20W封装，内置栅极驱动器功能和绝缘功能。

SSOP-B20W
・・・P.31

隔离器 BM67220FV-C BM67221FV-C
隔离高电压侧与低电压侧，可实现高速、安全的信号传输。

SSOP-B20W
・・・P.32

温度监测器 BM66002FV-C
监测IGBT、SiC及功率MOSFET的温度。

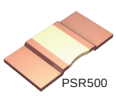
SSOP-B20W
・・・P.32

高电压监测器 BM67290FV-C
将电压值传输给微控制器，以防止IGBT驱动用电压过高，保护IGBT。

SSOP-B20W
・・・P.32

电源 BD9031FV-C
微控制器用电源IC、绝缘升压/升降压电源IC。

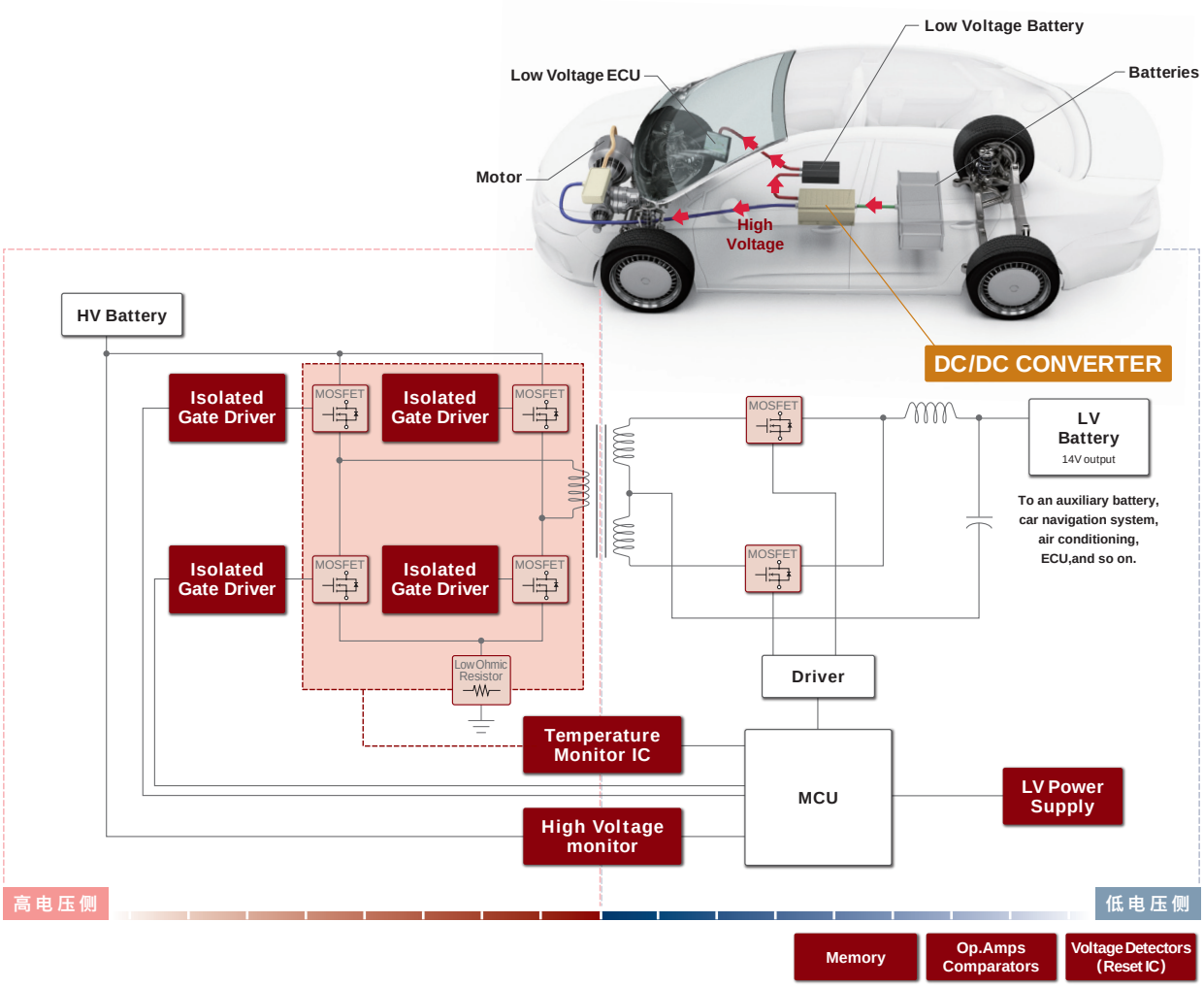
SSOP-B16
・・・P.23

大功率超低阻值分流电阻器 PSR系列
最大确保5W额定功率，产品阵容包括0.2mΩ开始的超低电阻。

PSR500
・・・P.82

存储器 ・・・P.32
运算放大器 / 比较器 ・・・P.34
电压检测器 (复位IC) ・・・P.35

DC / DC转换器

HEV/EV为实现行驶中频繁启停引擎，与传统的发电机方式相比，
需要不受引擎状态影响进行电源供给的DC/DC转换器。
DC/DC转换器由功率元件进行高频开关，
通过变压器从直流高电压电池转换为14V直流低电压，向低电压电池充电。
通过将低电压PCB板和高电压PCB板进行所有接地与信号的电气分离，
以达到防止火灾和触电的目的，因此需要绝缘IC。
罗姆已开发出实现小型化与更长使用寿命的绝缘IC产品。



DC/DC转换器用产品

绝缘栅极驱动器 BM6104FV-C

小型SSOP-B20W封装，内置栅极驱动器功能和绝缘功能。

SSOP-B20W

・・・P.31

隔离器 BM67220FV-C BM67221FV-C

隔离高电压侧与低电压侧，可实现高速、安全的信号传输。

SSOP-B20W

・・・P.32

温度监测器 BM66002FV-C

监测IGBT、SiC及功率MOSFET的温度。

SSOP-B20W

・・・P.32

高电压监测器 BM67290

将高电压电池的输出电压值传输给微控制器，保护功率MOSFET等。

SSOP-B20W

・・・P.32

电源 BD9031FV-C

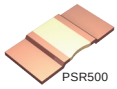
微控制器用电源IC、绝缘升压/升降压电源IC。

SSOP-B16

・・・P.23

大功率超低阻值分流电阻器 PSR系列

最大确保5W额定功率，产品阵容包括0.2mΩ开始的超低电阻。

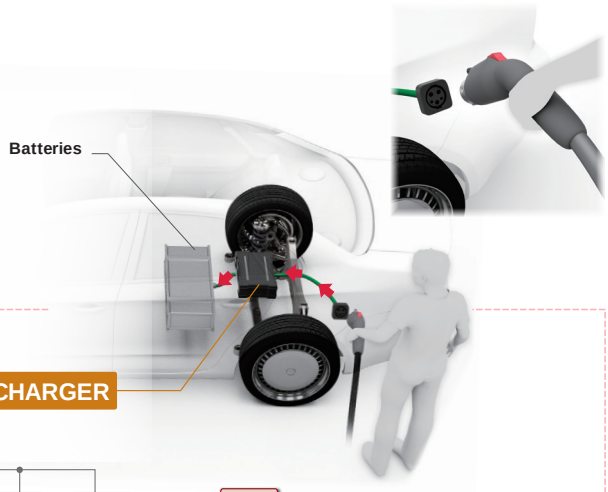


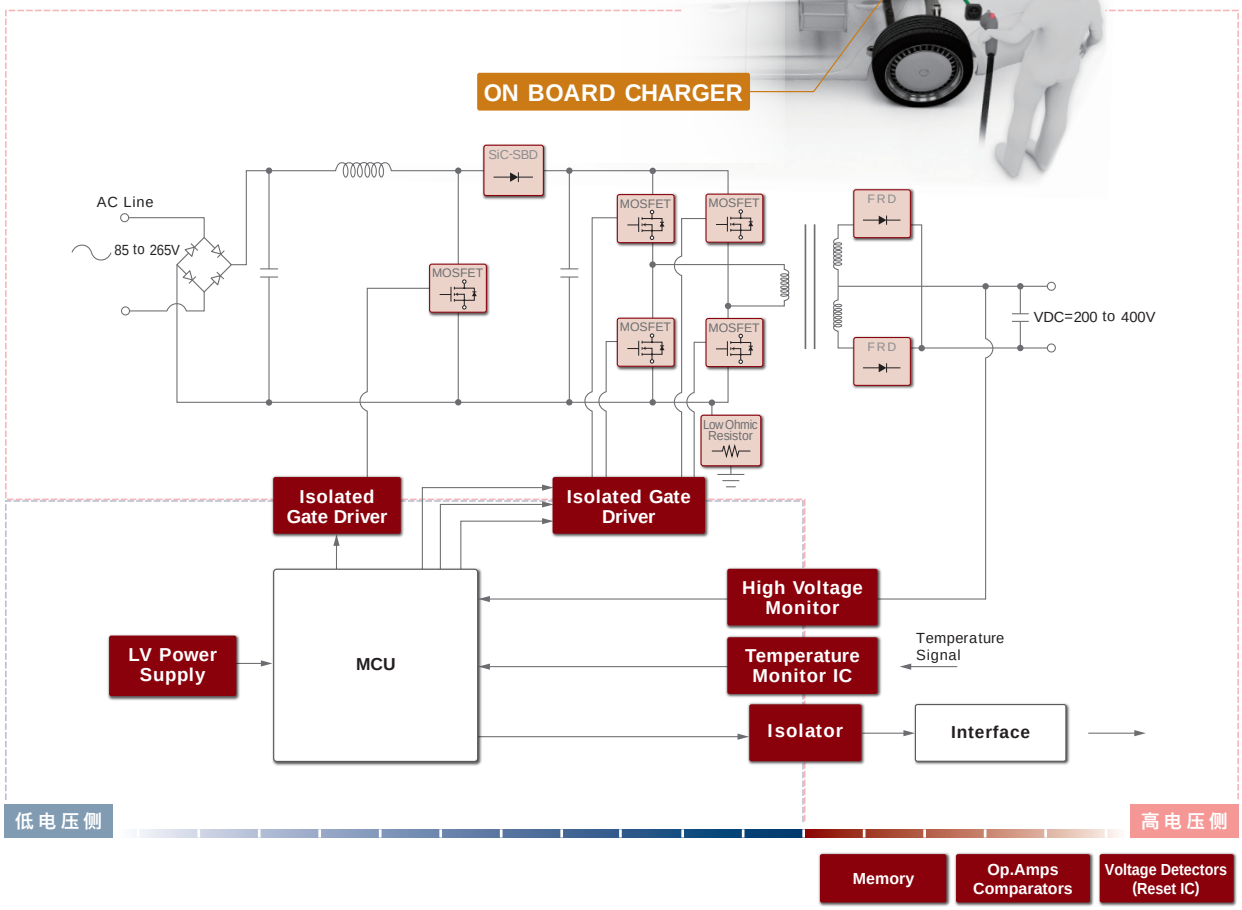
PSR500

・・・P.82

车载充电器

车载充电器(On-board Charger)是将家庭用100V～240V交流电流转换为直流电流，
以对高压电池进行充电的AC/DC转换器。
为支持世界各国的家庭用电源的电压，
车载充电器的容许输入电压为85V～265V。
由于输入电压的变动，要求更稳定、更高效的元器件。
罗姆已经实现包括绝缘IC在内的以SiC-SBD为首的
功率元器件的量产。





车载充电器用产品

绝缘栅极驱动器 BM6104FV-C
小型SSOP-B20W封装，内置栅极驱动器功能和绝缘功能。
・・・P.31

SSOP-B20W

隔离器 BM67220FV-C BM67221FV-C
隔离高电压侧与低电压侧，可实现高速、安全的信号传输。
・・・P.32

SSOP-B20W

温度监测器 BM66002FV-C
监测IGBT、SiC及功率MOSFET的温度。
・・・P.32

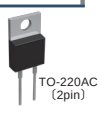
SSOP-B20W

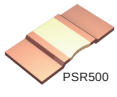
高电压监测器 BM67290FV-C
监测DC/DC转换器的输入电压值。
・・・P.32

SSOP-B20W

电源 BD9031FV-C
微控制器用电源IC、绝缘升压/升降压电源IC。
・・・P.23

SSOP-B16

SiC-SBD SiC-SBD系列
采用业界最低V_F的SBD，有助于电路的高效率化。
・・・P.45

TO-220AC (2pin)

大功率超低阻值分流电阻器 PSR系列
最大确保5W额定功率，产品阵容包括0.2mΩ开始的超低电阻。
・・・P.82

PSR500

存储器 ・・・P.32
运算放大器 / 比较器 ・・・P.34
电压检测器 (复位IC) ・・・P.35

Automotive

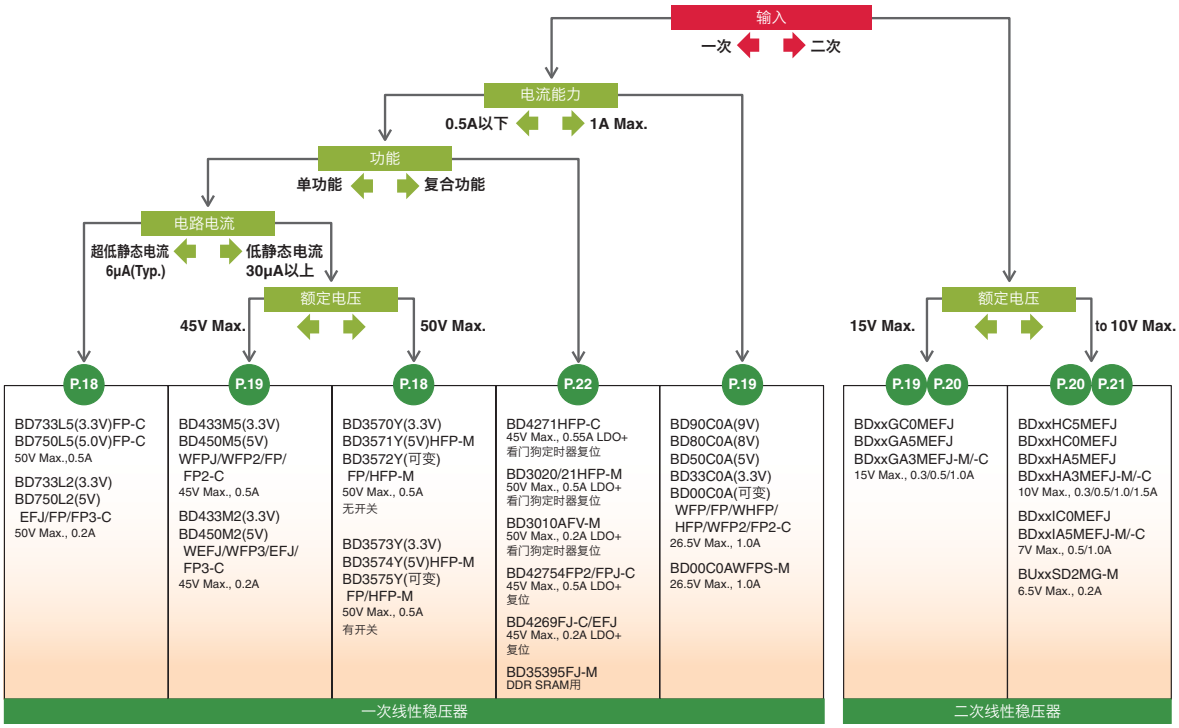
【IC】

目录

电源管理

线性稳压器

车载降压线性稳压器家族系统图



单通道输出 低饱和稳压器（LDO）

关于输入电压，请考虑输出电压值及输入输出电压差后使用。

50V耐压 500mA LDO稳压器

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Saturation Voltage :Io=200mA (V)	Circuit Current (μA)	Operating Temperature (℃)	Shutdown Switch	Protection Circuit	Package
BD3570YFP-M	4.5 to 36.0	3.3	±2 (Ta=−40 to +125℃)	0.5	—	30	Ta=−40 to +125	—	Over-Current/ Temperature	TO252-3
BD3570YHFP-M										HRP5
BD3571YFP-M	5.5 to 36.0	5.0			0.25					TO252-3
BD3571YHFP-M										HRP5
BD3572YFP-M	4.5 to 36.0	Variable 2.8 to 12.0								TO252-5
BD3572YHFP-M										HRP5
BD3573YFP-M		3.3			—			✓		TO252-5
BD3573YHFP-M										HRP5
BD3574YFP-M	5.5 to 36.0	5.0			0.25					TO252-5
BD3574YHFP-M										HRP5
BD3575YFP-M	4.5 to 36.0	Variable 2.8 to 12.0								TO252-5
BD3575YHFP-M										HRP5

50V耐压 低静态电压 200mA LDO稳压器（AEC-Q100）

BD733L2EFJ-C	4.37 to 45.0	3.3	±2 (Ta=−40 to +125℃)	0.2	0.6	6.0	Ta=−40 to +125	—	Over-Current/ Temperature	HTSOP-J8
BD750L2EFJ-C	5.8 to 45.0	5.0			0.4			—		HTSOP-J8
BD733L2FP-C	4.37 to 45.0	3.3			0.6			—		TO252-3
BD733L2FP3-C								—		SOT223-4
BD750L2FP-C	5.8 to 45.0	5.0			0.4			—		TO252-3
BD750L2FP3-C								—		SOT223-4

50V耐压 低静态电压 500mA LDO稳压器（AEC-Q100）

BD733L5FP-C	4.17 to 45.0	3.3	±2 (Ta=−40 to +125℃)	0.5	0.4	6.0	Ta=−40 to +125	—	Over-Current/ Temperature	TO252-3
BD750L5FP-C	5.6 to 45.0	5.0			0.25			—		TO252-3

单通道输出 低饱和稳压器（LDO）

关于输入电压，请考虑输出电压值及输入输出电压差后使用。

45V耐压 低静态电流 500mA LDO稳压器（AEC-Q100）

Type	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Circuit Current (μA)	Operating Temperature (Tj)	Shutdown Switch	Protection Circuit	Package Part No.			
										TO252-3	TO263-3	TO263-5	TO252-J5
BD433M5	4.0 to 42.0	3.3	±2 (Tj = −40 to +150°C)	0.5	0.25 (Io=300mA)	38	−40 to +150°C	—	Over-Current Temperature	BD433M5FP-C	BD433M5FP2-C	—	—
BD450M5	5.5 to 42.0	5.0			0.2 (Io=300mA)			—		BD450M5FP-C	BD450M5FP2-C	—	—
BD433M5W	4.0 to 42.0	3.3			0.25 (Io=300mA)			✓		—	—	BD433M5WFP2-C	BD433M5WFPJ-C
BD450M5W	5.5 to 42.0	5.0			0.2 (Io=300mA)			✓		—	—	BD450M5WFP2-C	BD450M5WFPJ-C

45V耐压 低静态电流 200mA LDO稳压器（AEC-Q100）

Type	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Circuit Current (μA)	Operating Temperature (Tj)	Shutdown Switch	Protection Circuit	Package Part No.	
										HTSOP-J8	SOT223-4
BD433M2	3.9 to 42.0	3.3	±2 (Tj = −40 to +150°C)	0.2	0.2 (Io=100mA)	40	−40 to +150°C	—	Over-Current Temperature	BD433M2EFJ-C	BD433M2FP3-C
BD450M2	5.5 to 42.0	5.0			0.16 (Io=100mA)			—		BD450M2EFJ-C	BD450M2FP3-C
BD433M2W	3.9 to 42.0	3.3			0.2 (Io=100mA)			✓		BD433M2WEFJ-C	BD433M2WFP3-C
BD450M2W	5.5 to 42.0	5.0			0.16 (Io=100mA)			✓		BD450M2WEFJ-C	BD450M2WFP3-C

36V耐压 300mA LDO稳压器（AEC-Q100）

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Circuit Current (mA)	Operating Temperature (°C)	Protection Circuit	Package
BD3650FP-M	5.6 to 30.0	5.0	±2 (Ta=−40 to +125°C)	0.3	0.2 (Io=200mA)	0.5	−40 to +125°C	Over-Current Temperature	TO252-3

35V耐压 1A LDO稳压器（AEC-Q100）

35V Voltage Resistance 1A LDO Regulators（AEC-Q100）: *Vo is Output voltage/Unit : V

Type	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Basic Current (mA)	I/O Voltage Difference (V)	Ripple Rejection (dB)	Load Regulation (V)	Protection Circuit	Package Part No.		
										TO252-3	HRP5	TO263-3
BD33C0A	4.3 to 26.5	3.3	±3.0% (Ta=−40 to +125°C)	1.0	0.5	—	55	* Vo×0.01 (Io=5mA to 1A)	Over-Current Temperature	BD33C0AFP-C	BD33C0AHFP-C	BD33C0AFP2-C
BD50C0A	6.0 to 26.5	5.0				0.3 (Io=500mA)				BD50C0AFP-C	BD50C0AHFP-C	BD50C0AFP2-C
BD80C0A	9.0 to 26.5	8.0					50			BD80C0AFP-C	BD80C0AHFP-C	BD80C0AFP2-C
BD90C0A	10.0 to 26.5	9.0								BD90C0AFP-C	BD90C0AHFP-C	BD90C0AFP2-C

35V耐压 1A LDO稳压器 带关断开关（AEC-Q100）

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Saturation Voltage (V)	Circuit Current (mA)	Operating Temperature (°C)	Protection Circuit	Package
BD00C0AWFPS-M	4.0 to 26.5	Variable 3.0 to 15.0	±3 (Ta=−40 to +105°C)	1.0	0.3 (Io=500mA)	0.5	−40 to +105°C	Over-Current Temperature	TO252S-5

Type	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Basic Current (mA)	I/O Voltage Difference (V)	Ripple Rejection (dB)	Load Regulation (V)	Protection Circuit	Package Part No.		
										TO252-5	HRP5	TO263-5
BD00C0AW	4.0 to 26.5	Variable 1.0 to 15.0	±3.0 (Ta=−40 to +125°C)	1.0	0.5	0.3 (Io=500mA)	55	Vo×0.01 (Io=5mA to 1A)	Over-Current Temperature	BD00C0AWFP-C	BD00C0AWHFP-C	BD00C0AWFP2-C
BD33C0AW	4.3 to 26.5	3.3				—				BD33C0AWFP-C	BD33C0AWHFP-C	BD33C0AWFP2-C
BD50C0AW	6.0 to 26.5	5.0				0.3 (Io=500mA)				BD50C0AWFP-C	BD50C0AWHFP-C	BD50C0AWFP2-C
BD80C0AW	9.0 to 26.5	8.0					50			BD80C0AWFP-C	BD80C0AWHFP-C	BD80C0AWFP2-C
BD90C0AW	10.0 to 26.5	9.0								BD90C0AWFP-C	BD90C0AWHFP-C	BD90C0AWFP2-C

15V耐压 1A LDO稳压器 带关断开关（AEC-Q100）

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Basic Current (mA)	I/O Voltage Difference (V)	Ripple Rejection (dB)	Load Regulation (V)	Input Capacitor (μF)	Output Capacitor (μF)	Shutdown Switch	Protection Circuit	Package
BD00GC0MEFJ-M	4.5 to 14.0	Variable 1.5 to 13.0	±1.0 (Ta=25°C) / ±3.0 (Ta=−40 to +105°C)	1.0	0.6	0.6 (Io=1A)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 1A)	1.0	1.0	✓	Over-Current Temperature	HTSOP-J8
BD15GC0MEFJ-M		1.5											HTSOP-J8
BD18GC0MEFJ-M		1.8											HTSOP-J8
BD25GC0MEFJ-M		2.5											HTSOP-J8
BD30GC0MEFJ-M		3.0											HTSOP-J8
BD33GC0MEFJ-M		3.3											HTSOP-J8
BD50GC0MEFJ-M		5.0											HTSOP-J8
BD60GC0MEFJ-M		6.0											HTSOP-J8
BD70GC0MEFJ-M		7.0											HTSOP-J8
BD80GC0MEFJ-M		8.0											HTSOP-J8
BD90GC0MEFJ-M		9.0											HTSOP-J8
BDJ0GC0MEFJ-M		10.0											HTSOP-J8
BDJ2GC0MEFJ-M		12.0											HTSOP-J8

*Vo is an output voltage in V.

单通道输出 低饱和稳压器（LDO）

关于输入电压，请考虑输出电压值及输入输出电压差后使用。

15V耐压 500mA LDO稳压器 带关断开关（AEC-Q100）

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Basic Current (mA)	I/O Voltage Difference (V)	Ripple Rejection (dB)	Load Regulation (V)	Input Capacitor (μF)	Output Capacitor (μF)	Shutdown Switch	Protection Circuit	Package
BD00GA5MEFJ-M	4.5 to 14.0	Variable 1.5 to 13.0	±1.0 (Ta=25°C) / ±3.0 (Ta=−40 to +105°C)	0.5	0.6	0.6 (Io=500mA)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 500mA)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD15GA5MEFJ-M		1.5											HTSOP-J8
BD18GA5MEFJ-M		1.8											HTSOP-J8
BD25GA5MEFJ-M		2.5											HTSOP-J8
BD30GA5MEFJ-M		3.0											HTSOP-J8
BD33GA5MEFJ-M		3.3											HTSOP-J8
BD50GA5MEFJ-M		5.0											HTSOP-J8
BD60GA5MEFJ-M		6.0											HTSOP-J8
BD70GA5MEFJ-M		7.0											HTSOP-J8
BD80GA5MEFJ-M		8.0											HTSOP-J8
BD90GA5MEFJ-M		9.0											HTSOP-J8
BDJ0GA5MEFJ-M		10.0											HTSOP-J8
BDJ2GA5MEFJ-M		12.0											HTSOP-J8

15V耐压 300mA LDO稳压器 带关断开关（AEC-Q100）

BD00GA3MEFJ-M	4.5 to 14.0	Variable 1.5 to 13.0	±3.0 (Ta=−40 to +105°C)	0.3	0.6	0.6 (Io=300mA)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 300mA)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD15GA3MEFJ-M		1.5											HTSOP-J8
BD18GA3MEFJ-M		1.8											HTSOP-J8
BD25GA3MEFJ-M		2.5											HTSOP-J8
BD30GA3MEFJ-M		3.0											HTSOP-J8
BD33GA3MEFJ-M		3.3											HTSOP-J8
BD50GA3MEFJ-M		5.0											HTSOP-J8
BD60GA3MEFJ-M		6.0											HTSOP-J8
BD70GA3MEFJ-M		7.0											HTSOP-J8
BD80GA3MEFJ-M		8.0											HTSOP-J8
BD90GA3MEFJ-M		9.0											HTSOP-J8
BDJ0GA3MEFJ-M		10.0											HTSOP-J8
BDJ2GA3MEFJ-M		12.0											HTSOP-J8

10V耐压 1.5A LDO稳压器 带关断开关（AEC-Q100）

BD00HC5MEFJ-M	4.5 to 8.0	Variable 1.5 to 7.0	±1.0 (Ta=25°C) / ±3.0 (Ta=−40 to +105°C)	1.5	0.6	0.6 (Io=1.5A)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 1.5A)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD15HC5MEFJ-M		1.5											HTSOP-J8
BD18HC5MEFJ-M		1.8											HTSOP-J8
BD25HC5MEFJ-M		2.5											HTSOP-J8
BD30HC5MEFJ-M		3.0											HTSOP-J8
BD33HC5MEFJ-M		3.3											HTSOP-J8
BD50HC5MEFJ-M		5.0											HTSOP-J8
BD60HC5MEFJ-M		6.0											HTSOP-J8
BD70HC5MEFJ-M		7.0											HTSOP-J8

10V耐压 1A LDO稳压器 带关断开关（AEC-Q100）

BD00HC0MEFJ-M	4.5 to 8.0	Variable 1.5 to 7.0	±1.0 (Ta=25°C) / ±3.0 (Ta=−40 to +105°C)	1.0	0.6	0.6 (Io=1A)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 1A)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD15HC0MEFJ-M		1.5											HTSOP-J8
BD18HC0MEFJ-M		1.8											HTSOP-J8
BD25HC0MEFJ-M		2.5											HTSOP-J8
BD30HC0MEFJ-M		3.0											HTSOP-J8
BD33HC0MEFJ-M		3.3											HTSOP-J8
BD50HC0MEFJ-M		5.0											HTSOP-J8
BD60HC0MEFJ-M		6.0											HTSOP-J8
BD70HC0MEFJ-M		7.0											HTSOP-J8

单通道输出 低饱和稳压器（LDO）

关于输入电压，请考虑输出电压值及输入输出电压差后使用。

10V耐压 500mA LDO稳压器 带关断开关（AEC-Q100）

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	Basic Current (mA)	I/O Voltage Difference (V)	Ripple Rejection (dB)	Load Regulation (mV)	Input Capacitor (μF)	Output Capacitor (μF)	Shutdown Switch	Protection Circuit	Package
BD00HA5MEFJ-M	4.5 to 8.0	Variable 1.5 to 7.0	±1.0 (Ta=25°C) / ±3.0 (Ta=−40 to +105°C)	0.5	0.6	0.6 (Io=500mA)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 500mA)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD15HA5MEFJ-M		1.5											HTSOP-J8
BD18HA5MEFJ-M		1.8											HTSOP-J8
BD25HA5MEFJ-M		2.5											HTSOP-J8
BD30HA5MEFJ-M		3.0											HTSOP-J8
BD33HA5MEFJ-M		3.3											HTSOP-J8
BD50HA5MEFJ-M		5.0											HTSOP-J8
BD60HA5MEFJ-M		6.0											HTSOP-J8
BD70HA5MEFJ-M		7.0											HTSOP-J8

10V耐压 300mA LDO稳压器 带关断开关（AEC-Q100）

BD00HA3MEFJ-M	4.5 to 8.0	Variable 1.5 to 7.0	±1.0 (Ta=25°C) / ±3.0 (Ta=−40 to +105°C)	0.3	0.6	0.6 (Io=300mA)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 300mA)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD15HA3MEFJ-M		1.5											HTSOP-J8
BD18HA3MEFJ-M		1.8											HTSOP-J8
BD25HA3MEFJ-M		2.5											HTSOP-J8
BD30HA3MEFJ-M		3.0											HTSOP-J8
BD33HA3MEFJ-M		3.3											HTSOP-J8
BD50HA3MEFJ-M		5.0											HTSOP-J8
BD60HA3MEFJ-M		6.0											HTSOP-J8
BD70HA3MEFJ-M		7.0											HTSOP-J8

7V耐压 1A LDO稳压器 带关断开关（AEC-Q100）

BD00IC0MEFJ-M	2.3 to 5.5	Variable 0.8 to 4.5	±3.0 (Ta=−40 to +105°C)	1.0	0.3	0.4 (Io=1A)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 1A)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD10IC0MEFJ-M	2.4 to 5.5	1.0											HTSOP-J8
BD12IC0MEFJ-M		1.2											HTSOP-J8
BD15IC0MEFJ-M		1.5											HTSOP-J8
BD18IC0MEFJ-M		1.8											HTSOP-J8
BD25IC0MEFJ-M		2.5											HTSOP-J8
BD30IC0MEFJ-M		3.0											HTSOP-J8
BD33IC0MEFJ-M		3.3											HTSOP-J8

7V耐压 500mA LDO稳压器 带关断开关（AEC-Q100）

BD00IA5MEFJ-M	2.3 to 5.5	Variable 0.8to 4.5	±1.0 / ±3.0 (Ta=−40 to +105°C)	0.5	0.25	0.4 (Io=500mA)	60 (f=100Hz, 50mVpp, Io=0A)	25 (Io=0 to 500mA)	1.0	1.0	✓	Over-Current/ Temperature	HTSOP-J8
BD10IA5MEFJ-M		1.0											HTSOP-J8
BD12IA5MEFJ-M		1.2											HTSOP-J8
BD15IA5MEFJ-M		1.5											HTSOP-J8
BD18IA5MEFJ-M		1.8											HTSOP-J8
BD25IA5MEFJ-M		2.5											HTSOP-J8
BD30IA5MEFJ-M		3.0											HTSOP-J8
BD33IA5MEFJ-M		3.3											HTSOP-J8

200mA CMOS LDO稳压器 带关断开关（AEC-Q100）

Part No.	Input Voltage (V)	Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (mV)	Ripple Rejection (dB)	Load Regulation (mV)	Circuit Current (μA)	Output Short Current (mA)	Input Capacitor (μF)	Output Capacitor (μF)	Shutdown Switch	Over Current Protection	Temperature Protection	Discharge Function	Package
BU12SD2MG-M	1.7 to 6.0	1.20	±2 (Ta=−40 to +105°C)	0.2	400 (Io=100mA)	68	1 (Io=1mA to 200mA)	33	100	1.0	1.0	✓	✓	✓	—	SSOP5
BU15SD2MG-M		1.50			280 (Io=100mA)											SSOP5
BU18SD2MG-M		1.80			150 (Io=100mA)											SSOP5
BU25SD2MG-M		2.50			100 (Io=100mA)											SSOP5
BU28SD2MG-M		2.80			85 (Io=100mA)											SSOP5
BU30SD2MG-M		3.00														SSOP5
BU33SD2MG-M		3.30														SSOP5

带看门狗计时器 低饱和稳压器

550mA LDO稳压器+看门狗计时器复位（AEC-Q100）

Part No.	Input Voltage (V)	LDO				Voltage Detector			Circuit Current (μA)	Operating Temperature (°C)	Package
		Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Detection Voltage (V)	Voltage Detector Precision (%)	Function			
BD4271HFP-C	5.5 to 45	5	±2 (Tj=−40 to +150°C)	0.55	0.3 (Io=300mA)	4.65	±2.6 (Tj=−40 to +150°C)	4.65V Voltage Detector+WDT	75	Tj= −40 to +150	HRP7

500mA LDO稳压器+看门狗计时器复位

Part No.	Input Voltage (V)	LDO				Voltage Detector			Circuit Current (μA)	Operating Temperature (°C)	Package
		Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Detection Voltage (V)	Voltage Detector Precision (%)	Function			
BD3021HFP-M	5.6 to 36.0	5	±2 (Ta=−40 to +125°C)	0.5	0.3 (Io=200mA)	4.5	±2	4.5V Voltage Detector+WDT (Active switch)	80	Ta= −40 to +150	HRP7
BD3020HFP-M						Variable (at Vs open:4.1V)		Adjustable Voltage Detector+WDT			HRP7

200mA LDO稳压器+看门狗计时器复位

Part No.	Input Voltage (V)	LDO				Voltage Detector			Circuit Current (μA)	Operating Temperature (°C)	Package
		Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Detection Voltage (V)	Voltage Detector Precision (%)	Function			
BD3010AFV-M	5.6 to 36.0	5	±2 (Ta=−40 to +125°C)	0.2	0.25 (Io=150mA)	Variable (RADJ open:4.25V)	±3	Adjustable Voltage Detector+WDT	80	Ta= −40 to +150	SSOP-B20

带电压检测器 低饱和稳压器

500mA LDO稳压器+复位（AEC-Q100）

Part No.	Input Voltage (V)	LDO				Voltage Detector			Circuit Current (μA)	Operating Temperature (°C)	Package
		Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Detection Voltage (V)	Voltage Detector Precision (%)	Function			
New BD42754FP2-C	5.5 to 45.0	5	±2 (Tj=−40 to +150°C)	0.5	0.25 (Io=300mA)	4.62	−2.6%+2.8% (Tj=−40 to +150°C)	4.62V Voltage Detector	75	Tj= −40 to +150	TO263-5

200/300mA LDO稳压器+复位（AEC-Q100）

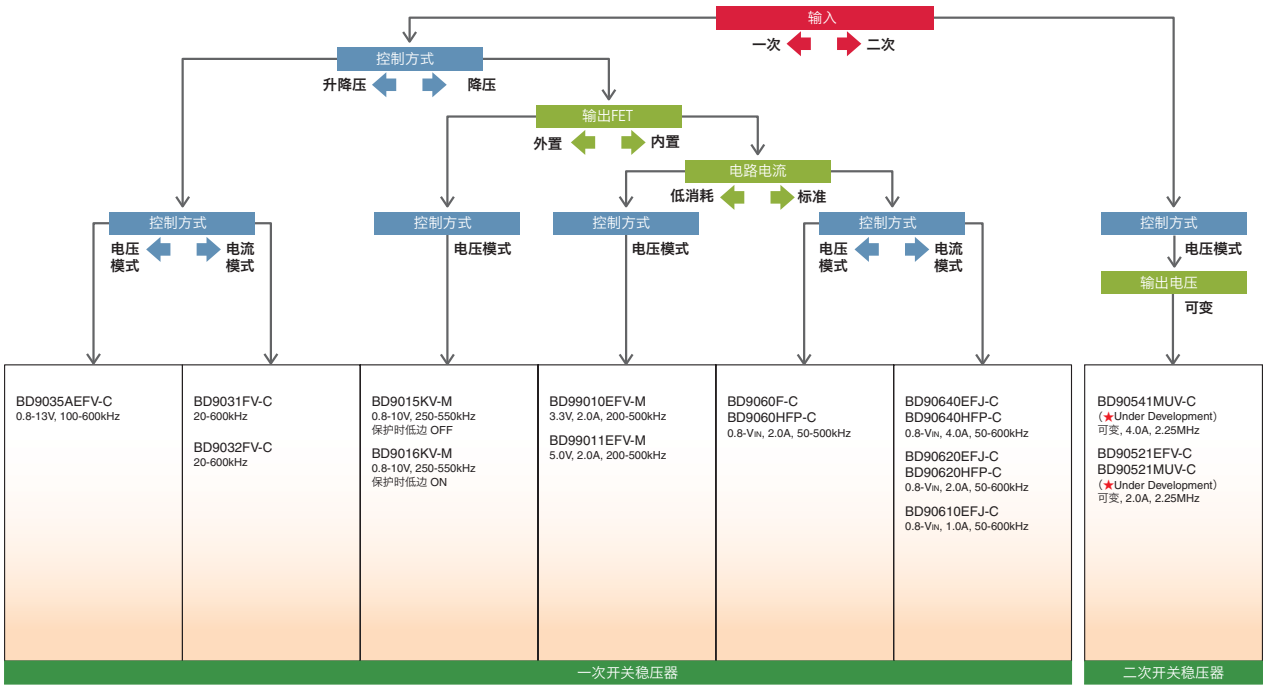
Part No.	Input Voltage (V)	LDO				Voltage Detector		Battery Voltage Detector	Circuit Current (μA)	Operating Temperature (Tj)	Package
		Output Voltage (V)	Output Voltage Precision (%)	Output Current (A)	I/O Voltage Difference (V)	Detection Voltage (V)	Voltage Detector Precision (%)	Detection Voltage (V)			
New BD4269FJ-C	5.5 to 45.0	5	±2 (Tj=−40 to +150°C)	0.2	0.25 (Io=100mA)	Variable (at RADJ open:4.62V)	±2.6	Variable	70	Tj= −40 to +150	SOP-J8
New BD4269EFJ-C				0.3		Variable (RADJ not used: 4.62V)					HTSOP-J8

DDR SDRAM用线性稳压器

DDR SDRAM用终端稳压器

Part No.	V_{CC} Input Voltage Range (V)	V_{TT_IN} Terminal Input Voltage (V)	V_{DDQ} Standard Input Voltage (V)	V_{TT} Output Voltage (V)	V_{TT} Voltage Precision (mV)	V_{TT} Output Current (A)	V_{REF} Output Current (mA)	Function														Package
								Enable	Soft Start	Power Gud	UVLO	Output Ceramic Capacitors	Thermal Shut Down	DDR (V_{DDQ})								
														DDR1 (2.5V/2.6V)	DDR2 (1.8V)	DDR2L (1.5V)	LPDDR2 (1.2V)	DDR3 (1.5V)	DDR3L (1.35V)	DDR3U (1.25V)	LPDDR3 (1.2V)	DDR4 (1.2V)	
BD35395FJ-M	2.7 to 5.5	1.0 to 5.5	1.0 to 2.75	0.5 to 1.375	±13.5	±1.0	—	✓	✓	✓	✓	✓	Recovery	✓	✓	✓	—	✓	✓	—	—	—	SOP-J8

开关稳压器



开关稳压器

FET内置型 单通道输出 1A输出（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Supply Voltage (V)	Output Current (A)	Output Voltage (V)	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Frequency Accuracy (%)	Oscillation Circuit	Control Mode	Package
New BD90610EFJ-C	42	3.5 to 36.0	1.25 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 600	±10	Self-oscillation/External synchronization	PWM	HTSOP-J8
BD90201FV-M	36	7.0 to 33.0	1.75 (Isw)	Variable (1.145 to Vcc×0.643)	±2.0	−40 to +105	500 to 2300	±10	Self-oscillation	PWM	SSOP-B20W

开关稳压器

FET内置型 单通道输出 2A输出（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Supply Voltage (V)	Output Current (A)	Output Voltage (V)	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Frequency Accuracy (%)	Oscillation Circuit	Control Mode	Package
New BD90620EFJ-C	42	3.5 to 36.0	2.5 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 600	±10	Self-oscillation/External synchronization	PWM	HTSOP-J8
New BD90620HFP-C	42	3.5 to 36.0	2.5 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 600	±10	Self-oscillation/External synchronization	PWM	HRP7
BD9060HFP-C	36	5.0 to 35.0	2.0 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 500	±5	Self-oscillation/External synchronization	PWM	HRP7
BD9060F-C	36	5.0 to 35.0	2.0 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 500	±5	Self-oscillation/External synchronization	PWM	SOP8

FET内置型 单通道输出 4A输出（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Supply Voltage (V)	Output Current (A)	Output Voltage (V)	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Frequency Accuracy (%)	Oscillation Circuit	Control Mode	Package
New BD90640EFJ-C	42	3.5 to 36.0	4 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 600	±10	Self-oscillation/External synchronization	PWM	HTSOP-J8
New BD90640HFP-C	42	3.5 to 36.0	4 (Isw)	Variable (0.8 to V_{IN})	±2.0	−40 to +125	50 to 600	±10	Self-oscillation/External synchronization	PWM	HRP7

FET内置型 低静态电流/同步整流型（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Supply Voltage (V)	Output Current (A)	Output Voltage (V)	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Frequency Accuracy (%)	Oscillation Circuit	Control Mode	Package
BD99010EFV-M	42	3.6 to 35.0	2 (Isw)	3.3	±2.0	−40 to +105	200 to 500	±20	Self-oscillation	Light load mode/PWM	HTSSOP-B24
BD99011EFV-M	42	3.6 to 35.0	2 (Isw)	5	±2.0	−40 to +105	200 to 500	±20	Self-oscillation	Light load mode/PWM	HTSSOP-B24

FET外置型 单通道输出 绝缘/升压型（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Power Supply Voltage (V)	Output Type	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Package
BD9031FV-C	35	4.5 to 30.0	Push Pull	±1.5	−40 to +125	20 to 600	SSOP-B16
BD9032FV-C	40	3.5 to 35.0	Push Pull	±1.5	−40 to +125	20 to 600	SSOP-B16

FET外置型 双通道输出 升压/降压型（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Power Supply Voltage (V)	Output Type	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Overvoltage Protection is Detected	Package
BD9015KV-M	35	3.9 to 30.0	Push Pull	±1.5（−40 to +105°C）	−40 to +105	250 to 550	L-side FET OFF	VQFP48C
BD9016KV-M	35	3.9 to 30.0	Push Pull	±1.5（−40 to +105°C）	−40 to +105	250 to 550	L-side FET ON	VQFP48C

FET外置型 单通道输出 升降压型（AEC-Q100）

Part No.	Input Voltage Maximum Rating (V)	Power Supply Voltage (V)	Output Type	Reference Voltage Accuracy (%)	Operating Temperature (°C)	Operating Frequency (kHz)	Overvoltage Protection is Detected	Package
BD9035AEFV-C	35	3.8 to 30	Push Pull	±1.5（−40 to +125°C）	−40 to +125	100 to 600	Automatic switchover	HTSSOP-B24

开关稳压器（系统电源）

车载摄像头模块用系统电源

用于CCD传感器（AEC-Q100）

Part No.	Supply Voltage (V)	Functions			Output Voltage (V)	Output Current Capacity (A)	Reset Voltage (V)	Operating Frequency (kHz)	Standby Current (μA)（Typ.）	Package
BD8682MUV-M	5.9 to 18.0	High Voltage Step-down DC/DC	ch1	—	Variable	0.5	—	500	0	VQFN32SV5050
		LDO	ch2	Sensor	2.8V/3.3V	0.13	V_{O2}×0.86	—		
		LDO	ch3		1.8V/OFF	0.06	—	—		
		Step-down DC/DC	ch4	DSP	1.2V/1.5V/1.8V	0.25	—	1000		

音响用系统电源

汽车音响用系统电源IC（AEC-Q100）

Part No.	Supply Voltage (V)	Functions		Reference Voltage (V)	Output Current (A)	Protection Circuit		Input Interface	Package
						Overcurrent	Temperature		
BD49101AEFS-M	5.5 to 25.0	Step-down DCDC1	Controller	0.8	—	With short-circuit protection circuit current limit	✓	I^2C	HTSSOP-A44
		Step-down DCDC2	REG switching function for standby	0.8	1				
		REG1	Secondary	0.6	0.5	Fold Back			
		REG2	—	0.8	0.1				
		REG3	Secondary	0.8	0.3				
		REG4	Secondary, voltage correction function	0.8	1.5（Variable）				
		REG5	—	0.8	0.1				
		High side switch	—	—	0.5				
		+B detection circuit	Overcurrent and low voltage detection	—	—	—			

系统电源

3ch系统电源（AEC-Q100）

Part No.	Supply Voltage	Operating Frequency	Operating Temperature	Cincuiee	Output Accuracy	Output		Functions					Package
						Channel Number	Output Voltage/Maximum Current	Over Current Protection	Overheat Protection	Overflow voltage detection	Reset	WDT	
BD39001EKV-C	4V to 30V (Rated 40V)	200kHz to 550kHz	−40°C to +125°C	✓	±2%	CH1 (DCDC)	Buck-boost controller (variable voltage/current)	✓	✓	✓	—	WINDOW WDT	HTQFP48V
						CH2 (DCDC)	Synchronous rectifier step-down converter (3.3V,0.9A)				✓		
						CH3 (LDO)	LDO (5V,0.6A)						

2ch系统电源（AEC-Q100）

Part No.	Supply Voltage	Operating Frequency	Operating Temperature	Cincuiee	Output Accuracy	Output		Functions					Package
						Channel Number	Output Voltage/Maximum Current	Over Current Protection	Overheat Protection	Overflow voltage detection	Reset	WDT	
BD39002EFV-C	4V to 30V (Rated 40V)	200kHz to 550kHz	−40°C to +125°C	✓	±2%	CH1 (DCDC)	Buck-boost controller (variable voltage/current)	✓	✓	✓	—	WINDOW WDT	HTSSOP-B30
						CH2 (LDO)	LDO (5V,0.6A)				✓		
BD39012EFV-C	4V to 36V (Rated 45V)	200kHz to 600kHz	−40°C to +125°C	External Control EN1:DCDC EN2:LDO	±2%	CH1 (DCDC)	Synchronous rectifier step-down converter (variable output voltage, 1A)	✓	✓	✓	—	WINDOW WDT	HTSSOP-B24
						CH2 (LDO)	LDO (5V,0.4A)				✓		

绝缘 / 非绝缘型电源

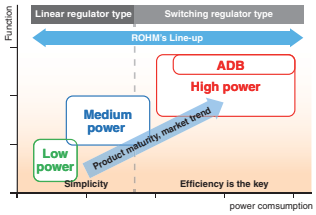
DC/DC转换器

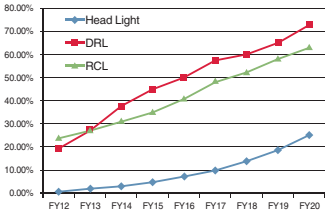
Part No.	Topology	Primary/Secondary	Supply Voltage (V)	Switching Frequency (kHz)	Frequency Synchronization	I/F	Package
BD8325FVT-M	Active Clamp Forward	Primary C	9 to 18	50 to 500	✓	—	TSSOP-B30

LED驱动器

LED Drivers

Exterior

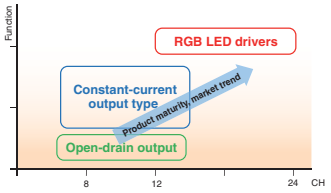




车载灯特别是DRL、CHMSL中使用LED的情况不断增多。LED能够使设计自由度提升，因此在RCL或方向指示灯上LED的使用也在加速推进。前照灯(Low/High光束)使用LED会发生散热问题。但由于引入ADB（Adaptive Driving Beam）的关键是LED，因此LED的使用也在扩大。

ROHM's Line-up	Linear type		Switching type	
	2W	4W	2W	4W
Fog/ Position/ Daytime Running Light	✓ BD8374/BD8372 BD83732/BD83733	✓	—	✓ BD8381
Front/ Side/ Rear turn Indicator	✓ BD8374/BD8372 BD83732/BD83733	✓	—	
Rear Combination Lamp (RCL)	✓ BD8374/BD8372 BD83732/BD83733	✓	—	
Center High Mounted Stop Light (CHMSL)	—	✓ BD8374/BD8372 BD83732/ BD83733	—	
Head Light (Low Beam)	✓ BD8374/BD8372 BD83732/BD83733	—	✓ BD8381	✓
Head Light (High Beam)	—		✓ BD8381	—

Interior



仪表灯，中控台灯、气氛灯、顶灯、地图灯、其他汽车内部灯都逐渐用到LED。如框图（P.9）所示，平视显示器的光源也由LED灯构成。汽车内部灯中使用的LED驱动器的关键要素是通道数、接口、输出类型（开漏极、恒流等）。

	Open-drain	Const current	RGB LED driver
Dashboard backlight	✓ BD8378/BD8379	✓ BD18377	✓ BD2808
Ambient lighting	✓ BD8378/BD8379	✓ BD18377	✓ BD2808
Dome and map lighting	—	✓ BD18377	—
Mood lighting	—	—	✓ BD2808
LCD backlighting	✓ BD8378/BD8379	✓ BD18377	✓ BD2808

升降压 LED驱动器

白色LED驱动器

Part No.	Power Supply (V)	Boost FET	Number of Channel (ch)	Output Voltage (V)	Output Current (mA)	Switching Frequency (MHz)	Brightness Control	Operating Temperature (°C)	Package
☆BD81A44EFV-M*	4.5 to 35.0	External	4	35Max.	120Max./ch	0.2 to 2.2	PWM	−40 to +125	HTSSOP-B28
☆BD81A44MUV-M*	4.5 to 35.0	External	4	35Max.	120Max./ch	0.2 to 2.2	PWM	−40 to +125	VQFN28SV5050
BD8119FM-M	5.0 to 30.0	External	4	30Max.	120Max./ch	0.25 to 0.55	PWM	−40 to +95	HSOP-M28

车前灯用 白色LED驱动器（AEC-Q100）

Part No.	Power Supply (V)	Application	Number of Channel (ch)	Maximum Input Voltage (V)	Drive Current	Dimmer Mode	DC/DC	Operating Temperature (°C)	Package
BD8381AEFV-M	5.0 to 30.0	Head Lamp/DRL	1	50	Depend on Extra parts	PWM/DC	Buck-Boost, Boost,Buck	−40 to +125	HTSSOP-B28

* : AEC-Q100 Qualified ☆ : Under Development

恒流/串入并出 LED驱动器

并行输出 LED驱动器（AEC-Q100）

Part No.	Supply Voltage (V)	Output Voltage (V)	No.of Output (ch)	Output Method	Max.LED Current	Each Output Format	Other	Control Method	Max.Clock Frequency	Package
BD8378FV-M	3.0 to 5.5	35	8	Open Drain	50mA/ch	ON/OFF	—	Shift Resister Latch	1.25MHz	SSOP-B16
BD8379FV-M	3.0 to 5.5	35	12	Open Drain	50mA/ch	ON/OFF	—	Shift Resister Latch	1.25MHz	SSOP-B20
BD18377EFV-M	3.0 to 5.5	10	12	Constant Current	50mA/ch	Built-in 64-step current DAC	PWM control for all channel	SPI	1.25MHz	HTSSOP-B20
New BD2808MUV-M	3.0 to 5.5	20	RGB×8 (24ch)	Constant Current	50mA/ch	Built-in 64-step current DAC for RGB	Built-in 256-step PWM control for all channel	2-Wire Serial	1.0MHz	VQFN48MCV070

LED源级驱动器（AEC-Q100）

Part No.	Power Supply (V)	Application	Number of Channel (ch)	Maximum Input Voltage (V)	Maximum Current (mA)	Dimmer Mode	Accuracy of Current	Operating Temperature (°C)	Package
BD8372EFJ-M	5.5 to 40.0	DRL/Turn/Rear	1	50	200	High Current/ Low Current	±3% (Ta=25°C)	−40 to +125	HTSOP-J8
BD8372HFP-M	5.5 to 40.0	DRL/Turn/Rear	1	50	200	High Current/ Low Current	±3% (Ta=25°C)	−40 to +125	HRP7
BD8374EFJ-M	4.5 to 42.0	DRL/Turn/Rear	1	50	500	PWM	±3% (Ta=25°C)	−40 to +125	HTSOP-J8
BD8374HFP-M	4.5 to 42.0	DRL/Turn/Rear	1	50	500	PWM	±3% (Ta=25°C)	−40 to +125	HRP7
New BD83732HFP-M	4.5 to 42.0	DRL/Turn/Rear	1	50	500	PWM/DC	±3% (Ta=25°C)	−40 to +125	HRP7
New BD83733HFP-M	4.5 to 42.0	DRL/Turn/Rear	1	50	500	PWM/DC	±3% (Ta=25°C)	−40 to +125	HRP7

CR控制方式计时器IC（AEC-Q100）

Part No.	Power Supply (V)	Number of Channel (ch)	Maximum Input Voltage (V)	CR Timer Frequency (Hz)	Frequency Setting	Application	Operating Temperature Range (°C)	Package
BD9555FVM-C	4.5 to 42.0	1	50	1 to 10,000	External Parts	LED drive circuit, Injector drive circuit etc.	−40 to +125	MSOP8

电机驱动器

三相无刷电机驱动器

三相无刷电机预驱动器（AEC-Q100）

Part No.	Max. Voltage (V)	Supply Voltage (V)	Operating Temperature (℃)	Circuit Current (mA)	Input Threshold Voltage		External FET Drive Voltage		PWN Frequency (kHz)	Package
					H level (V)	L Level (V)	Upper (V)	Lower (V)		
BD16805FV-M	60	8 to 18	−40 to +110	15.2	3.0	1.0	2×Vcc−0.5	11.5	25	SSOP-B40

H桥电机驱动器

H桥驱动器 60V耐压（AEC-Q100）

Part No.	Voltage Ratings (V)	Supply Voltage (V)	Output Current (A)	Number of Channel	Output ON Resistance (upper+lower)（Ω/Typ.）	Output Modes	Operating Temperature Range (℃)	Package
BD16922EFV-M	60	8.0 to 36.0	1	2	2.25	Forward/Reverse/Standby/Brake	−40 to +110	HTSSOP-B24
BD16936EFV-M	60	8.0 to 36.0	1	3	2.1	Forward/Reverse/Standby/Brake	−40 to +110	HTSSOP-B28

ODD用驱动器

4ch 系统电机驱动器（AEC-Q100）

Part No.	Power Supply (V)	I/F	Focus Tilt	Tracking	Sled	Loading	Spindle	Short Circuit Protection for loading	Protect for Pickup	Regulator	Reset	Package
BD8266EFV-M	4.5 to 10.0	Analog &PWM	1ch	1ch	DC Select input		DC	—	Self off	—	—	HTSSOP-B24

6ch ～ 9ch 系统电机驱动器（AEC-Q100）

Part No.	Power Supply (V)	I/F	Focus Tilt	Tracking	Sled	Loading	Spindle	LVDS for SA	Short Circuit Protection for loading	Protect for Pickup	Package
BD8255MUV-M	4.5 to 5.5	SPI	1ch	1ch	2ch STTEPING	DC	3-Phase Brushless	—	✓	—	VQFN48SV7070
BD8256EFV-M	4.5 to 10.5	SPI	2ch	1ch	2ch STTEPING	DC	3-Phase Brushless	2ch	✓	Self off	HTSSOP-B54

IPD(IPS)

高边/低边开关

	IPD(IPS) Lineup Ron [Low] → [High]	Application
SINGLE	High Side: ☆90mΩ, 500mΩ Low Side: ☆28mΩ, ☆45mΩ, 85mΩ, 150mΩ, ☆300mΩ, 350mΩ	Relay, Solenoid, Interior lamp, Water heater
DUAL	High Side: Low Side: 110mΩ, 150mΩ, ☆300mΩ	Relay, Solenoid, Interior lamp
Over QUAD	High Side: Low Side: 700mΩ(8ch)	Relay, Solenoid, Stepping motor, LED etc.

High Side　Low Side　☆ Under Development

高边/低边开关（AEC-Q100）

Part No.	Power Supply (V)	VDS (Max.) [V]	Hi/Lo	CH (ch)	Iocp (min) [A]	ON Resistance [mΩ/Typ.]	Package
☆BV1LB028FPJ-C	3.0 to 5.5	42.0	Lo	1	30.0	28	TO252-J3
☆BV1LB045FPJ-C	3.0 to 5.5	42.0	Lo	1	18.0	45	TO252-J3
New BV1LB085FJ-C	3.0 to 5.5	42.0	Lo	1	13.0	85	SOP-J8
New BV1LB150FJ-C	3.0 to 5.5	42.0	Lo	1	6.5	150	SOP-J8
☆BV1LB300FJ-C	3.0 to 5.5	42.0	Lo	1	2.0	300	SOP-J8
BD1LB500EFJ/FVM-C	3.5 to 5.5	42.0	Lo	1	0.8	350	HTSOP-J8/MSOP8
New BM2LB110FJ-C	3.0 to 5.5	42.0	Lo	2	2.5	120	SOP-J8
New BM2LB150FJ-C	3.0 to 5.5	42.0	Lo	2	6.5	150	SOP-J8
☆BM2LB300FJ-C	3.0 to 5.5	42.0	Lo	2	2.0	300	SOP-J8
New BD8LA700EFV-C	3.0 to 5.5 (Digital) 4.0 to 5.5 (Analog)	45.0	Lo	8	0.5	700	HTSSOP-B24
BD1HC500EFJ/FVM/HFN-C	4.0 to 18.0	44.5	Hi	1	0.8	500	HTSOP-J8/MSOP-8/HSON-8
BD1HD500EFJ/FVM/HFN-C	4.0 to 18.0	44.5	Hi	1	0.8	500	HTSOP-J8/MSOP-8/HSON-8
☆BV1HD090FJ-C	4.5 to 18.0	42.0	Hi	1	2.5	90	SOP-J8

☆ : Under Development

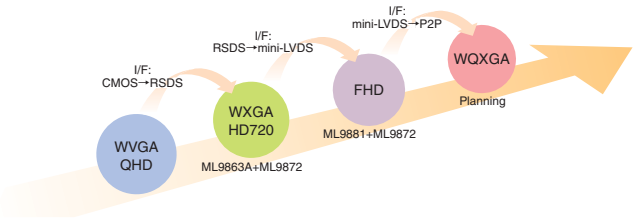
电源管理开关

1ch小型高边开关IC（AEC-Q100）											
Part No.	Power Supply (V)	ON Resistance (mΩ)	Control Input Logic	Output Current (A)	Over Current Detection (A) Min./Typ./Max.	Output Turn on Time (ms)	OCP	Thermal Shut Down	Flag Output Delay/ at Over Current (ms)	Discharge Resistance (Ω)	Package
BD2262G-M	2.7 to 5.5	120	H Active	0.2	0.2/0.3/0.4	1.0	Recovery	Recovery	15	60	SSOP5
BD2264G-M	2.7 to 5.5	120	H Active	0.5	0.63/0.765/0.9	1.0	Recovery	Recovery	15	60	SSOP5
BD2265G-M	2.7 to 5.5	120	L Active	0.5	0.63/0.765/0.9	1.0	Recovery	Recovery	15	60	SSOP5
BD2266G-M	2.7 to 5.5	120	H Active	0.75	0.82/0.97/1.12	1.0	Recovery	Recovery	15	60	SSOP5
BD2267G-M	2.7 to 5.5	120	L Active	0.75	0.82/0.97/1.12	1.0	Recovery	Recovery	15	60	SSOP5
BD2268G-M	2.7 to 5.5	110	H Active	1.0	1.15/1.275/1.4	1.0	Recovery	Recovery	15	60	SSOP5
BD2269G-M	2.7 to 5.5	110	L Active	1.0	1.15/1.275/1.4	1.0	Recovery	Recovery	15	60	SSOP5
BD2244G-M*	2.8 to 5.5	100	H Active	1.5	0.2 to 1.7 (adjustable)	0.6	Recovery	Recovery	7	60	SSOP6
BD2245G-M*	2.8 to 5.5	100	L Active	1.5	0.2 to 1.7 (adjustable)	0.6	Recovery	Recovery	7	60	SSOP6
New BD82004FVJ-M	2.7 to 5.5	70	H Active	0.9	1.0/1.5/2.0	0.8	Recovery	Recovery	15	—	TSSOP-B8J
New BD82005FVJ-M	2.7 to 5.5	70	L Active	0.9	1.0/1.5/2.0	0.8	Recovery	Recovery	15	—	TSSOP-B8J
New BD82006FVJ-M	2.7 to 5.5	70	H Active	1.1	1.5/2.4/3.0	0.8	Recovery	Recovery	15	—	TSSOP-B8J
New BD82007FVJ-M	2.7 to 5.5	70	L Active	1.1	1.5/2.4/3.0	0.8	Recovery	Recovery	15	—	TSSOP-B8J
2ch高边开关IC（AEC-Q100）											
New BD2068FJ-M	2.7 to 5.5	80	H Active	1	1.5/2.4/3.0	0.8	Recovery	Recovery	15	—	SOP-J8
New BD2069FJ-M	2.7 to 5.5	80	L Active	1	1.5/2.4/3.0	0.8	Recovery	Recovery	15	—	SOP-J8

*UL approved File No. E243261

显示用驱动器

TFT液晶显示用驱动器



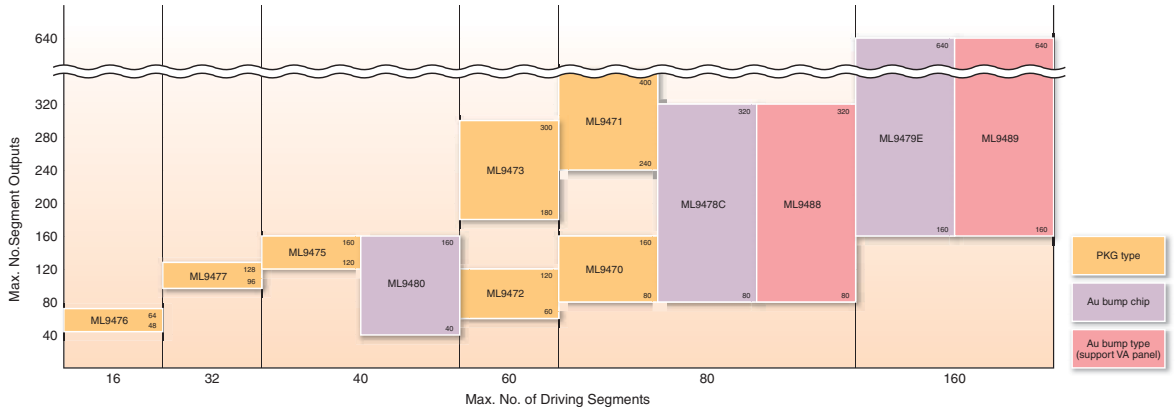
Panel resolution (Color TFT panel)		Number of chips		
		Source		Gate
		ML9863A (960ch)	ML9881 (1440ch)	ML9872 (540ch)
WVGA	800RGB×480	3	2	1
QHD	960RGB×540	3	2	1
WXGA	1280RGB×800	4	3	2
—	1280RGB×480	4	3	1
—	1440RGB×540	5	3	1
FHD	1920RGB×1080	6	4	2

中小型LCD驱动器

(LAPIS Semiconductor products)

TFT-LCD驱动器							
Part No.	Type	Logic Supply Voltage (V)	LCD Voltage (V)	Number of Driver Outputs	I/F	Operating Temperature (°C)	Package
ML9860B	Source electrode	2.1 to 3.6	10.0 to 14.6	480	RSDS	−40 to +95	Au bump chip
ML9863A	Source electrode	2.4 to 3.6	8.0 to 14.6	960/804/792/768	CMOS/RSDS	−40 to +95	Au bump chip
ML9881	Source electrode	2.7 to 3.6	8.0 to 14.6	1440/1284/1278/1260/1200/1080/1026/1020	RSDS/mini-LVDS	−40 to +95	Au bump chip
ML9872	Grid electrode	2.7 to 3.6	to 40	540/480/400/384/360/300/240	CMOS	−40 to +95	Au bump chip

TN/STN LCD液晶显示用驱动器



图形LCD用 控制器驱动器

(LAPIS Semiconductor products)

LCD控制器驱动器							
Part No.	Max. No.Segment Outputs	Largest Drive Display Size	Logic Supply Voltage (V)	Driver Supply Voltage (V)	Operating Temperature (°C)	Feature	Package
ML9058E	132	132×65 dot	3.7 to 5.5	6 to 18	−40 to +85	Built-in RAM/Built-in Step-up	Au bump chip
ML9059E	132	132×49 dot	3.7 to 5.5	6 to 18	−40 to +85	Built-in RAM/Built-in Step-up	Au bump chip
ML9445	180	180×65 dot	2.7 to 5.5	6 to 18.5	−40 to +105	Built-in RAM/Built-in Step-up	Au bump chip
ML9092-01	56	56×10 dot	4.5 to 5.5	4.5 to 16.5	−40 to +85	Built-in RAM/Built-in Step-up/ PWM	TQFP100
ML9092-02	60	60×10 dot	4.5 to 5.5	4.5 to 16.5	−40 to +85	Built-in RAM/Built-in Step-up	TQFP100
ML9092-03						Built-in RAM	
ML9092-04						Built-in RAM/PWM	

TN/STN LCD液晶显示用驱动器

低Duty LCD用控制器驱动器

（LAPIS Semiconductor products）

LCD控制器驱动器（封装品）

Part No.	Max. No.Segment Outputs	Max. No. of Driving Segments					Internal Oscillation Frame Frequency (Hz)	Logic Supply Voltage (V)	Driver Supply Voltage (V)	Operating Temperature (°C)	Feature	Package
		static	1/2	1/3	1/4	1/5						
ML9470-12	80	80	160	—	—	—	—	3.0 to 5.5 (single)		−40 to +105	Supports external clock input	QFP100
ML9471	80	—	—	240	320	400	—	3.0 to 5.5 (single)		−40 to +105	Supports external clock input	TQFP100
ML9472	60	60	120	—	—	—	—	3.0 to 5.5 (single)		−40 to +105	Supports external clock input	P-TQFP80-1212-0.50
ML9473	60	—	—	180	240	300	—	3.0 to 5.5 (single)		−40 to +105	Supports external clock input	P-TQFP80-1212-0.50
ML9475	40	—	—	120	160	—	—	3V±10%/ 5V±10%	3.5 to 5.5	−40 to +105	Supports external clock input/ Bias generator built in/ EMS countermeasure built in	QFP56
ML9476	16	—	—	48	64	—	—	3V±10%/ 5V±10%	3.5 to 5.5	−40 to +105	Supports external clock input/ Bias generator built in/ EMS countermeasure built in	TQFP48
ML9477	32	—	—	96	128	—	—	3V±10%/ 5V±10%	3.5 to 5.5	−40 to +105	Supports external clock input/ Bias generator built in/ EMS countermeasure built in	TQFP48
ML9484	50	50	100	150	200	—			4.5 to 5.5	−40 to +105	Supports external clock input / Bias generator built in	TQFP64

LCD控制器驱动器（金凸点品）

Part No.	Max. No.Segment Outputs	Max. No. of Driving Segments					Internal Oscillation Frame Frequency (Hz)	Logic Supply Voltage (V)	Driver Supply Voltage (V)	Operating Temperature (°C)	Feature	Package
ML9480	40	40	80	120	160	—	65/75/85/95 130/150/170/190 command switching	2.7 to 5.5	4.5 to 5.5	−40 to +105	Supports external clock input/ Bias generator built in/ EMS countermeasure built in/ No external parts	Au bump chip
ML9478C	80	80	160	240	320	—	65/75/85/95 command switching	2.7 to 5.5	4.5 to 5.5	−40 to +105	Supports external clock input/ Bias generator built in/ EMS countermeasure built in/ No external parts	Au bump chip
ML9479E	160	160	320	480	640	—	65/75/85/95 command switching	2.7 to 5.5	4.5 to 5.5	−40 to +105	Supports external clock input/ Bias generator built in/ EMS countermeasure built in/ No external parts	Au bump chip
ML9488	80	80	160	240	320	—	130/150/170/190 command switching	2.7 to 5.5	4.5 to 5.5	−40 to +105	Supports external clock input / Bias generator built in	Au bump chip
ML9489	160	160	320	480	640	—	130/150/170/190 command switching	2.7 to 5.5	4.5 to 5.5	−40 to +105	Supports external clock input / Bias generator built in	Au bump chip

LCD段码驱动器

低Duty LCD段码驱动器

Part No.	Display (dots)	Outputs		Operating Voltage (V)		Operating Temperature (°C)	Duty	Bias	Interface	EVR	GPO	Independent blink	LED Dr	PWM Gen.	Keyscan	Package
		SEG	COM	I/F Power Supply (VDD)	LCD Power Supply (VLCD)											
New BU9797FUV-M	144	36	4	2.5 to 5.5		−40 to +85	1/4	1/2,1/3	2wire serial	—	—	—	—	—	—	TSSOP-C48V
BU97510CKV-M	216	54	4	2.7 to 6.0		−40 to +85	1/4,1/3	1/2,1/3	3wire serial	—	6port (6ch PWM)	—	—	6ch 6bit	—	VQFP64
BU97520AKV-M	276	69	4	2.7 to 6.0		−40 to +85	1/4,1/3	1/2,1/3	4wire serial	—	6port (6ch PWM)	—	—	6ch 8bit	5×6 Max. 30Key	VQFP80
BU97530KVT-M	445	89	5	2.7 to 6.0		−40 to +85	1/5,1/4,1/3 Static	1/2,1/3 Static	4wire serial	✓	9port (9ch PWM)	—	—	9ch 8bit	5×6 Max. 30Key	TQFP100V
New BU97540KV-M	335	67	5	2.7 to 6.0		−40 to +85	1/5,1/4,1/3 Static	1/2,1/3,1/4 Static	4wire serial	✓	9port (9ch PWM)	—	—	9ch 9bit	5×6 Max. 30Key	VQFP80
New BU97550KV-M	528	66	8	2.7 to 6.0		−40 to +85	1/8,1/7,1/5 1/4,1/3,Static	1/2,1/3,1/4 Static	4wire serial	✓	9port (9ch PWM)	—	—	9ch 9bit	5×6 Max. 30Key	VQFP80
New BU91600FV-M	116	29	4	2.7 to 6.0		−40 to +105	1/4,1/3,1/2 Static	1/2,1/3 Static	4wire serial	✓	16port (16ch PWM)	—	—	6ch 9bit	4×5 Max. 20Key	SSOP-B40
New BU91600FUV-M	148	37	4	2.7 to 6.0		−40 to +105	1/4,1/3,1/2 Static	1/2,1/3 Static	4wire serial	✓	16port (16ch PWM)	—	—	6ch 9bit	4×5 Max. 20Key	TSSOP-C48V
New BU91501KV-M	204	51	4	2.7 to 6.0	4.5 to 6.0	−40 to +105	1/4,1/3	1/2,1/3	4wire serial	—	4port	—	—	—	5×6 Max. 30Key	VQFP64
New BU91510KV-M	216	54	4	2.7 to 6.0		−40 to +105	1/4,1/3	1/2,1/3	3wire serial	—	6port (6ch PWM)	—	—	6ch 6bit	—	VQFP64
New BU91530KVT-M	445	89	5	2.7 to 6.0		−40 to +105	1/5,1/4,1/3 Static	1/2,1/3 Static	4wire serial	✓	9port (9ch PWM)	—	—	9ch 8bit	5×6 Max. 30Key	TQFP100V

车载时钟驱动器

（LAPIS Semiconductor products）

车载时钟驱动器

Part No.	Display Duty	VFD Driving Voltage (V)	Logic Supply Voltage (V)	Operating Temperature (°C)	Supply Current (Max.)	No. of Digit	Package
ML9298	1/2	4.0 to 18	No need	−40 to +85	0.6mA	4digits×1line and col.	SSOP32
ML9098B	Static, 1/2	3.0 to 5.5	3.0 to 5.5	−40 to +105	0.6mA	4digits×1line and col., AM, PM	TQFP48

触摸屏控制器

电阻式（AEC-Q100）

Part No.	Supply Voltage (V)	MCU	Resolution	Touch detection	Stand-by current (μA)	Active current (mA)	Host I/F	Operating Temperature (°C)	Package
BU21024FV-M	2.7 to 3.6	8bit	1024×1024	2 point/Single	60	4.0	I²C/SPI	−40 to +85	SSOP-B28

车载通信LSI

收发器

LIN收发器（AEC-Q100）

Part No.	Supply Voltage (V)	Absolute Maximum Input (V)	Baud Rates (kbps)	Type	Low Slope Mode	Dominant Time-out	Sleep Mode	Package
BD41020FJ-C	5.0 to 27.0	−27.0 to +40.0	20	LIN 2.1	✓	✓	✓	SOPJ-8
New BD41030FJ-C	5.0 to 27.0	−27.0 to +40.0	20	LIN 2.2A	—	✓	✓	SOPJ-8

LVDS接口IC

LVDS系列

Part No.	Type	Parallel Data	Serial Lane	Clock Frequency (MHz)	Supply Voltage (V)	Operating Temperature (℃)	Package
BU16001AKVT	Transmitter	35bit	Data : 5ch CLK : 1ch	8 to 90	3.0 to 3.6	−40 to ±85	TQFP64V 10mm□
BU16002KVT	Receiver						

Clockless-Link

BU17101AKV	Transmitter	24bit	1lane	30 to 50	3.0 to 3.6	−40 to +85	VQFP48 7mm□
BU17102AKV	Receiver						

汽车门禁

天线驱动器

Part No.	Power Supply (V)		Channel (ch)		Output current (A)	Operating Temperature (℃)	Package
	Vcc	VS1,VS2	Full bridge	Half bridge			
BD6933FM-M	4.5 to 5.5	4.5 to 8.0	3	2	1.5	−40 to +85	HSOP-M28

车载通信用LSI

FM数据广播接收用LSI

（LAPIS Semiconductor products）

FM数据接收调谐器

Part No.	Feature	Supply Voltage (V)	Supply Current (Max.)	Operating Temperature (℃)	Package
☆ML7174	FM VICS®/DARC® tuner, FM multiplexing demodulate LSI for VICS®（DARC®）, Built-in BPF, frame memory, and VICS® descrambler, Frames A,B,C,SPI slave	3.0 to 3.6	TBD	−40 to +85	WQFN64
☆ML7183	FM VICS®/DARC® tuner & Filter LSI,BPF,I²C slave	3.0 to 3.6	TBD	−40 to +85	WQFN64

支持VICS® FM多路解调

ML7154	VICS®（DARC®）compliant FM multiplexing demodulate LSI for VICS®（DARC®）, Built-in BPF, frame memory, and VICS® descrambler, Frames A,B,C,SPI slave	3.0 to 3.6	28mA	−40 to +85	WQFN64
MSM9565	FM multiplexing demodulate LSI for VICS®（DARC®）, BPF&frame memory built-in VICS® descrambler, Frames A,B,C,8bit bus interface	3.0 to 3.6	28mA	−40 to +85	QFP44
ML9574	FM multiplexing demodulate LSI for VICS®（DARC®）, BPF&frame memory built-in VICS® descrambler, Frames A,B,C,16bit bus interface	3.0 to 3.6	35mA	−40 to +85	TQFP64

支持DARC® FM多路解调

MSM9563	FM multiplexing demodulate LSI for DARC®, BPF&frame memory built-in, Frames A,B,C,8bit bus interface	3.0 to 3.6	28mA	−40 to +85	QFP44

VICS® is a registered trademark of Vehicle Information and Communication System Center. DARC ® is a registered trademark of NHK System, Inc.

☆ : Under Development

地面数字节目接收用LSI

日本制式（ISDB-T）

（LAPIS Semiconductor products）

1-Seg地面数字广播用 RF调谐器 + OFDM解调

Part No.	Transmission Standard	Feature	Supply Voltage (V)	Power Consumption	Operating Temperature (℃)	Package
ML7147	ISDB-T	Compliant to One-Seg broadcasting of ISDB-T（ARIB STD-B31）digital terrestrial television broadcasting. RF tuner, OFDM demodulate, error correction function. Serial. parallel TS output.	2.7 to 3.0 1.5 to 3.6 1.1 to 1.3	70mW (at 1seg reception, include RF)	−40 to +90	WQFN80

地面数字广播用 4根分集天线 / 全段OFDM解调

ML7138	ISDB-T	Compliant to Full-Seg and One-Seg broadcasting of ISDB-T（ARIB STD-B31）digital terrestrial television broadcasting. 4 diversity x 1CH or 2 diversity x 2CH reception. OFDM demodulate, error correction function. Serial, parallel TS output.	3.0 to 3.6 2.7 to 3.6 1.1 to 1.3	234mW (4 diversity full segment reception)	−40 to +85	TFBGA144

中国制式（DTMB）

（LAPIS Semiconductor products）

中国地面数字广播用 解调

Part No.	Transmission Standard	Feature	Supply Voltage (V)	Power Consumption	Operating Temperature (℃)	Package
ML7109S	GB20600-2006	China' s national digital terrestrial broadcasting standard GB20600-2006（DTMB）compliant demodulation. Built-in SDRAM for de-interleave. MPEG-2 serial/parallel TS output.	3.0 to 3.6 1.1 to 1.3	270mW (at reception)	−20 to +85	WQFN64

监测 IC

多输入开关监测 LSI

多输入开关监测 LSI（AEC-Q100）

Part No.	Power Supply (V)	Switch Input	Switch Input Voltage Range (V)	Wetting Current (mA)	Analog Output	Control I/F	Max. Operating Frequency (kHz)	Operating Temperature (℃)	Package
BD3350MUV-M	8.0 to 26（VPWR） 3.1 to 5.25（VDD）	22	−14 to +40	2/7/15 (Pull up/Pull down)	✓	SPI	6	−40 to +125	VQFN48MCV070
New BD3370MUV-M	8.0 to 26（VPUA/VPUB） 3.1 to 5.25（VDD）	22	−14 to +40	1/3/5/10/15 (Pull up/Pull down)	—	SPI	4.4	−40 to +125	VQFN48MCV070

音频 & 视频

语音合成LSI

（LAPIS Semiconductor products）

支持105 C 4ch同时播放 内置Mask ROM + 外置串行存储器

Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (℃)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time (sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22594	4.5 to 5.5	4.096MHz	−40 to +105	Mask 6M*4 External maximum 128M	1024*5 (Built-in 512, External 512)	Built-in 303sec*1 External 109min*3	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Speaker terminal short circuit detection function	SSOP30

支持105 C 4ch同时播放 内置Mask ROM

Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (℃)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time (sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22572	2.7 to 5.5	4.096MHz	−40 to +105	Mask 2M	1024	98 *1	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Fail safe	SSOP30

支持105 C 4ch同时播放 内置Flash ROM/Mask ROM

Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (℃)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time (sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22573/ ML22Q573	2.7 to 5.5	4.096MHz	−40 to +105	Mask/Flash 4M	1024	201 *1	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Fail safe	SSOP30

支持105 C 4ch同时播放 内置Flash ROM

Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (℃)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time (sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22Q553	4.5 to 5.5	4.096MHz	−40 to +105	Flash 4M	1024	201 *1	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Speaker terminal short circuit detection function	SSOP30

支持85 C 内置Flash ROM/Mask ROM

Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (℃)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time (sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22331/ ML22Q331	2.3 to 5.5	4.096MHz	−40 to +85	Mask/Flash 896K	30	43 *1	Clock synchronization Serial	1.0/ AB-class	1ch	16bit	Disconnection detection/ Temperature protection circuit	SSOP30
ML22321/ ML22Q321	2.3 to 5.5	4.096MHz	−40 to +85	Mask/Flash 896K	62	43 *1	Clock synchronization Serial	1.0/ AB-class	1ch	16bit	Disconnection detection/ Temperature protection circuit/ Analog volume control	SSOP30
ML22341/ ML22Q341	2.3 to 5.5	4.096MHz	−40 to +85	Mask/Flash 896K	30	43 *1	Stand alone	1.0/ AB-class	1ch	16bit	Disconnection detection/ Temperature protection circuit	SSOP30

支持85 C 内置Flash ROM

Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (℃)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time (sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22Q374	2.0 to 5.5	4.096MHz (Built-in)	−40 to +85	Flash 692K	30	27 *2	Clock synchronization Serial	1.0/D-class	1ch	—	Disconnection/Short circuit detection Built-in oscillator	SSOP16
ML22Q394	2.0 to 5.5	4.096MHz (Built-in)	−40 to +85	Flash 692K	30	27 *2	I²C	1.0/D-class	1ch	—	Disconnection/Short circuit detection Built-in oscillator	SSOP16

*1 : Maximum playback time when the sampling frequency is 6.4kHz in HQ- ADPCM. *2 : Maximum playback time when the sampling frequency is 6.4kHz in ADPCM2.
*3 : With an external memory module (Max. 128Mbit) . Maximum playback time when the sampling frequency is 6.4kHz in HQ- ADPCM.
*4 : Mask' s built-in ROM is 6Mbit and an external memory module (Max. 128Mbit) can be connected. *5 : Total of mask' s internal 512 phrases and external memory' s 512 phrases.

音频处理器

模拟音频处理器

内置3频带均衡器的声音处理器

Part No.	Supply Voltage (V)	Current Consumption (mA)	INPUT Selector		Input Gain (dB)	Volume (dB)	Fader (Rear)		Parametric EQ	Loudness	LPF/HPF for Sub Woofer	MIXING		Level Meter	Option	Serial Interface	Output Noise Voltage (μVrms)	Distortion (%)	Package
			Single	ISO			(dB)	Outputs					ATT						
BD37033FV	7 to 9.5	31	3/5	2/1	0 to +16	+15 to −79 −∞	+15 to −79 −∞	6	✓	✓	LPF	✓	✓	✓	—	I²C	5.5	0.002	SSOP-B28
BD37034FV	7 to 9.5 VCCL to 13	36	3/5	2/1	0 to +16	+15 to −79 −∞	+15 to −79 −∞	6	✓	✓	LPF + HPF	✓	✓	✓	High Voltage output	I²C	6	0.002	SSOP-B28

内置高级开关的通用电子音量控制器

Part No.	Supply Voltage (V)	Current Consumption (mA)	Input Selector		Input Gain (dB)	Fader Volume (dB)	Number of Outputs	Mixing	Post Filter	Option	Serial Interface	Output Noise Voltage (μVrms)	Distortion (%)	Package
			Single	Differential										
BD37067FV	7.0 to 9.5	37	2/3/4/5	4/3/2/1	+23 to −15 (1dB/Step)	+23 to −79, −∞ (1dB/Step)	6	1ch	✓	—	I²C-bus	8	0.003	SSOP-B40
BD37068FV	7.0 to 9.5 VCCL to 17.8	30 7	2/3/4/5	4/3/2/1	+23 to −15 (1dB/Step)	+23 to −79, −∞ (1dB/Step)	6	1ch	✓	High-Voltage Output	I²C-bus	23 (High-Voltage Mode)	0.003	SSOP-B40

5.1ch汽车影院用6ch电子音量控制器

Part No.	Supply Voltage (V)	Current Consumption (mA)	Input Selector		Input Gain (dB)	5.1ch Volume (dB)	Mono Volume (dB)	Output Gain (dB)	Car NAVI Cell Phone Mixing	Output for Spectrum Analysis	Serial Interface	Output Noise Voltage (μVrms)	Distortion (%)	Package
			Single Input	Monaural Differential Amplifier Input										
BD3433K	±7.0 to ±9.5	12	5.1ch ×2	1	0,6,12 (Each F,R)	+23 to −79,−∞ (1dB/Step)	+15 to −63,−∞ (1dB/Step)	0,+2.5 (A) 0,−4.5 (B)	✓	✓	3 Wire	3	0.001	QFP44

Speech processor with built-in 3-band equalizer: EXT: Set up external components

音频放大器

扬声器放大器

便携式放大器 1.1W to 1.5W单声道扬声器放大器

Part No.	Supply Voltage (V)	Power Dissipation (mW)	Quiescent Current (mA)	Standby Current (μA)	Voltage Gain (dB)	Output Power (RL=8Ω, THD=10%)		Distortion (%)	Output Noise Voltage (dBV)	Package
						VCC=3.6V	VCC=5.0V			
BH7824FVM	2.4 to 5.5	470	3.5	0	0 to 20	0.60W	1.1W	0.07	−94	MSOP8

视频放大器

隔离放大器

Part No.	Supply Voltage (V)	Circuits	Circuit Current (mA)	Input Type	Voltage Gain (dB)	CMRR (dB)	Common-mode Input Voltage Range (V) VCC=5V	Max. Output Level (VPP)	Freq.chara (dB)	Input Register (KΩ)	Package
BH7673G	4.5 to 5.5	1	4.8	Bias	0.0	60	5.2	3.8	0.0 (f=10MHz)	150	SSOP5

图像校正

面板用图像校正IC

Part No.	Power Supply Voltage (V)			Image Data Size	Control Interface	Input/Output Digital Interface	Image Adjustment	PWM Output	LVDS Transmitter	Package
	V_{DD} Core	V_{DD} I/O	V_{DD} LVDS							
BU1573KV	1.40 to 1.60	2.7 to 3.6	—	Supports up to WVGA+（864×480）	I²C BUS	18bitRGB Interface BUS Interface	—	✓	—	VQFP64
BU1523KV	1.65 to 1.95	3.0 to 3.6	3.0 to 3.6	Supports up to WVGA+（864×480）	I²C BUS	24bitRGB Interface 8bit YUV＝4 : 2 : 2 ITU-R BT.656	✓	—	✓	VQFP100

内置图像校正的视频编码器

Part No.	Power Supply Voltage (V)			Image Data Size	Control Interface	Input/Output Digital Interface	Fog Reduction	Video Encoder	Package
	V_{DD} Core	V_{DD} I/O	AV_{DD}						
BU6521KV	1.40 to 1.60	2.7 to 3.6	2.7 to 3.6	ITU-R BT.656	I²C BUS Serial EEPROM interface	8bit YUV＝4 : 2 : 2 ITU-R BT.656	✓	✓	VQFP48C

图像LSI

视频解码器系列

（LAPIS Semiconductor products）

CVBS/S-video

Part No.	Supply Voltage (V)	Input (Analog)		Output (LVTTL)	Pixel Frequency	Sampling Frequency	Crystal Oscillator Supported	Feature	Operating Temperature (℃)	Package
		Terminal	Type							
ML86101A	3.3/1.5	CVBS×4 or CVBS×2 + S-video×1 or S-video×2	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8bit	13.5MHz, 12.272727MHz, 14.75MHz, 14.318182MHz	27MHz, 24.545454MHz, 29.5MHz, 28.6363MHz	✓	Simple, small	−40 to +85	TQFP48
ML86V7668A	3.3/2.5	CVBS×4 or CVBS×1 + S-video×3	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8/16bit RGB 18bit	13.5MHz, 12.272727MHz	27MHz, 24.545454MHz	—	CVBS4 input S-video3 input	−40 to +85	TQFP100

CVBS/S-video/Component/RGB

Part No.	Supply Voltage (V)	Input (Analog)		Output (LVTTL)	Pixel Frequency	Sampling Frequency	Crystal Oscillator Supported	Feature	Operating Temperature (℃)	Package
ML86V7675	3.3/1.5	CVBS×4 + (Comp or S-video)×1 +Comp×1	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8bit	7.99300MHz to 33.333MHz	7.99300MHz to 33.333MHz	✓	WVGA, EGA Analog RGB Supported	−40 to +85	TQFP64

视频编码器系列

（LAPIS Semiconductor products）

CVBS

Part No.	Supply Voltage (V)	Input (LVTTL)	Input (Analog)		Pixel Frequency	Sampling Frequency	Crystal Oscillator Supported	Feature	Operating Temperature (℃)	Package
			Terminal	Type						
ML86V76580	3.3/1.8	ITU-R.BT.656 YCbCr 8bit	CVBS	NTSC PAL	13.5MHz, 12.272727MHz, 14.75MHz, 14.318182MHz	54MHz, 49.090908MHz, 59MHz, 57.272728MHz	—	No need of LPE	−40 to +85	TQFP48 WCSP25

CVBS/S-video/Component/RGB

Part No.	Supply Voltage (V)	Input (LVTTL)	Input (Analog)		Pixel Frequency	Sampling Frequency	Crystal Oscillator Supported	Feature	Operating Temperature (℃)	Package
ML86V7655	3.3/2.5	ITU-R. BT.656 YCbCr 8/16/24bit RGB 24bit	CVBS S-video Component	NTSC PAL	13.5MHz, 12.272727MHz, 14.75MHz, 14.318182MHz, 18MHz	27MHz, 24.545454MHz, 29.5MHz, 28.6363MHz, 36MHz	—	I/P, P/I Conversion	−40 to +85	TQFP100

图像LSI

面向中小型TFT液晶显示器的显示屏控制器系列

（LAPIS Semiconductor products）

T-CON，内置视频解码器

Part No.	Supply Voltage (V)	Input (Analog) Terminal	Input (Analog) Type	Input (LVTTL/LVDS)	Output (LVTTL/LVDS)	Resolution	OSD	MCU	Feature	Operating Temperature (°C)	Package
ML86V8201	3.3/1.5	CVBS×2 or S-video×1	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit	ITU-R BT.656 YCbCr 8bit RGB 18/24bit	QVGA to WVGA	Line	—	Rear camera function Image quality adjustment	−40 to +85	TQFP100
ML86203	3.3/1.5	CVBS×1	NTSC PAL	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit	ITU-R BT.656 YCbCr 8bit LVDS 4ch (RGB 18/24bit)	VGA to WXGA	—	—	Rear camera function WXGA panel support Image quality adjustment	−40 to +85	TQFP80
☆ML86206	3.3/1.5	CVBS×2	NTSC PAL	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit LVDS 4ch (RGB 18/24bit)	ITU-R BT.656 YCbCr 8bit RGB 18/24bit LVDS 4ch (RGB 18/24bit)	VGA to WXGA	Text Line	—	LVTTL/LVDS I/F WXGA panel support Image quality adjustment OSD function	−40 to +85	TQFP100
☆ML86286	3.3/1.5	CVBS×2	NTSC PAL	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit LVDS 4ch (RGB 18/24bit)	ITU-R BT.656 YCbCr 8bit RGB 18/24bit LVDS 4ch (RGB 18/24bit)	VGA to WXGA	Text Line	—	LVTTL/LVDS I/F WXGA panel support Picture in Picture Image quality adjustment OSD, ROM-OSD function	−40 to +85	TQFP128
☆ML86207	3.3/1.5	CVBS×2	NTSC PAL	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit + LVDS 4ch (RGB 18/24bit)	ITU-R BT.656 YCbCr 8bit RGB 18/24bit LVDS 4ch (RGB 18/24bit)	VGA to WXGA	Text Line	—	LVTTL/LVDS I/F 2ch digital video input Corresponding WXGA panel Corresponding rear camera Image Adjustment OSD function	−40 to +85	TQFP100
☆ML86287	3.3/1.5	CVBS×2	NTSC PAL	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit + LVDS 4ch (RGB 18/24bit)	ITU-R BT.656 YCbCr 8bit RGB 18/24bit LVDS 4ch (RGB 18/24bit)	VGA to WXGA	Text Line	—	LVTTL/LVDS I/F 2ch digital video input Corresponding WXGA panel Corresponding rear camera Image composition Image Adjustment OSD, ROM-OSD function	−40 to +85	TQFP128
ML86V8202C	3.3/1.8	CVBS×2 + (Comp or S-video) ×1 +Comp×1	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit	ITU-R BT.656 style YCbCr 8/16/24bit RGB 18/24bit	QVGA to WVGA	—	—	Component video support Image quality adjustment	−40 to +85	TQFP100
ML86V8207	3.3/2.5	CVBS×4 or CVBS×3 + (Comp or S-video) ×1 or CVBS×2+S-video×1 + (Comp or S-video) ×1	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8/16bit RGB 18/24bit	RGB 18/24bit	QVGA to WVGA	Text Line	—	OSD function	−40 to +85	LQFP144
New ML86240	3.3/1.5	CVBS×4 or CVBS×2 + (Comp or S-video) ×1 +Comp×1	NTSC PAL SECAM	ITU-R BT.656 YCbCr 8/16/24bit RGB 18/24bit 2ch	ITU-R BT.656 YCbCr 8bit RGB 18/24bit	QVGA to WVGA	Text Line	—	Component video support Digital video input×2 Rear camera function Image quality adjustment OSD function	−40 to +85	BGA144

TCON, 内置画质调整功能

Part No.	Supply Voltage (V)	Input (Analog) Terminal	Input (Analog) Type	Input (LVTTL)	Output (LVTTL)	Resolution	OSD	MCU	Feature	Operating Temperature (°C)	Package
ML86V8101	3.3	—	—	RGB 18bit	RGB 18bit	QVGA to QHD	—	—	Built-in image quality adjustment function	−40 to +85	TQFP64
ML86V8102	3.3	—	—	RGB 18/24bit	RGB 18/24bit	QVGA to QHD	—	—	RGB 24 bits supported image quality adjustment function	−40 to +85	TQFP80

☆ : Under Development

EV/HEV

栅极驱动器

内置绝缘元器件的栅极驱动器

内置绝缘元器件的栅极驱动器（AEC-Q100）

Part No.	Input-side Supply Voltage (V)	Output-side Positive Supply Voltage (V)	Output-side Negative Supply Voltage (V)	Isolation Voltage (Vrms)	I/O Delay Time (ns)	Minimum Input Pulse Width (ns)	Maximum Output Current (A)	Operating Temperature (°C)	Function	Package
BM6101FV-C	4.5 to 5.5	14 to 24	−12 to 0	2,500	350	180	3.0	−40 to +125	Miller Clamp / Fail Output / Built-in under voltage lock out circuit / Thermal protection / Short current protection / DESAT / Soft turn-off function for short current protection	SSOP-B20W
BM6102FV-C	4.5 to 5.5	14 to 20	—	2,500	200	100	3.0	−40 to +125	Miller Clamp / Fail Output / Built-in under voltage lock out circuit / Thermal protection / Short current protection / DESAT / Soft turn-off function for short current protection	SSOP-B20W
BM6104FV-C	4.5 to 5.5	10 to 24	−12 to 0	2,500	150	90	3.0	−40 to +125	Miller Clamp / Fail Output / Built-in under voltage lock out circuit / Short current protection / DESAT / Soft turn-off function for short current protection	SSOP-B20W
BM60014FV-C	4.5 to 5.5	10 to 24	—	2,500	120	70	3.0	−40 to +125	Miller Clamp / Fail Output / Built-in under voltage lock out circuit	SSOP-B20W

内置绝缘元器件的栅极驱动器（内置反激式电源）（AEC-Q100）

Part No.	Input-side Supply Voltage (V)	Output-side Positive Supply Voltage (V)	Output-side Negative Supply Voltage (V)	Isolation Voltage (Vrms)	I/O Delay Time (ns)	Minimum Input Pulse Width (ns)	Maximum Output Current (A)	Operating Temperature (°C)	Function	Package
BM60051FV-C	4.5 to 24 4.5 to 5.5	9 to 24	—	2.500	260	180	5.0	−40 to +125	Miller Clamp / Fail Output / Built-in under voltage lock out circuit / Temperature Monitor / Short current protection / Soft turn-off function for short current protection	SSOP-B28W

高电压监测器

内置绝缘元器件的高电压监测器（AEC-Q100）

Part No.	Supply Voltage 1 (V)	Supply Voltage 2 (V)	Isolation Voltage (Vrms)	Circuit Current 1 (mA)	Circuit Current 2 (mA)	Output Duty Accuracy (%)	Operating Temperature (°C)	Package
BM67290FV-C	8.0 to 24.0	3.0 to 5.5	2,500	4.6	0.2	±3.5	−40 to +125	SSOP-B20W

温度监测器

内置绝缘元器件的温度监测器（AEC-Q100）

Part No.	Supply Voltage 1 (V)	Supply Voltage 2 (V)	Isolation Voltage (Vrms)	Circuit Current 1 (mA)	Circuit Current 2 (mA)	Input Voltage Range (V)	Output Current Accuracy (%)	Output Duty Accuracy (%)	Operating Temperature (°C)	Package
BM66002FV-C	9.0 to 24.0	3.0 to 5.5	2,500	3.75	0.2	1.4 to 4.0	±2.0	±2.0	−40 to +125	SSOP-B20W

隔离器

2.5kVrms 隔离器（AEC-Q100）

Part No.	Supply Voltage (V)	V_{CC}1 Supply Current 1@ DC (mA)	V_{CC}2 Supply Current 2@ DC (mA)	Channel Number (ch)	Max. Propagation Delay (ns)	Isolation Voltage (Vrms)	Operating Temperature Range (°C)	Package
BM67220FV-C	4.5 to 5.5	0.21	0.21	2	45	2.5k	−40 to +125	SSOP-B20W
BM67221FV-C	4.5 to 5.5	0.21	0.21	2	45	2.5k	−40 to +125	SSOP-B20W

标准产品

DRAM

传统的DRAM FP/EDO

（LAPIS Semiconductor products）

车载用

Part No.	Supply Voltage (V)	Density (bit)	Number of Data bits	Configuration (word×bit)	Circuit Function	Access Time (ns)	Refresh Cycle (cycles/ms)	Operating Temperature Ta (°C)	Package
MSM514400DP	5.0±0.5	4M	×4	1M×4	Fast Page Mode	60/70	1024/16	−40 to +85	TSOP（Ⅱ）26/24Cu
MSM514400EP									
MSM514260EP			×16	256K×16		60/70	512/8		TSOP（Ⅱ）44/40
MSM5118160FP		16M		1M×16		60	1024/16		TSOP（Ⅱ）50/44
MSM5118165FP					EDO				
MSM51V4400EP	3.3±0.3	4M	×4	1M×4	Fast Page Mode	70/100	1024/16		TSOP（Ⅱ）26/24Cu
MSM54V16258BP			×16	256K×16	EDO	40/45/50	512/64		TSOP（Ⅱ）44/40
MSM51V4265EP						60/70	512/8		
MSM51V17400FP		16M	×4	4M×4	Fast Page Mode	60	2048/32		TSOP（Ⅱ）26/24Cu
MSM51V18165FP			×16	1M×16	EDO	60	1024/16		

传统的DRAM SDRAM

（LAPIS Semiconductor products）

车载用

Part No.	Data Rate Type	Supply Voltage (V)	Density (bit)	Number of Data Bits	Configuration (bank×word×bit)	Max. Operating Frequency (MHz)	Refresh Cycle (cycles/ms)	Cycle Time (ns)	Features	Operating Temperature Ta (°C)	Package
MSM56V16160FP	SDR	3.3±0.3	16M	×16	2×512K×16	100	4096/64	10	—	−40 to +85	TSOP（Ⅱ）50
MSM56V16160KP						125		8/10	Drivability control		TSOP（Ⅱ）50Cu
New **MSM56V16161NP**						166		6/7/7.5/10			
MD56V62160E-10TAP			64M		4×1M×16	100	4096/64	10	—		TSOP（Ⅱ）54
MD56V62160M-xxTAP						143		7/7.5/10	Drivability control		TSOP（Ⅱ）54Cu
New **MD56V62161M-xxTALQ1L**						143	4096/16	7/7.5/10		−40 to +105	
MD56V72160C-xxTAP			128M		4×2M×16	166	4096/64	6/7/7.5/10		−40 to +85	
New **MD56V72161C-xxTALQ1L**						166	4096/16	6/7/7.5/10		−40 to +105	
MD56V82160A-xxTAP			256M		4×4M×16	166	8192/64	6/7/7.5/10		−40 to +85	
New **MD56V82160A-xxTALQ3L**						166	8192/16	6/7/7.5/10		−40 to +105	

SDR : Single Data Rate Synchronous DRAM

图像存储器

（LAPIS Semiconductor products）

车载用

Part No.	Supply Voltage (V)	Density (bit)	Configuration (word×bit) ×port	Number of Data Bits	Max. Operating Frequency (MHz)	Access Time (ns)	Cycle Time (ns)	Power Consumption (mW)		Operating Temperature Ta (°C)	Package	Notes
								Operating	Standby			
MS81V04160AP	3.3±0.3	4M	(262,214×8)×2	×16	50	18/23	20/25	288	10.8	−40 to +85	QFP100	Asynchronous serial read/write, Write mask function, Output data control, Cascade, Two-port, 2 common WCLK ports
MS81V26000-25TPZP3		26M	1,114,112 ×24	×24	40	12	25	576	18		TQFP100Cu	Asynchronous serial read/write, Write mask function, Output data control, Cascade, The top address can be specified

串行EEPROM
车载用 EEPROM

105℃工作 I²C BUS EEPROM（2-Wire）BR24Axxxxxx-WM系列（AEC-Q100）

Part No.	Package and Suffix			Density (bit)	Bit Formal (word×bit)	Supply Voltage Range (V)	Current Consumption (Max.)		Write Cycle Time (Max.) (ms)	Operating Temperature Range (℃)	Endurance (times)	Data Retention (years)
	SOP8	SOP-J8	MSOP8				Operating (mA)	Standby (μA)				
BR24A01A	F-WM	FJ-WM	—	1K	128×8	2.5 to 5.5	2	2	5	−40 to +105	10^6	40
BR24A02	F-WM	FJ-WM	FVM-WM	2K	256×8	2.5 to 5.5	2	2	5			
BR24A04	F-WM	FJ-WM	—	4K	512×8	2.5 to 5.5	2	2	5			
BR24A08	F-WM	FJ-WM	—	8K	1K×8	2.5 to 5.5	2	2	5			
BR24A16	F-WM	FJ-WM	—	16K	2K×8	2.5 to 5.5	2	2	5			
BR24A32	F-WM	—	—	32K	4K×8	2.5 to 5.5	3	2	5			
BR24A64	F-WM	—	—	64K	8K×8	2.5 to 5.5	3	2	5			

125℃工作 Microwire BUS EEPROM（3-Wire）BR93Hxxxxxx-2C系列（AEC-Q100）

Part No.	Package and Suffix				Density (bit)	Bit Formal (word×bit)	Supply Voltage Range (V)	Current Consumption (Max.)		Write Cycle Time (Max.) (ms)	Operating Temperature Range (℃)	Endurance (times)	Data Retention (years)
	SOP8	SOP-J8	TSSOP-B8	MSOP8				Operating (mA)	Standby (μA)				
BR93H46	RF-2C	RFJ-2C	RFVT-2C	RFVM-2C	1K	64×16	2.5 to 5.5	3	10	4	−40 to +125	10^6	100
BR93H56	RF-2C	RFJ-2C	RFVT-2C	RFVM-2C	2K	128×16	2.5 to 5.5	3	10	4			
BR93H66	RF-2C	RFJ-2C	RFVT-2C	RFVM-2C	4K	256×16	2.5 to 5.5	3	10	4			
BR93H76	RF-2C	RFJ-2C	RFVT-2C	RFVM-2C	8K	512×16	2.5 to 5.5	3	10	4			
BR93H86	RF-2C	RFJ-2C	RFVT-2C	RFVM-2C	16K	1K×16	2.5 to 5.5	3	10	4			

105℃工作 Microwire BUS EEPROM（3-Wire）BR93Hxxxxxx-2C系列（AEC-Q100）

Part No.													
BR93A46	RF-WM	RFJ-WM	RFVT-WM	RFVM-WM	1K	64×16	2.5 to 5.5	3	2	5	−40 to +105	10^6	40
BR93A56	RF-WM	RFJ-WM	RFVT-WM	RFVM-WM	2K	128×16	2.5 to 5.5	3	2	5			
BR93A66	RF-WM	RFJ-WM	RFVT-WM	RFVM-WM	4K	256×16	2.5 to 5.5	3	2	5			
BR93A76	RF-WM	RFJ-WM	RFVT-WM	RFVM-WM	8K	512×16	2.5 to 5.5	3	2	5			
BR93A86	RF-WM	RFJ-WM	RFVT-WM	RFVM-WM	16K	1K×16	2.5 to 5.5	3	2	5			

125℃工作 SPI BUS EEPROM BR25Hxxxxxx-2C系列（AEC-Q100）

Part No.													
BR25H010	F-2C	FJ-2C	FVT-2C	FVM-2C	1K	128×8	2.5 to 5.5	4	10	4	−40 to +125	10^6	100
BR25H020	F-2C	FJ-2C	FVT-2C	FVM-2C	2K	256×8	2.5 to 5.5	4	10	4			
BR25H040	F-2C	FJ-2C	FVT-2C	FVM-2C	4K	512×8	2.5 to 5.5	4	10	4			
BR25H080	F-2C	FJ-2C	FVT-2C	FVM-2C	8K	1K×8	2.5 to 5.5	4	10	4			
BR25H160	F-2C	FJ-2C	FVT-2C	FVM-2C	16K	2K×8	2.5 to 5.5	4	10	4			
BR25H320	F-2C	FJ-2C	FVT-2C	FVM-2C	32K	4K×8	2.5 to 5.5	4	10	4			
BR25H640	F-2C	FJ-2C	FVT-2C	—	64K	8K×8	2.5 to 5.5	5.5	10	4			
BR25H128	F-2C	FJ-2C	—	—	128K	16K×8	2.5 to 5.5	5.5	10	4			

125℃工作 SPI BUS EEPROM BR35Hxxxxxx-WC系列（AEC-Q100）

Part No.													
BR35H160	F-WC	FJ-WC	FVT-WC	FVM-WC	16K	2K×8	2.5 to 5.5	3	10	5	−40 to +125	10^6	40
BR35H320	F-WC	FJ-WC	FVT-WC	FVM-WC	32K	4K×8	2.5 to 5.5	3	10	5			
BR35H640	F-WC	FJ-WC	FVT-WC	—	64K	8K×8	2.5 to 5.5	5.5	10	5			
BR35H128	F-WC	FJ-WC	—	—	128K	16K×8	2.5 to 5.5	5.5	10	5			

105℃工作 SPI BUS EEPROM BR35Hxxxxxx-WC系列（AEC-Q100）

Part No.													
New BR25A256	F-3M	FJ-3M	FVT-3M	—	256K	32K×8	2.5 to 5.5	4	10	5	−40 to +105	10^6	100
New BR25A512	F-3M	FJ-3M	FVT-3M	—	512K	512K×8	2.5 to 5.5	4	10	5			
New BR25A1M	F-3M	FJ-3M	—	—	1M	128K×8	2.5 to 5.5	4	10	5			

FeRAM
铁电存储器

（LAPIS Semiconductor products）

Parallel BUS FeRAM MR48Vxxxx系列

Part No.	Memory Density (bit)	Configuration (word×bit)	Supply Voltage (V)	Operating Speed	Read/Write Endurance	Data Retention	Operating Temperature Ta (℃)	Package
MR48V256C	256K	32K×8	2.7 to 3.6	t_{RC}=150ns	10^{12} Times	10 years	−40 to +85	TSOP（I）28

I²C BUS FeRAM MR44Vxxxx系列

MR44V064A	64K	8K×8	2.5 to 3.6	f_{clk}=3.4MHz	10^{12} Times	10 years	−40 to +85	SOP8
New MR44V064B	64K	8K×8	2.0 to 3.6	f_{clk}=3.4MHz				
☆MR44V100A	1M	128K×8	2.0 to 3.6	f_{clk}=3.4MHz				

SPI BUS FeRAM MR45Vxxxx系列

MR45V032A	32K	4K×8	2.7 to 3.6	f_{clk}=15MHz	10^{12} Times	10 years	−40 to +85	SOP8
New MR45V064B	64K	8K×8	2.0 to 3.6	f_{clk}=40MHz				
MR45V256A	256K	32K×8	3.0 to 3.6	f_{clk}=15MHz				
☆MR45V100A	1M	128K×8	2.0 to 3.6	f_{clk}=34MHz				SOP8/DIP8
MR45V200A	2M	256K×8	2.7 to 3.6	f_{clk}=34MHz				DIP8

☆：Under Development

运算放大器

通用

接地检测 运算放大器（AEC-Q100）

Part No.	CH	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage Range (V)	Output Voltage Range (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (℃)	Package
BA2904YF-C	2	3 to 36	0.5	2.0	20	30	VEE to VCC−1.5	VEE to VCC−1.5	100	80	100	0.2	0.5	−40 to +125	SOP8
BA2904YFV-C															SSOP-B8
BA2904YFVM-C															MSOP8
BA2902YF-C	4	3 to 36	0.7	2.0	20	30	VEE to VCC−1.5	VEE to VCC−1.5	100	80	100	0.2	0.5	−40 to +125	SOP14
BA2902YFV-C															SSOP-B14
BA2904YF-M	2	3 to 36	0.5	2.0	20	30	VEE to VCC−1.5	VEE to VCC−1.5	100	80	100	0.2	0.5	−40 to +125	SOP8
BA2904YFV-M															SSOP-B8
BA2904YFVM-M															MSOP8
BA2902YF-M	4	3 to 36	0.7	2.0	20	30	VEE to VCC−1.5	VEE to VCC−1.5	100	80	100	0.2	0.5	−40 to +125	SOP14
BA2902YFV-M															SSOP-B14

高速

接地检测 运算放大器（AEC-Q100）

Part No.	CH	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage Range (V)	Output Voltage Range (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (℃)	Package
BA3472YF-C	2	3 to 36	4.0	1.0	100	30	VEE to VCC−2.0	VEE+0.3 to VCC−1.0	100	97	97	10	4.0	−40 to +125	SOP8
BA3472YFV-C															SSOP-B8
BA3472YFVM-C															MSOP8
BA3474YFV-C	4	3 to 36	8.0	1.0	100	30	VEE to VCC−2.0	VEE+0.3 to VCC−1.0	100	97	97	10	4.0	−40 to +125	SSOP-B14
BA3472WFV-C	2	3 to 36	4.0	1.0	100	30	VEE to VCC−2.0	VEE+0.3 to VCC−1.0	100	97	97	10	4.0	−40 to +125	SSOP-B8
BA3474WFV-C	4	3 to 36	8.0	1.0	100	30	VEE to VCC−2.0	VEE+0.3 to VCC−1.0	100	97	97	10	4.0	−40 to +125	SSOP-B14

低耗电

输入输出全振幅运算放大器（AEC-Q100）

Part No.	CH	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage Range (V)	Output Voltage Range (V)	Voltage Gain (dB)	CMRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (℃)	Package
New BU724YG-C	1	1.8 to 5.5	70	1.0	0.001	10	Vss to VDD	Vss+0.05 to VDD−0.05	100	70	0.4	1.0	−40 to +125	SSOP5

低噪声

运算放大器（AEC-Q100）

Part No.	CH	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Input Referred Noise Voltage (μVrms)	Input Voltage Range (V)	Output Voltage Range (V)	Voltage Gain (dB)	CMRR (dB)	PSRR (dB)	Slew Rate (V/μs)	Gain Bandwidth Product (MHz)	Operating Temperature (℃)	Package
BA4558YF-M	2	±4 to ±15	3.0	0.5	60	1.8	VEE+1.0 to VCC−1.0	VEE+1.0 to VCC−1.0	100	90	90	1.0	2.0	−40 to +105	SOP8
BA4558YFV-M															SSOP-B8
BA4558YFVM-M															MSOP8
BA4560YF-M	2	±4 to ±15	3.0	0.5	50	1	VEE+1.0 to VCC−1.0	VEE+1.0 to VCC−1.0	100	90	90	4.0	4.0	−40 to +105	SOP8
BA4560YFV-M															SSOP-B8
BA4560YFVM-M															MSOP8
BA4580YF-M	2	±2 to ±16	6.0	0.3	100	0.8	VEE+1.5 to VCC−1.5	VEE+1.5 to VCC−1.5	110	110	110	5.0	10.0	−40 to +105	SOP8
BA4580YFVM-M															MSOP8
BA4584YFV-M	4	±2 to ±16	11.0	0.3	100	0.8	VEE+1.5 to VCC−1.5	VEE+1.5 to VCC−1.5	110	110	110	5.0	10.0	−40 to +105	SSOP-B14

比较器

通用

集电极开路比较器（AEC-Q100）

Part No.	CH	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage Range (V)	Voltage Gain (dB)	Response Time (μs)	Operating Temperature (℃)	Package
BA2903YF-C	2	2 to 36	0.6	2	50	16	VEE to VCC−1.5	100	1.3	−40 to +125	SOP8
BA2903YFV-C											SSOP-B8
BA2903YFVM-C											MSOP8
BA2901YF-C	4	2 to 36	0.8	2	50	16	VEE to VCC−1.5	100	1.3	−40 to +125	SOP14
BA2901YFV-C											SSOP-B14
BA2903YF-M	2	2 to 36	0.6	2	50	16	VEE to VCC−1.5	100	1.3	−40 to +125	SOP8
BA2903YFV-M											SSOP-B8
BA2903YFVM-M											MSOP8
BA2901YF-M	4	2 to 36	0.8	2	50	16	VEE to VCC−1.5	100	1.3	−40 to +125	SOP14
BA2901YFV-M											SSOP-B14

低耗电

漏极开路比较器（AEC-Q100）

Part No.	CH	Supply Voltage (V)	Circuit Current (mA)	Input Offset Voltage (mV)	Input Bias Current (nA)	Output Current (mA)	Input Voltage Range (V)	Voltage Gain (dB)	Response Time (μs)	Operating Temperature (℃)	Package
New BU7233YF-C	2	1.8 to 5.5	10	1.0	0.001	7	Vss to VDD	100	1.8	−40 to +125	SSOP8

电压检测器（复位IC）

标准电压检测器

电压检测器（AEC-Q100）

Part No.	Types	Voltage Detection Precision (%)	Voltage Detection (V)	RESET Action Voltage Range (V)	Detection Step (V)	Output Type	Circuit Current (μA) ON	Circuit Current (μA) OFF	Hysteresis Voltage (V)	"L" Output Current (mA) V_{DD}=1.2V	"L" Output Current (mA) V_{DD}=0.5V	RESET Action Timeout Period (ms)	Delay Circuit Resistance (mΩ)	Package
BD48ExxG-Mseries	0.1V Step 38 type	±1	2.3 to 6.0	0.95 to 10.0	0.1	Open drain	0.60 (Vs=4.8V)	0.85 (Vs=4.8V)	Vs×0.05	1.0	4	—	—	SSOP5
BD49ExxG-Mseries	0.1V Step 38 type	±1	2.3 to 6.0	0.95 to 10.0	0.1	CMOS						—	—	SSOP5
BD52ExxG-Mseries	0.1V Step 38 type	±1	2.3 to 6.0	0.95 to 10.0	0.1	Open drain	0.90 (V_{DET}=4.8V)	0.85 (V_{DET}=4.8V)	V_{DET}×0.05	1.2	5	Variable	9	SSOP5
BD53ExxG-Mseries	0.1V Step 38 type	±1	2.3 to 6.0	0.95 to 10.0	0.1	CMOS						Variable	9	SSOP5
BD45Exx5G-Mseries	0.1V Step 26 type	±1	2.3 to 4.8	0.95 to 10.0	0.1	Open drain	0.80 (V_{DET}=4.8V)	0.85 (V_{DET}=4.8V)	V_{DET}×0.05	1.2	5	50	—	SSOP5
BD45Exx1G-Mseries	0.1V Step 26 type	±1	2.3 to 4.8	0.95 to 10.0	0.1							100	—	SSOP5
BD45Exx2G-Mseries	0.1V Step 26 type	±1	2.3 to 4.8	0.95 to 10.0	0.1							200	—	SSOP5
BD46Exx5G-Mseries	0.1V Step 26 type	±1	2.3 to 4.8	0.95 to 10.0	0.1	CMOS						50	—	SSOP5
BD46Exx1G-Mseries	0.1V Step 26 type	±1	2.3 to 4.8	0.95 to 10.0	0.1							100	—	SSOP5
BD46Exx2G-Mseries	0.1V Step 26 type	±1	2.3 to 4.8	0.95 to 10.0	0.1							200	—	SSOP5

*Detection voltage is applied in the "xx" of part No.. Ex. : In case of 2.3V detection voltage in BD48ExxG-M series, Part No. is BD48E23G-M.

看门狗计时器复位IC

看门狗计时器复位IC

Part No.	Voltage Detection Precision (%)	Voltage Detection (V)	RESET Action Voltage Range (V)	Output Type	Circuit Current (μA) ON	Hysteresis Voltage (V)	"L" Output Current (mA) V_{DD}=1.2V / V_{DS}=0.5V	RESET Action Timeout Period (ms)	Delay Circuit Resistance (mΩ)	WDT active voltage range (V)	INH mode (Active)	Package
BD37A19FVM	±1.5	1.9	1.0 to 10.0	Open drain	5	V_{DET}×0.13	0.7	Variable	10	2.5 to 10.0	H	MSOP8
BD37A41FVM	±1.5	4.1	1.0 to 10.0	Open drain	5	V_{DET}×0.035	0.7	Variable	10	2.5 to 10.0	H	MSOP8
BD87A28FVM	±1.5	2.8	1.0 to 10.0	Open drain	5	V_{DET}×0.045	0.7	Variable	10	2.5 to 10.0	L	MSOP8
BD87A29FVM	±1.5	2.9	1.0 to 10.0	Open drain	5	V_{DET}×0.05	0.7	Variable	10	2.5 to 10.0	L	MSOP8
BD87A34FVM	±1.5	3.4	1.0 to 10.0	Open drain	5	V_{DET}×0.05	0.7	Variable	10	2.5 to 10.0	L	MSOP8
BD87A41FVM	±1.5	4.1	1.0 to 10.0	Open drain	5	V_{DET}×0.035	0.7	Variable	10	2.5 to 10.0	L	MSOP8
BD99A41F	±1.5	4.1	1.0 to 10.0	Open drain	5	V_{DET}×0.035	0.7	Variable	10	2.5 to 10.0	H	SOP8

Example: In case of 2.3 V detection voltage in BD45xx5G series, Part No. is BD45235G.

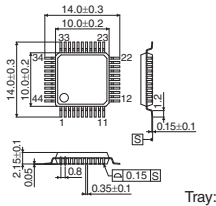
LAPIS Semiconductor产品对应页请参见P.40 ～

QFP封装

（单位: mm）

QFP<引脚间距：0.8mm>

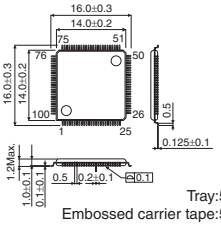
QFP44



Tray:1,000pcs
Embossed carrier tape:1,000pcs

TQFPV<引脚间距：0.5mm>

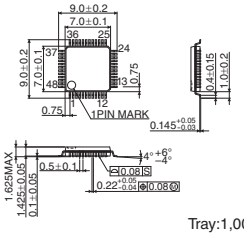
TQFP100V



Tray:500pcs
Embossed carrier tape:500pcs

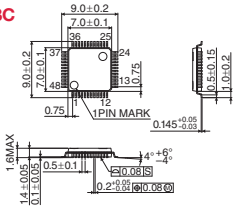
VQFP<引脚间距：0.5mm>

VQFP48



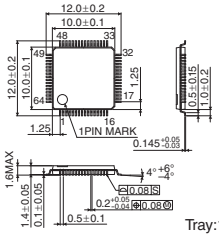
Tray:1,000pcs
Embossed carrier tape:1,500pcs

VQFP48C



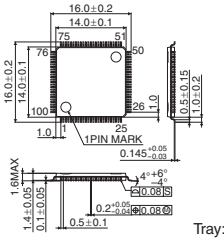
Tray:1,000pcs
Embossed carrier tape:1,500pcs

VQFP64



Tray:1,000pcs
Embossed carrier tape:1,000pcs

VQFP100



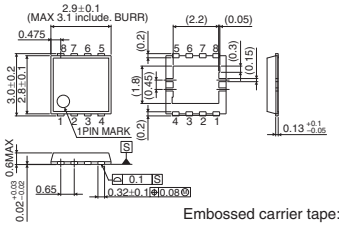
Tray:500pcs
Embossed carrier tape:500pcs

SON / QFN封装

（单位: mm）

HSON-8<引脚间距：0.65mm>

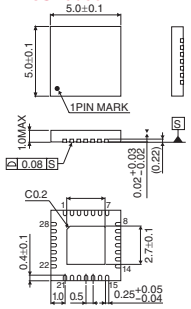
HSON-8



Embossed carrier tape:3,000pcs

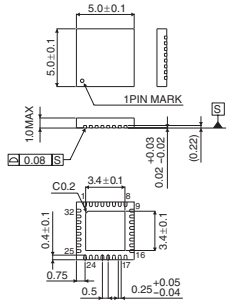
VQFN-SV<引脚间距：0.5mm>

VQFN28SV5050



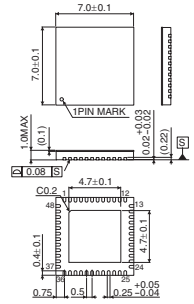
Embossed carrier tape:2,500pcs

VQFN32SV5050



Embossed carrier tape:2,500pcs

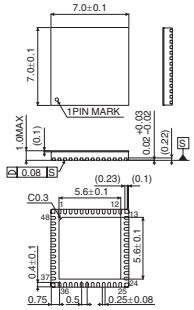
VQFN48SV7070



Embossed carrier tape:1,500pcs

VQFN-MCV<引脚间距：0.5mm>

VQFN48MCV070



Embossed carrier tape:1,500pcs

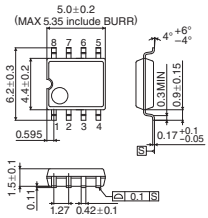
LAPIS Semiconductor产品对应页请参见P.40 ～

SOP封装

（单位: mm）

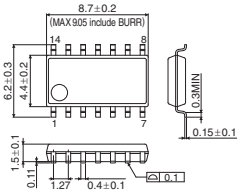
SOP<引脚间距：1.27mm>

SOP8



Embossed carrier tape:2,500pcs

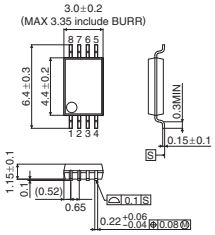
SOP14



Embossed carrier tape:2,500pcs

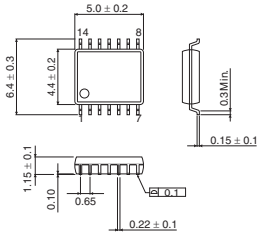
SSOP-B<引脚间距：0.65mm>

SSOP-B8



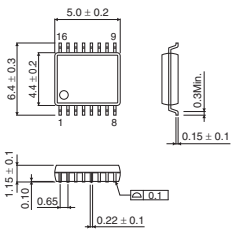
Embossed carrier tape:2,500pcs

SSOP-B14



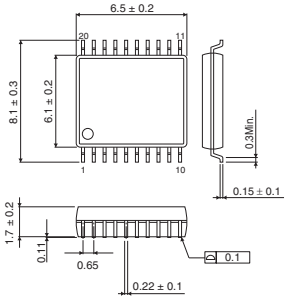
Embossed carrier tape:2,500pcs

SSOP-B16



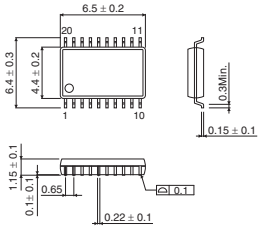
Embossed carrier tape:2,500pcs

SSOP-B20W



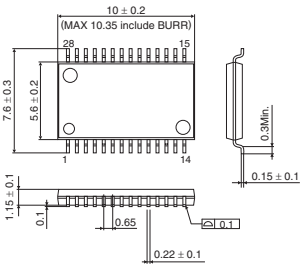
Embossed carrier tape:2,000pcs

SSOP-B20



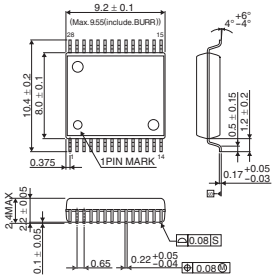
Embossed carrier tape:2,500pcs

SSOP-B28



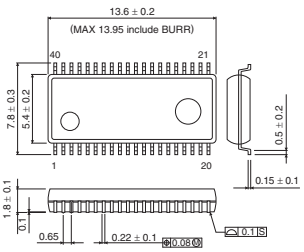
Embossed carrier tape:2,000pcs

SSOP-B28W



Embossed carrier tape:1,500pcs

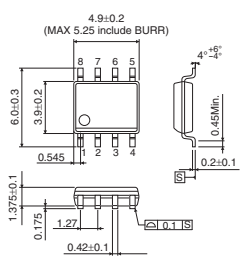
SSOP-B40



Embossed carrier tape:2,000pcs

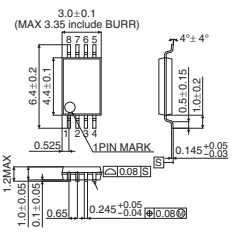
JEDEC<引脚间距：1.27mm/0.65mm/0.5mm>

SOP-J8



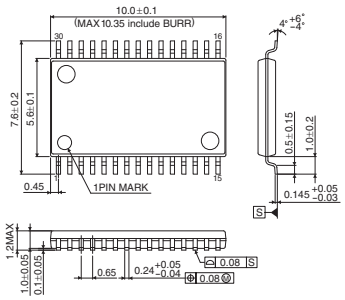
Embossed carrier tape:2,500pcs

TSSOP-B8



Embossed carrier tape:3,000pcs

TSSOP-B30



Embossed carrier tape:2,000pcs

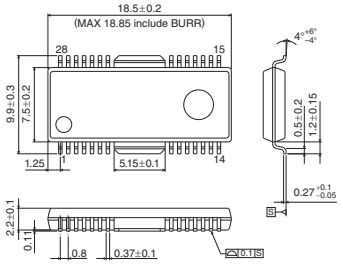
LAPIS Semiconductor产品对应页请参见P.40 ～

HSOP封装

（单位: mm）

HSOP＜引脚间距：0.8mm＞

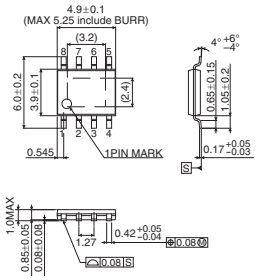
HSOP-M28



Embossed carrier tape:1,500pcs

HTSOP-J＜引脚间距：1.27mm＞

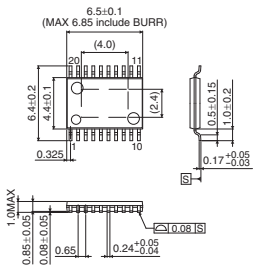
HTSOP-J8



Embossed carrier tape:2,500pcs

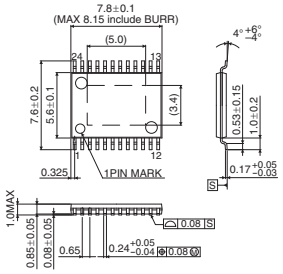
HTSSOP-B＜引脚间距：0.65mm＞

HTSSOP-B20



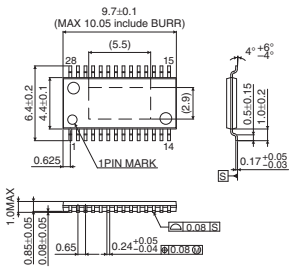
Embossed carrier tape:2,500pcs

HTSSOP-B24



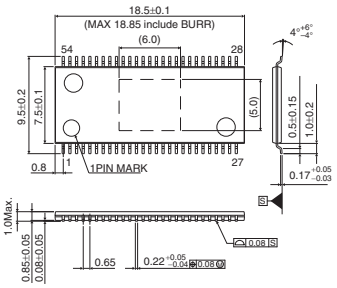
Embossed carrier tape:2,000pcs

HTSSOP-B28



Embossed carrier tape:2,500pcs

HTSSOP-B54



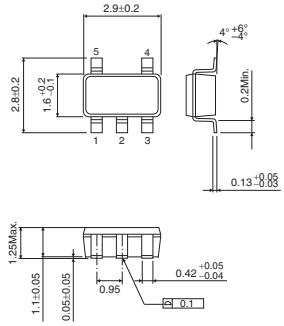
Embossed carrier tape:1,500pcs

Small封装

（单位: mm）

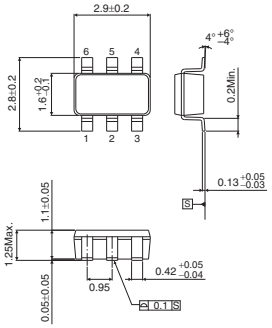
SOP Type

SSOP5



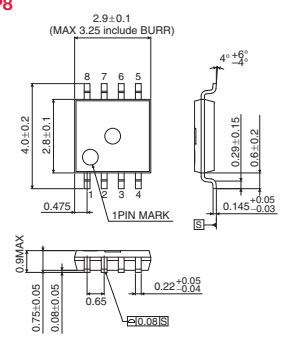
Embossed carrier tape:3,000pcs

SSOP6



Embossed carrier tape:3,000pcs

MSOP8



Embossed carrier tape:3,000pcs

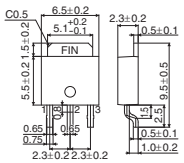
LAPIS Semiconductor产品对应页请参见P.40 ～

功率封装

（单位: mm）

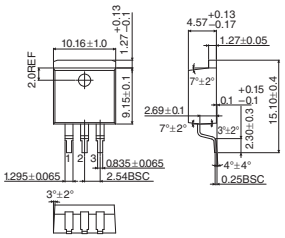
POWER-3PIN

TO252-3



Embossed carrier tape:2,000pcs

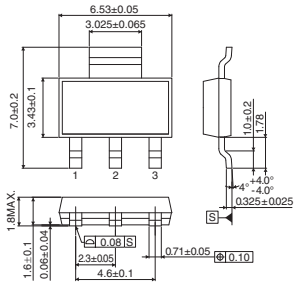
TO263-3



Embossed carrier tape:500pcs

POWER-4PIN

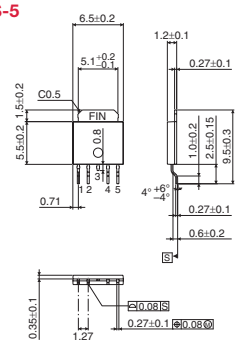
SOT223-4



Embossed carrier tape:2,000pcs

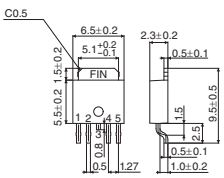
POWER-5PIN

TO252S-5



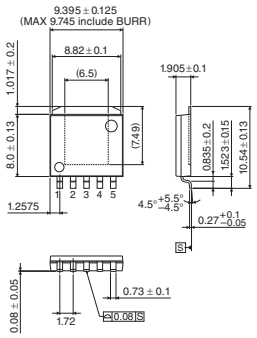
Embossed carrier tape:2,000pcs

TO252-5



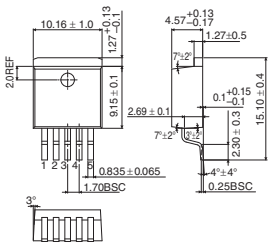
Embossed carrier tape:2,000pcs

HRP5



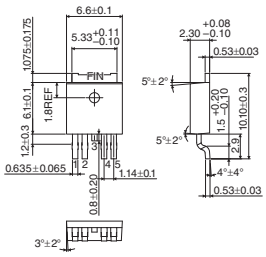
Embossed carrier tape:2,600pcs

TO263-5



Embossed carrier tape:500pcs

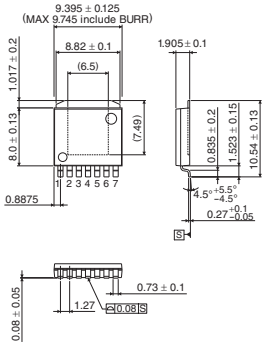
TO252-J5



Embossed carrier tape:2,000pcs

POWER-7PIN

HRP7



Embossed carrier tape:2,000pcs

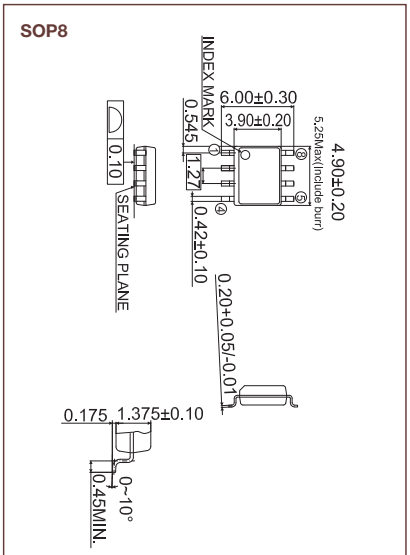
刊载各封装的代表性外形图。详细内容请咨询销售人员。

SOP封装

（单位: mm）

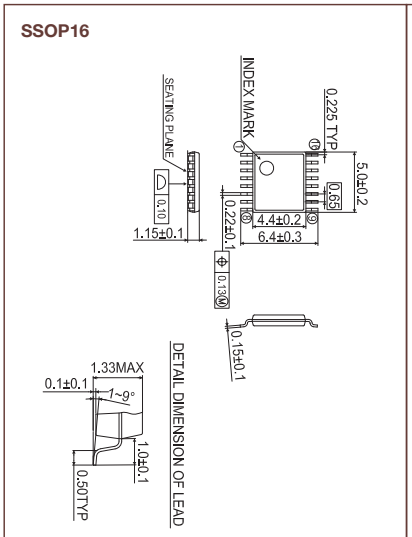
SOP

SOP8

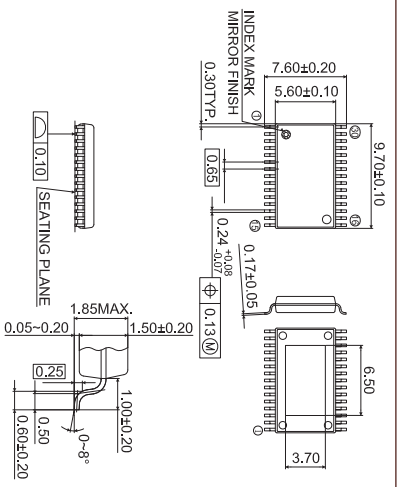


SSOP

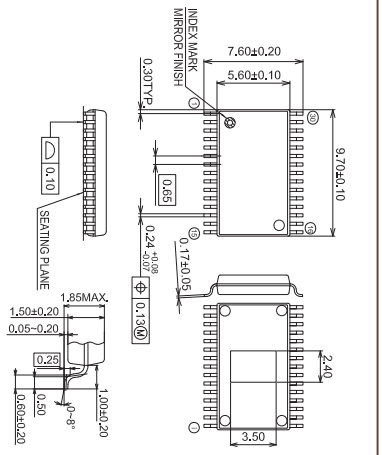
SSOP16



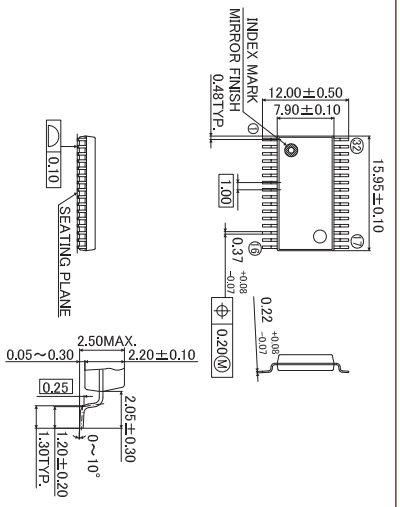
P-SSOP30-56-0.65-Z6K



P-SSOP30-56-0.65-Z6K9-MC

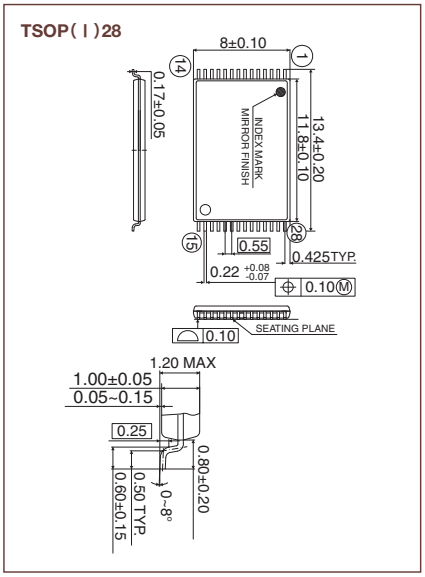


SSOP32



TSOP(Type Ⅰ)

TSOP(Ⅰ)28



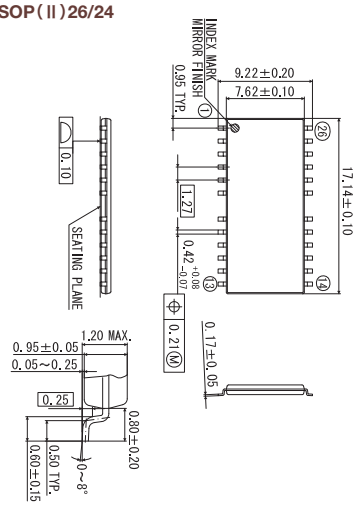
刊载各封装的代表性外形图。详细内容请咨询销售人员。

SOP封装

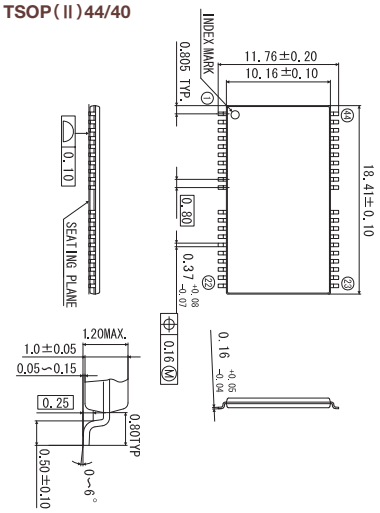
（单位: mm）

TSOP(Type Ⅱ)

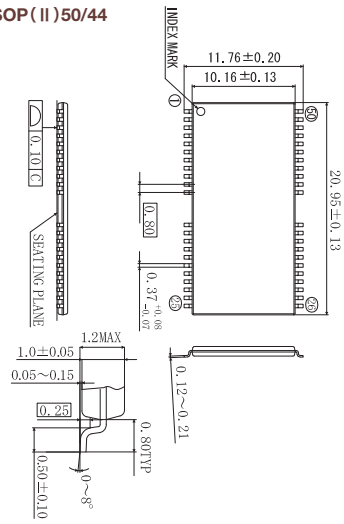
TSOP(Ⅱ)26/24



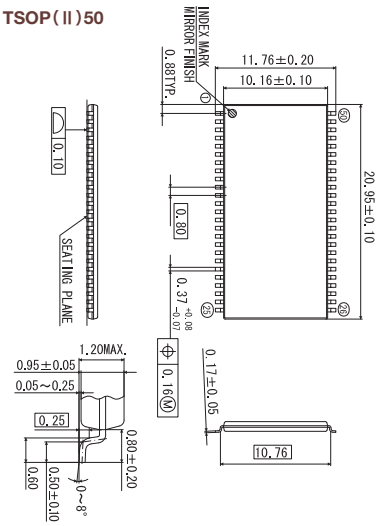
TSOP(Ⅱ)44/40



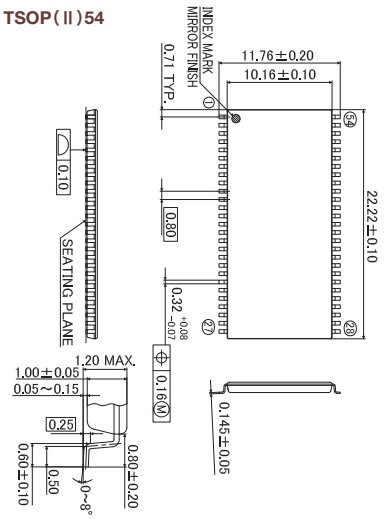
TSOP(Ⅱ)50/44



TSOP(Ⅱ)50



TSOP(Ⅱ)54

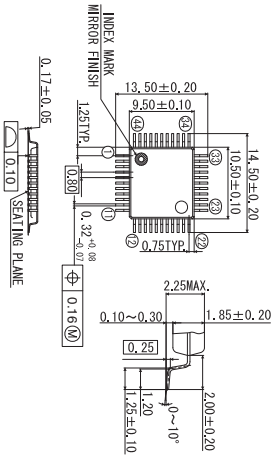


QFP封装

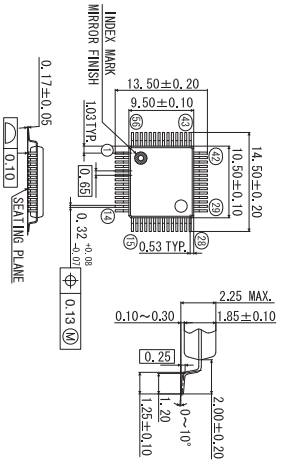
（单位: mm）

QFP

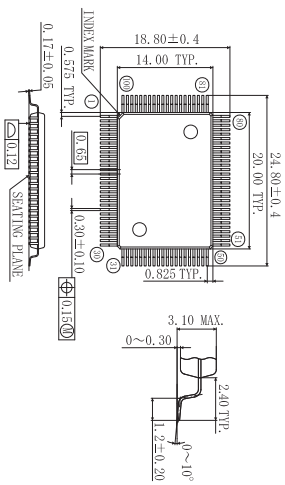
QFP44



QFP56



P-QFP100-1420-0.65-TK



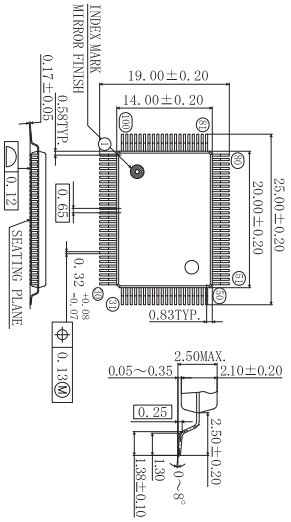
刊载各封装的代表性外形图。详细内容请咨询销售人员。

QFP封装

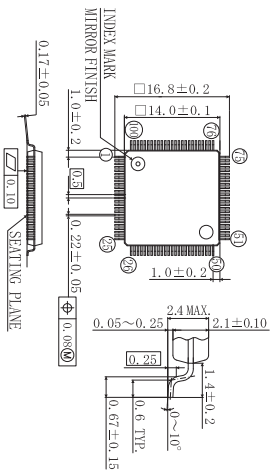
（单位: mm）

QFP

QFP100-P-1420-0.65-BK

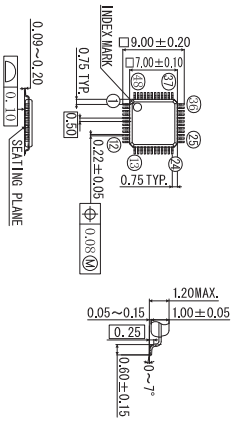


P-QFP100-1414-0.50-K

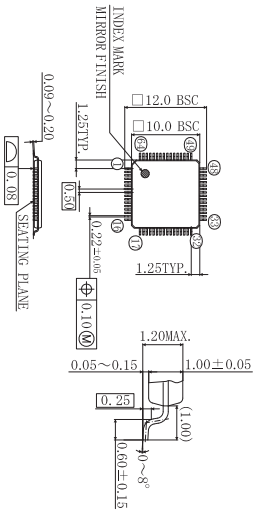


TQFP

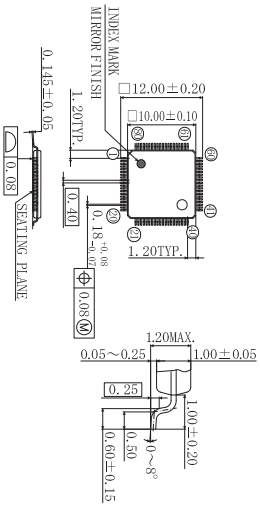
TQFP48



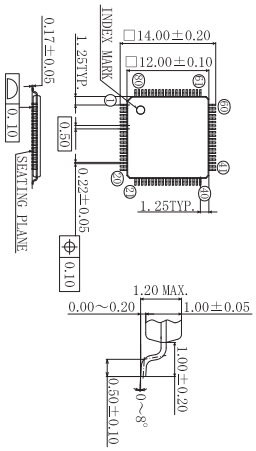
TQFP64



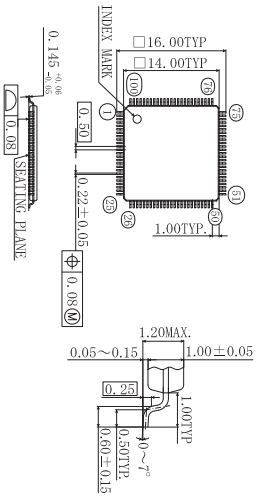
P-TQFP80-1010-0.40



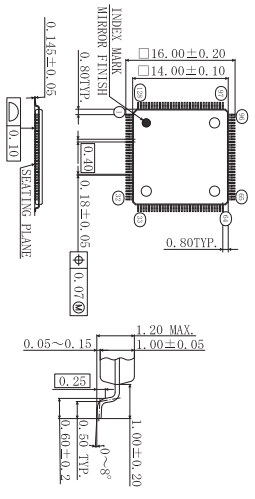
P-TQFP80-1212-0.50



TQFP100



TQFP128



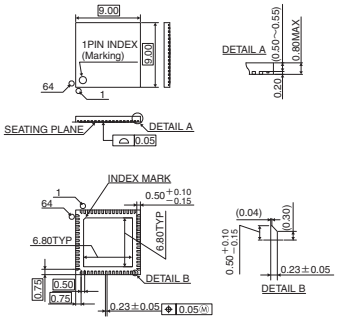
刊载各封装的代表性外形图。详细内容请咨询销售人员。

QFN封装

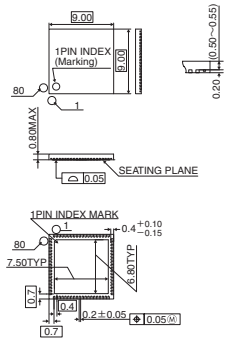
（单位: mm）

WQFN

WQFN64



WQFN80

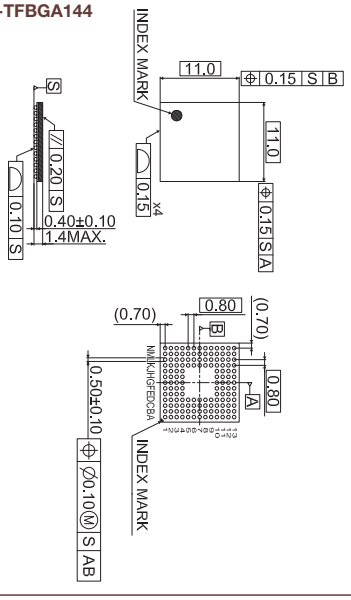


BGA封装

（单位: mm）

TFBGA

P-TFBGA144



SiC IGBT Tr Di R

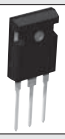
Automotive

【功率器件 • 分立式半导体 • 无源元件 • 光学器件】

目录

SiC肖特基势垒二极管

●SiC肖特基势垒二极管快速参考

V_{RM} (V)	I_F (A)	Leaded Type				Surface Mounted Type	
							
		TO-220AC		TO-247		TO-263AB (LPTL)	
650	6	SCS206AGHR	7			New SCS206AJHR	1
	8	SCS208AGHR	8			New SCS208AJHR	2
	10	SCS210AGHR	9			New SCS210AJHR	3
	12	SCS212AGHR	10			New SCS212AJHR	4
	15	SCS215AGHR	11			New SCS215AJHR	5
	20	SCS220AGHR	12	SCS220AE2HR	13	New SCS220AJHR	6
	30			SCS230AE2HR	14		
	40			SCS240AE2HR	15		
1,200	5	SCS205KGHR	16				
	10	SCS210KGHR	17	SCS210KE2HR	20		
	15	SCS215KGHR	18				
	20	SCS220KGHR	19	SCS220KE2HR	21		
	30			☆SCS230KE2AHR	22		
	40			☆SCS240KE2AHR	23		

☆ : Under Development

SiC肖特基势垒二极管 (AEC-Q101)

Quick Reference No.	Part No.	Absolute Maximum Ratings (Ta=25°C) V_{RM} (V)	V_R (V)	I_F (A)	I_{FSM} (A) 60Hz.1	Electrical Characteristics (Ta=25°C) V_F (V) Typ.	I_F (A)	I_R (μA) Max.	V_R (V)	Package	Equivalent Circuit Diagram
1	New SCS206AJHR	650	650	6	24	1.35	6	120	600	TO-263AB (LPTL)	
2	New SCS208AJHR	650	650	8	31	1.35	8	160	600		
3	New SCS210AJHR	650	650	10	40	1.35	10	200	600		
4	New SCS212AJHR	650	650	12	45	1.35	12	240	600		
5	New SCS215AJHR	650	650	15	55	1.35	15	300	600		
6	New SCS220AJHR	650	650	20	71	1.35	20	400	600		
7	SCS206AGHR	650	650	6	24	1.35	6	120	600	TO-220AC	
8	SCS208AGHR	650	650	8	31	1.35	8	160	600		
9	SCS210AGHR	650	650	10	40	1.35	10	200	600		
10	SCS212AGHR	650	650	12	45	1.35	12	240	600		
11	SCS215AGHR	650	650	15	55	1.35	15	300	600		
12	SCS220AGHR	650	650	20	71	1.35	20	400	600		
13	SCS220AE2HR	650	650	10/20*	40/80*	1.35	10	200	600	TO-247	
14	SCS230AE2HR	650	650	15/30*	55/110*	1.35	15	300	600		
15	SCS240AE2HR	650	650	20/40*	71/140*	1.35	20	400	600		
16	SCS205KGHR	1,200	1,200	5	23	1.4	5	100	1,200	TO-220AC	
17	SCS210KGHR	1,200	1,200	10	45	1.4	10	200	1,200		
18	SCS215KGHR	1,200	1,200	15	65	1.4	15	300	1,200		
19	SCS220KGHR	1,200	1,200	20	82	1.4	20	400	1,200		
20	SCS210KE2HR	1,200	1,200	5/10*	23/46*	1.4	5	100	1,200	TO-247	
21	SCS220KE2HR	1,200	1,200	10/20*	44/88*	1.4	10	200	1,200		
22	☆SCS230KE2AHR	1,200	1,200	15/30*	65/130*	1.4	15	300	1,200		
23	☆SCS240KE2AHR	1,200	1,200	20/40*	83/160*	1.4	20	400	1,200		

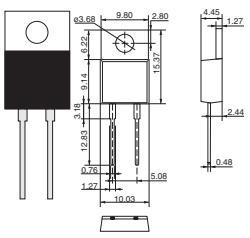
( ) : ROHM PKG.

☆ : Under Development * (Per Leg/Device)

●尺寸 (Unit: mm)

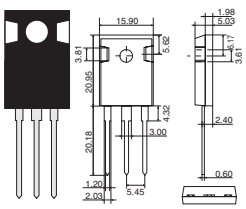
Leaded Type

TO-220AC (2pin)



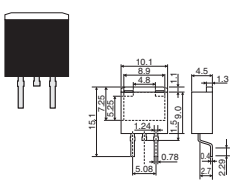
Each lead has same dimensions

TO-247 (3pin)



Each lead has same dimensions

TO-263AB (LPTL)



Each lead has same dimensions

●品名构成说明

•Schottky Barrier Diode Part No.Explanation

S	C	S	2	0	6	A	G	H	R
①	②	③	④			⑤	⑥		⑦

① SiC
② SBD
③ Generation
④ Current (A)
Example 05 → 5A
10 → 10A

⑤ Voltage
Example A → 650V
K → 1200V

⑥ Package
Example E → TO-247 (3pin)
E2 → TO-247 (3pin) (Dual chip)
G → TO-220AC (2pin)
J → LPT (L) (4pin)

⑦ Automotive Grade Available

●包装代码

Package	Code	Package Style	Basic Ordering Unit (pcs)
TO-263AB (LPTL)	TLL	Embossed tape	1,000
TO-220AC	C	tube	50
TO-247	C	tube	30

( ) : ROHM PKG.

SiC MOSFET

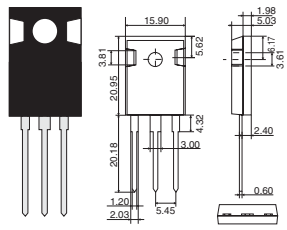
SiC MOSFET

Part No.	Pol. (ch)	V_{DSS} (V)	I_D (A)	P_D (W) (Tc=25℃)	R_{DS} (on) Typ. (mΩ)	Qg Typ. (nC)		Package
					V_{GS}=18V	V_{GS}=18V	Drive Voltage (V)	
☆**SCT2080KEAHR**	N	1,200	40	262	80	106	18	TO-247
☆**SCT2160KEAHR**	N	1,200	22	165	160	62	18	
☆**SCT2280KEAHR**	N	1,200	14	108	280	35	18	
☆**SCT2450KEAHR**	N	1,200	10	85	450	27	18	

☆ : Under Development

●尺寸 (Unit: mm)

TO-247



Each lead has same dimensions

●品名构成说明

•MOSFET Part No. (Basic Model)

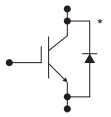
S	C	T	2	0	8	0	K	E	A	H	R
①		②	③	④	⑤	⑥	⑦	⑧		⑨	

① SiC
② T → MOSFET
③ Generation
④ ⑤ ⑥ ON-resistance (mΩ)
⑦ Voltage K → 1,200V
⑧ Package E → TO-247
⑨ Automotive Grade Available

●包装代码

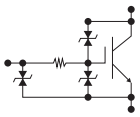
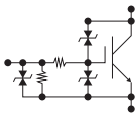
Package	Code	Package Style	Basic Ordering Unit (pcs)
TO-247	C	tube	30

Field Stop Trench IGBT

Field Stop Trench IGBT（AEC-Q101）													
Part No.	V_{CES} (V)	I_C (A)		P_D (W)	$V_{CE\ (sat)}$ Typ. (V)		tsc Min. (μsec)	$I_{F\ (Diode)}$ (A)		$V_{F\ (Diode)}$ Typ.(V)		Package	Equivalent Circuit Diagram
		Tc=25℃	Tc=100℃			I_c (A)		Tc=25℃	Tc=100℃		I_F (A)		
☆RGS60TS65DFHG	650	56	30	223	1.65	30	8	56	30	1.45	30	TO-247N	
☆RGS80TS65DFHG	650	73	40	272	1.65	40	8	56	30	1.45	30		
☆RGS00TS65DFHG	650	88	50	326	1.65	50	8	56	30	1.45	30		

☆：Under Development　*Built-in FRD

Ignition IGBT

Ignition IGBT（AEC-Q101）								
Part No.	V_{CES} (V)	V_{GE} (V)	I_C (A)	P_D (W)	Eas (mJ)	V_{CE} (sat) typ. (V)	Package	Equivalent Circuit Diagram
New RGPZ10BM40FH	430±30	±10	20	107	250	1.6	TO-252	
New RGPR10BM40FH	430±30	±10	20	107	250	1.6		

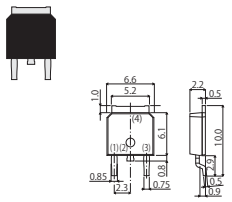
●品名构成说明

R	G	S	6	0	T	S	6	5	D	F	H	G
①		②	③		④		⑤		⑥	⑦		⑧

① IGBT
② Series Name
③ IC［I_C］
ex.　60 → 60A（Tc=25℃）　　10 → 10A（Tc=100℃）
④ Package
ex.　TS → TO-247N　　BM → TO-252
⑤ VCES［V_{CES}］
ex.　65 → 650V　　40 → 430±30V
⑥ With or without built-in FRD
⑦ Indicates automotive model
⑧ Indicates halogen-free products

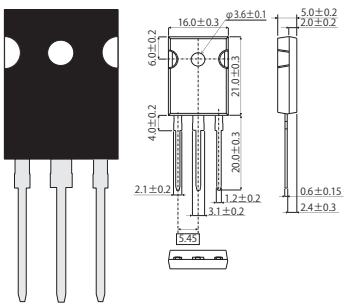
●尺寸 (Unit: mm)

TO-252



Each lead has same dimensions

TO-247N



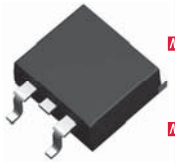
Each lead has same dimensions

●包装代码

Package	Code	Package Style	Basic Ordering Unit (pcs)
TO-252	TL	Embossed Tape	2,500
TO-247N	C11	tube	30

MOSFET

MOSFET (AEC-Q101)

Package (Dimension : mm)	Product No.			Polarity (ch)	V_{DS} (V)	I_D (A)	V_{GS} (V)	R_{DS} (on) (mΩ)				Qg Typ.	Ciss Typ.
								V_{GS}= 10V		V_{GS}= 4.5V		V_{GS}=10V (nC)	V_{DS}=10V (pF)
								Typ.	Max.	Typ.	Max.		
 SOT-428 (CPT3 D-PAK) [SC-63]	**RSD200N05**	FRA	TL	N	45	20	±20	20	28	25	35	12 *1	950
	RSD221N06	FRA	TL	N	60	22	±20	18	26	21	30	30	1500
	RSD150N06	FRA	TL	N	60	15	±20	28	40	33	47	18	930
	RSD080N06	FRA	TL	N	60	8	±20	57	80	70	98	9.4	380
	RSD050N06	FRA	TL	N	60	5	±20	78	109	94	131	8	290
	RSD201N10	FRA	TL	N	100	20	±20	33	46	36	50	55	2100 *2
	RSD175N10	FRA	TL	N	100	17.5	±20	75	105	80	112	24	950 *2
	RSD100N10	FRA	TL	N	100	10	±20	95	133	100	140	18	700 *2
	RSD050N10	FRA	TL	N	100	5	±20	135	190	142	200	14	530 *2
	☆**R5207PND**	FRA	TL	N	525	7	±30	780	1000	—	—	13	500 *2
	New **R5205PND**	FRA	TL	N	525	5	±25	1300	1600	—	—	10.8	320 *2
	New **R6006PND**	FRA	TL	N	600	6	±30	900	1200	—	—	15	460 *2
	New **R6004PND**	FRA	TL	N	600	4	±25	1400	1800	—	—	11	280 *2
	RSD160P05	FRA	TL	P	−45	−16	±20	35	50	45	63	16 *1	2000
	RSD080P05	FRA	TL	P	−45	−8	±20	65	91	95	133	9 *1	1000
	RSD046P05	FRA	TL	P	−45	−4.5	±20	110	155	160	225	12	550
	RSD140P06	FRA	TL	P	−60	−14	±20	60	84	73	103	27	1900
	RSD131P10	FRA	TL	P	−100	−13	±20	135	200	150	220	40	2400 *2
 TO-263 (LPT)	**RSJ451N04**	FRA	TL	N	40	45	±20	9.5	13.5	—	—	43	2400 *2
	RSJ800N06	FRA	TL	N	60	80	±20	4.5	6.3	5.0	7.0	130	6000
	RSJ400N06	FRA	TL	N	60	40	±20	11	16	—	—	52	2400
	RSJ650N10	FRA	TL	N	100	65	±20	6.5	9.1	7 *3	9.8 *3	260	10780 *2
	RSJ550N10	FRA	TL	N	100	55	±20	12	16.8	13.5 *3	18.9 *3	143	6150 *2
	RSJ400N10	FRA	TL	N	100	40	±20	19	27	21 *3	30 *3	90	3600 *2
	New **RSJ301N10**	FRA	TL	N	100	30	±20	33	46	36 *3	50 *3	60	2100 *2
	☆**RJ1T700AA**	FRG	TL	N	200	70	±30	30.5	42.7	—	—	125	6900 *2
	☆**RJ1U510AA**	FRG	TL	N	250	51	±30	48	65	—	—	120	7000 *2
	New **RJ1U330AA**	FRG	TL	N	250	33	±30	77	105	—	—	80	4500 *2
	☆**RJ1U120AA**	FRG	TL	N	250	22	±30	180	235	—	—	35	1800 *2
	New **R6020PNJ**	FRG	TL	N	600	20	±30	190	250	—	—	65	2040 *2
	☆**R6015PNJ**	FRG	TL	N	600	15	±30	230	300	—	—	50	1700 *2
	☆**R6012PNJ**	FRG	TL	N	600	12	±30	320	420	—	—	35	1300 *2
	☆**R6010PNJ**	FRG	TL	N	600	10	±30	430	560	—	—	27	980 *2
	☆**R6008PNJ**	FRG	TL	N	600	8	±30	600	800	—	—	21	680 *2
	RSJ250P10	FRA	TL	P	−100	−25	±20	45	63	48	67	60 *1	8000 *2

( ) : ROHM PKG [ ] : JEITA Code *1 V_{GS}=5V *2 V_{DS}=25V *3 V_{GS}=4.0V

☆ : Under Development

MOSFET

MOSFET（AEC-Q101）1

Package (Dimension : mm)	Product No.			Polarity	V_{DSS} (V)	I_D (A)	V_{GS} (V)	R_{DS} (on) (mΩ)								Qg Typ. (nC)	Ciss Typ. (pF)
								V_{GS}=10V		V_{GS}=4.5V		V_{GS}=2.5V		V_{GS}=1.5V		V_{GS}=5V	V_{DS}=10V
								Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.		
SOT-323 (UMT3) [SC-70] 2021 Size	RJU003N03	FRA	T106	N	30	0.3	±12	—	—	800	1100	1400	1900	—	—	—	24
	RHU003N03	FRA	T106		30	0.3	±20	800	1200	1200	1900	—	—	—	—	—	20
	RHU002N06	FRA	T106		60	0.2	±20	1700	2400	2800*5	4000*5	—	—	—	—	2.2*1	15
	RJU002N06	FRA	T106		60	0.2	±12	—	—	1600	2300	2200	3100	—	—	—	18
SOT-363 (UMT6) [SC-88] 2021 Size	UM6K31N	FHA	TCN	N+N	60	0.25	±20	1700	2400	2100	3000	3000	12000	—	—	—	15*3
SOT-346 (SMT3) [SC-59] 2928 Size	RJK005N03	FRA	T146	N	30	0.5	±12	—	—	400	580	650	940	—	—	2*5	60
	RHK005N03	FRA	T146		30	0.5	±20	350	550	510	720	—	—	—	—	—	45
	RHK003N06	FRA	T146		60	0.3	±20	700	1000	—	—	—	—	—	—	3*1	33
SOT-23 (SST3) 2924 Size	RK7002A	FRA	T116	N	60	0.3	±20	700	1000	1100*5	1400*5	—	—	—	—	3*1	33
	New RK7002BM	FRA	T116		60	0.25	±20	1700	2400	2100	3000	3000	12000	—	—	—	15
SOT-323T (TUMT3) [SC-113A] 2021 Size	RUF025N02	FRA	TL	N	20	2.5	±10	—	—	39	54	49	68	80	160	5*2	370
	RTF025N03	FRA	TL		30	2.5	±12	—	—	48	67	70	98	—	—	3.7*2	270
	RTF016N05	FRA	TL		45	1.6	±12	—	—	140	190	200	280	—	—	2.3*2	150
	RSF015N06	FRA	TL		60	1.5	±20	210	290	240	330	—	—	—	—	2	110
SOT-363T (TUMT6) [SC-113DA] 2021 Size	RUL035N02	FRA	TR	N	20	3.5	±10	—	—	31	43	38	53	66	93	5.7*2	460
	RTL035N03	FRA	TR		30	3.5	±12	—	—	40	56	56	79	—	—	4.6*2	350
	RTL020P02	FRA	TR	P	−20	−2	±12	—	—	100	135	180	250	—	—	4.9*2	430
	New RRL025P03	FRA	TR		−30	−2.5	±20	55	75	85	115	—	—	—	—	5.2	480
	RSL020P03	FRA	TR		−30	−2	±20	80	120	125	190	—	—	—	—	3.9	350
	RRL035P03	FRA	TR		−30	−3.5	±20	36	50	52	72	—	—	—	—	8	800
SOT-346T (TSMT3) [SC-96] 2928 Size	RUR040N02	FRA	TL	N	20	4	±10	—	—	25	35	33	46	55	110	8*2	680
	RTR040N03	FRA	TL		30	4	±12	—	—	34	48	47	66	—	—	5.9*2	475
	RTR025N03	FRA	TL		30	2.5	±12	—	—	66	92	95	133	—	—	3.3*2	220
	RSR025N03	FRA	TL		30	2.5	±20	50	70	74	105	—	—	—	—	2.9	165
	RTR030N05	FRA	TL		45	3	±12	—	—	48	67	68	95	—	—	6.2*2	510
	RTR025N05	FRA	TL		45	2.5	±12	—	—	95	130	125	175	—	—	3.2*2	250
	RSR025N05	FRA	TL		45	2.5	±20	70	100	95	150	—	—	—	—	3.6	260
	RTR020N05	FRA	TL		45	2	±12	—	—	130	180	180	250	—	—	2.9*2	200
	RSR030N06	FRA	TL		60	3	±20	60	85	70	100	—	—	—	—	5	380
	RSR020N06	FRA	TL		60	2	±20	120	170	140	195	—	—	—	—	2.7	180
	RSR010N10	FHA	TL		100	1	±20	370	520	400	560	—	—	—	—	3.5	140*3
	RTR030P02	FHA	TL	P	−20	−3	±12	—	—	55	75	90	125	—	—	9.3*2	840
	RTR025P02	FRA	TL		−20	−2.5	±12	—	—	70	95	115	160	—	—	7*2	630
	RTR020P02	FRA	TL		−20	−2	±12	—	—	100	135	180	250	—	—	4.9*2	430
	RRR040P03	FRA	TL		−30	−4	±20	32	45	45	63	—	—	—	—	10.5	1000
	RRR030P03	FRA	TL		−30	−3	±20	55	75	85	115	—	—	—	—	5.2	480
	RSR025P03	FRA	TL		−30	−2.5	±20	70	98	100	140	—	—	—	—	5.4	460
	RSR020P05	FRA	TL		−45	−2	±20	130	190	180	260	—	—	—	—	4.5*2	500
	RSR015P06	FRA	TL		−60	−1.5	±20	200	280	240	340	—	—	—	—	10*1	500
SOT-457T (TSMT6) [SC-95] 2928 Size	RUQ050N02	FRA	TR	N	20	5	±10	—	—	22	30	27	38	40	80	12*2	900
	RTQ045N03	FRA	TR		30	4.5	±12	—	—	30	43	42	60	—	—	7.6*2	540
	RSQ045N03	FRA	TR		30	4.5	±20	27	38	36	51	—	—	—	—	6.8	520
	RTQ035N03	FRA	TR		30	3.5	±12	—	—	38	54	55	77	—	—	4.6*2	285
	RSQ035N03	FRA	TR		30	3.5	±20	44	62	60	84	—	—	—	—	5.3	290
	RSQ020N03	FRA	TR		30	2	±20	96	134	148	207	—	—	—	—	2.2	110
	RVQ040N05	FRA	TR		45	4	±21	38	53	47	66	—	—	—	—	6.3	530
	RTQ020N05	FRA	TR		45	2	±12	—	—	140	190	200	280	—	—	2.3*2	150
	RSQ035N06	FRA	TR		60	3.5	±20	50	70	58	82	—	—	—	—	6.5	430
	RSQ015N06	FRA	TR		60	1.5	±20	210	290	240	330	—	—	—	—	2	110
	QS6K1	FRA	TR	N+N	30	1	±12	—	—	170	238	260	364	—	—	1.7*2	77
	QS6K21	FRA	TR		45	1	±12	—	—	300	420	415	585	—	—	1.5*2	95
	RTQ035P02	FHA	TR	P	−20	−3.5	±12	—	—	50	65	80	100	—	—	10.5*2	1200
	RTQ025P02	FRA	TR		−20	−2.5	±12	—	—	72	100	140	190	—	—	6.4*2	580
	RRQ045P03	FRA	TR		−30	−4.5	±20	25	35	34	48	—	—	—	—	14	1350
	RSQ035P03	FRA	TR		−30	−3.5	±20	45	65	65	90	—	—	—	—	9.2	780
	RRQ030P03	FRA	TR		−30	−3	±20	55	75	85	115	—	—	—	—	5.2	480
	RSQ025P03	FRA	TR		−30	−2.5	±20	80	110	120	165	—	—	—	—	4.4	320
	RSQ015P10	FRA	TR		−100	−1.5	±20	350	470	380	510	—	—	—	—	17	950*3
(TSMT8) 3028 Size	RQ1C075UN	FRA	TR	N	20	7.5	±10	—	—	11	16	14	20	20	40	18*2	1400
	QS8K2	FRA	TR	N+N	30	3.5	±12	—	—	38	54	55	77	—	—	4.6*2	285
	RQ1A070ZP	FRA	TR	P	−12	−7	±10	—	—	8	12	11	16	19	38	58*2	7400*4
	RQ1E070RP	FRA	TR		−30	−7	±20	12	17	17	24	—	—	—	—	26	2700
	RQ1E050RP	FRA	TR		−30	−5	±20	22	31	32	45	—	—	—	—	13	1300
	QS8J4	FRA	TR	P+P	−30	−4	±20	40	56	55	77	—	—	—	—	8.4	800
	QS8M51	FRA	TR	N+P	100	2	±20	240	325	250	340	—	—	—	—	4.7	290*3
					−100	−1.5	±20	350	470	380	510	—	—	—	—	17	950*3

( ) : ROHM PKG [ ] : JEITA Code *1 V_{GS}=10V *2 V_{GS}=4.5V *3 V_{DS}=25V *4 V_{DS}=6V *5 V_{DS}=4V

MOSFET（AEC-Q101）2

Package (Dimension : mm)	Product No.			Polarity	V_{DSS} (V)	I_D (A)	V_{GS} (V)	R_{DS} (on) (mΩ)						Qg Typ. (nC)	Ciss Typ. (pF)
								V_{GS}=10V		V_{GS}=4.5V		V_{GS}=2.5V		V_{GS}=5V	V_{DS}=10V
								Typ.	Max.	Typ.	Max.	Typ.	Max.		
 SOT-89 (MPT3) [SC-62] 4540 Size	**RHP030N03**	FRA	T100	N	30	3	±20	90	120	160*2	210*2	—	—	6.5*1	160
	RJP020N06	FRA	T100		60	2	±12	—	—	165	240	210	300	5*2	160
	RHP020N06	FRA	T100		60	2	±20	150	200	200	280	—	—	7*1	140
 (SOP8) 5060 Size	**RSS130N03**	FRA	TB	N	30	13	±20	5.9	8.3	7.4	10.4	—	—	25	2000
	RSS100N03	FRA	TB		30	10	±20	9.5	13.3	12.5	17.5	—	—	14	1070
	RSS090N03	FRA	TB		30	9	±20	11	16	15	22	—	—	11	810
	RSS095N05	FRA	TB		45	9.5	±20	11	16	14	20	—	—	18.9	1830
	RSS085N05	FRA	TB		45	8.5	±20	13	18	16	23	—	—	15.3	1500
	RSS070N05	FRA	TB		45	7	±20	18	25	23	32	—	—	12	1000
	RSS065N06	FRA	TB		60	6.5	±20	24	37	28	44	—	—	11	900
	SP8K3	FRA	TB	N+N	30	7	±20	17	24	23	33	—	—	8.4	600
	SP8K2	FRA	TB		30	6	±20	21	30	30	42	—	—	7.2	520
	SP8K1	FRA	TB		30	5	±20	36	51	52	73	—	—	3.9	230
	SP8K5	FRA	TB		30	3.5	±20	59	83	93	130	—	—	2.5	140
	SP8K24	FRA	TB		45	6	±20	18	25	24	34	—	—	15.4	1400
	SP8K23	FRA	TB		45	5	±20	26	36	33	46	—	—	8.6	700
	SP8K22	FRA	TB		45	4.5	±20	33	46	41	57	—	—	6.8	550
	SP8K33	FRA	TB		60	5	±20	34	48	38	54	—	—	8	620
	SP8K32	FRA	TB		60	4.5	±20	46	65	52	73	—	—	7	500
	SP8K31	FRA	TB		60	3.5	±20	85	120	100	140	—	—	3.7	250
	SP8K52	FRA	TB		100	3	±20	120	170	130	180	—	—	8.5	610*3
	RRS140P03	FRA	TB	P	−30	−14	±20	5	7	6.7	9.4	—	—	80	8000
	RRS100P03	FRA	TB		−30	−10	±20	9	12.6	12.5	17.5	—	—	39	3600
	RRS090P03	FRA	TB		−30	−9	±20	11	15.4	15	21	—	—	30	3000
	RRS075P03	FRA	TB		−30	−7.5	±20	15	21	22	31	—	—	21	1900
	RRS050P03	FRA	TB		−30	−5	±20	36	50	52	72	—	—	9.2	850
	RRS040P03	FRA	TB		−30	−4	±20	55	75	85	115	—	—	5.2	480
	RSS070P05	FRA	TB		−45	−7	±20	19	27	25	35	—	—	34	4100
	RSS060P05	FRA	TB		−45	−6	±20	26	36	35	49	—	—	23	2700
	SP8J66	FRA	TB	P+P	−30	−9	±20	13.5	18.5	17.5	23.6	—	—	35	3000
	SP8J5	FRA	TB		−30	−7	±20	20	28	25	35	—	—	25	2600
	SP8M3	FRA	TB	N+P	30	5	±20	36	51	52	73	—	—	3.9	230
					−30	−4.5	±20	40	56	57	80	—	—	8.5	850
	SP8M4	FRA	TB		30	9	±20	12	18	16	24	—	—	15	1190
					−30	−7	±20	20	28	25	35	—	—	25	2600
	SP8M5	FRA	TB		30	6	±20	21	30	30	42	—	—	7.2	520
					−30	−7	±20	20	28	25	35	—	—	25	2600
	SP8M6	FRA	TB		30	5	±20	36	51	52	73	—	—	3.9	230
					−30	−3.5	±20	65	90	100	140	—	—	5.5	490
	SP8M8	FRA	TB		30	6	±20	21	30	30	42	—	—	7.2	520
					−30	−4.5	±20	40	56	57	80	—	—	8.5	850
	SP8M10	FRA	TB		30	7	±20	17	25	23	35	—	—	8.4	600
					−30	−4.5	±20	40	56	57	80	—	—	8.5	850
	SP8M21	FRA	TB		45	6	±20	18	25	24	34	—	—	15.4	1400
					−45	−4	±20	33	46	43	60	—	—	20	2400
	SP8M24	FRA	TB		45	4.5	±20	33	46	41	57	—	—	6.8	550
					−45	−3.5	±20	45	63	60	84	—	—	13	1700
	SP8M41	FRA	TB		80	3.4	±20	90	130	110	150	—	—	6.6	600
					−80	−2.6	±20	165	240	220	300	—	—	8.2	1000
	SP8M51	FRA	TB		100	3	±20	120	170	130	180	—	—	8.5	610
					−100	−2.5	±20	210	290	230	320	—	—	12.5	1550

( ) : ROHM PKG [ ] : JEITA Code *1 V_{GS}=10V *2 V_{GS}=4.0V *3 V_{DS}=25V

双极晶体管 （表面安装型）

一般增幅用 双极晶体管（扁平引线型）（AEC-Q101）

Package / Polarity / Application	SOT-723 (VMT3) [SC-105AA] 1212 Size		SOT-416FL (EMT3F) [SC-89] 1616 Size		SOT-323FL (UMT3F) [SC-85] 2021 Size		V_{CEO} (V)	I_C (A)	h_{FE}*2
	 *1 P_D=0.15W		 *1 P_D=0.15W		 *1 P_D=0.2W				
	PNP	NPN	PNP	NPN	PNP	NPN			
General Purpose Amplification	2SA2029FHAT2L	2SC5658FHAT2L	2SA1774EBHZGTL	2SC4617EBHZGTL	2SA1576UBHZGTL	2SC4081UBHZGTL	50	0.15	120 to 560

1.*1 with reference land installed 2.*2 For h_{FE}, please see the technical specifications. 3.PNP (-) symbol omitted.
( ) : ROHM PKG [ ] : JEITA Code

一般增幅用 双极晶体管（鸥翼引线型）（AEC-Q101）

Package / Polarity / Application	SOT-416 (EMT3) [SC-75A] 1616 Size		SOT-323 (UMT3) [SC-70] 2021 Size		SOT-346 (SMT3) [SC-59] 2928 Size		V_{CEO} (V)	I_C (A)	h_{FE}*2
	 *1 P_D=0.15W		 *1 P_D=0.2W		 *1 P_D=0.2W				
	PNP	NPN	PNP	NPN	PNP	NPN			
General Purpose Amplification	2SA1774FRATL	2SC4617FRATL	2SA1576AFRAT106	2SC4081FRAT106	2SA1037AKFRAT146	2SC2412KFRAT146	50	0.15	120 to 560
Low V_{CE} (sat)	—	—	2SB1694FRAT106	2SD2656FRAT106	—	—	30	1	270 to 680
Driver	—	—	—	—	2SA1036KFRAT146	2SC2411KFRAT146	32	0.5	120 to 390
	—	—	—	—	2SB1197KFRAT146	2SD1781KFRAT146	32	0.8	120 to 390
	—	—	—	—	—	2SD1484KFRAT146	50	0.5	120 to 390
	—	—	—	—	2SB1198KFRAT146	2SD1782KFRAT146	80	0.5	120 to 390
High speed SW	—	—	2SA2088FRAT106	2SC5876FRAT106	—	—	60	0.5	120 to 270 120 to 390
High voltage-resistance	—	—	2SA1579FRAT106	2SC4102FRAT106	2SA1514KFRAT146	2SC3906KFRAT146	120	0.05	180 to 560

1.*1 with reference land installed 2.*2 For h_{FE}, please see the technical specifications. 3.PNP (-) symbol omitted.
( ) : ROHM PKG [ ] : JEITA Code

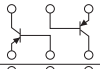
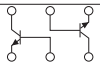
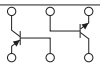
功率 双极晶体管（AEC-Q101）

Package / Polarity / Application	SOT-89 (MPT3) [SC-62] 4540 Size		SOT-428 (CPT3 DPAK) [SC-63]		V_{CEO} (V)	I_C (A)	h_{FE}*2
	 *1 P_D=0.5W		 *1 P_D=1W				
	PNP	NPN	PNP	NPN			
Driver	2SAR293PFRAT100	2SCR293PFRAT100	—	—	30	1	270 to 680
	2SAR512PFRAT100	2SCR512PFRAT100	—	—	30	2	200 to 500
	2SAR552PFRAT100	2SCR552PFRAT100	—	—	30	3	200 to 500
	2SAR542PFRAT100	2SCR542PFRAT100			30	5	200 to 500
	—	—	2SAR572DFHGTL	2SCR572DFHGTL	30	5	200 to 500
	2SAR513PFRAT100	2SCR513PFRAT100	—	—	50	1	180 to 450
	2SAR553PFRAT100	2SCR553PFRAT100	—	—	50	2	180 to 450
	2SAR533PFRAT100	2SCR533PFRAT100	—	—	50	3	180 to 450
	—	—	2SAR573DFHGTL	2SCR573DFHGTL	50	3	180 to 450
	2SAR514PFRAT100	2SCR514PFRAT100	—	—	80	0.7	120 to 390
	2SAR554PFRAT100	2SCR554PFRAT100	—	—	80	1.5	120 to 390
	—	—	2SAR574DFHGTL	2SCR574DFHGTL	80	2	120 to 390
	2SAR544PFRAT100	2SCR544PFRAT100	—	—	80	2.5	120 to 390
	—	2SCR372PFRAT100	—	—	120	0.7	120 to 390
	—	2SCR375PFRAT100	—	—	120	1.5	120 to 390

1.*1 with reference land installed 2.*2 For h_{FE}, please see the technical specifications. 3.PNP (-) symbol omitted.
( ) : ROHM PKG [ ] : JEITA Code

复合双极晶体管

一般增幅用 复合双极晶体管（AEC-Q101）

Configuration	Package / Item / Application	Equivalent Circuit Diagram (TOP View)	SOT-553/SOT-563 (EMT5/EMT6) [SC-107BB/SC-107C] 1616 Size	SOT-353/SOT-363 (UMT5/UMT6) [SC-88A/SC-88] 2021 Size	Equivalent Element Transistors	V_{CEO} (V)	I_C (A)	h_{FE}*1
			Part No.					
PNP×2	Pre Amp.		**EMT1FHAT2L**	**UMT1NFHATN**	2SA1037AK×2	−50	−0.15	120 to 560
NPN×2	Pre Amp.		**EMX1FHAT2L**	**UMX1NFHATN**	2SC2412K×2	50	0.15	120 to 560
PNP + NPN	Pre Amp.		**EMZ1FHAT2L**	**UMZ1NFHATR**	2SA1037AK 2SC2412K	−50 50	−0.15 0.15	120 to 560 120 to 560

For pin configuration, refer to the specification.
( ) : ROHM PKG [ ] : JEITA Code
*1.For h_{FE}, please see the technical specifications.

数字晶体管

100mA 数字晶体管（AEC-Q101）

Item / Specifications	Part No. PNP	Part No. NPN	R1 (kΩ)	R2 (kΩ)	Package: SOT-723 (VMT3) [SC-105AA] 1212 Size	SOT-416FL (EMT3F) [SC-89] 1616 Size	SOT-416 (EMT3) [SC-75A] 1616 Size	SOT-323FL (UMT3F) [SC-85] 2021 Size	SOT-323 (UMT3) [SC-70] 2021 Size	SOT-346 (SMT3) [SC-59] 2928 Size	V_{CC} (V_{CEO}) (V)	I_O (I_C) (A)	GI (h_{FE}*1)
					P_D=150mW			P_D=200mW					
R1=R2 Potential Divider Type	**DTA123ExA** *	**DTC123ExA** *	2.2	2.2	✓	☆✓	✓	☆✓	✓	✓	50	0.1	20 or more
	DTA143ExA *	**DTC143ExA** *	4.7	4.7	✓	✓	✓	✓	✓	✓		0.1	30 or more
	DTA114ExA *	**DTC114ExA** *	10	10	✓	✓	✓	✓	✓	✓		0.05	30 or more
	DTA124ExA *	**DTC124ExA** *	22	22	✓	✓	✓	✓	✓	✓		0.03	56 or more
	DTA144ExA *	**DTC144ExA** *	47	47	✓	✓	✓	✓	✓	✓		0.03	68 or more
	DTA115ExA *	**DTC115ExA** *	100	100	✓	✓	✓	✓	✓	✓		0.02	82 or more
R1≠R2 Leak Absorption Type	**DTA113ZxA** *	**DTC113ZxA** *	1	10	✓	☆✓	✓	☆✓	✓	✓		0.1	33 or more
	DTA123YxA *	**DTC123YxA** *	2.2	10	✓	✓	✓	☆✓	✓	✓		0.1	33 or more
	DTA123JxA *	**DTC123JxA** *	2.2	47	✓	✓	✓	✓	✓	✓		0.1	80 or more
	DTA143XxA *	**DTC143XxA** *	4.7	10	✓	✓	✓	✓	✓	✓		0.1	30 or more
	DTA143ZxA *	**DTC143ZxA** *	4.7	47	✓	✓	✓	✓	✓	✓		0.1	80 or more
	DTA114YxA *	**DTC114YxA** *	10	47	✓	✓	✓	✓	✓	✓		0.07	68 or more
	DTA124XxA *	**DTC124XxA** *	22	47	✓	☆✓	✓	☆✓	✓	✓		0.05	68 or more
Type using R1 alone as input Resistor	**DTA143TxA** *	**DTC143TxA** *	4.7	—	✓	✓	✓	✓	✓	✓		0.1	100 to 600
	DTA114TxA *	**DTC114TxA** *	10	—	✓	✓	✓	✓	✓	✓		0.1	100 to 600
x : Packaging designation symbol					M	EB	E	UB	U	K			
* : Specifications+Packaging type					FHAT2L	HZGTL	FRATL	HZGTL	FRAT106	FRAT146			

1.VMT3,EMT3F,EMT3 and UMT3F without suffix A.　2.PNP (-) symbol omitted.
( ) : ROHM PKG [ ] : JEITA Code
*1.For h_{FE}, please see the technical specifications.
☆ : Under Development

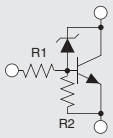
500mA 数字晶体管（AEC-Q101）

Item / Specifications	Part No. PNP	Part No. NPN	R1 (kΩ)	R2 (kΩ)	Package: SOT-323 (UMT3) [SC-70] 2021 Size	SOT-346 (SMT3) [SC-59] 2928 Size	V_{CC} (V_{CEO}) (V)	I_O (I_C) (A)	GI (h_{FE}*1)
					P_D=200mW				
R1=R2 Potential Divider Type	**DTB113Ex** *	**DTD113Ex** *	1	1	☆✓	✓	50	0.5	33 or more
	DTB123Ex *	**DTD123Ex** *	2.2	2.2	☆✓	✓			39 or more
	DTB143Ex *	**DTD143Ex** *	4.7	4.7	☆✓	✓			47 or more
	DTB114Ex *	**DTD114Ex** *	10	10	☆✓	✓			56 or more
R1≠R2 Leak Absorption Type	**DTB113Zx** *	**DTD113Zx** *	1	10	☆✓	✓			56 or more
	DTB123Yx *	**DTD123Yx** *	2.2	10	☆✓	✓			56 or more
Type using R2 alone asd Bleeder Resistor	**DTB114Gx** *	**DTD114Gx** *	—	10	☆✓	✓			56 or more
Type using R1 alone as input Resistor	**DTB123Tx** *	**DTD123Tx** *	2.2	—	☆✓	✓	40		100 to 600
x : Packaging designation symbol					U	K			
* : Specifications+Packaging type					FRAT106	FRAT146			

PNP (-) symbol omitted.
( ) : ROHM PKG [ ] : JEITA Code
*1.For h_{FE}, please see the technical specifications.
☆ : Under Development

数字晶体管

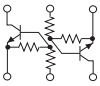
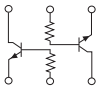
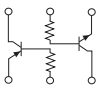
中功率 数字晶体管（AEC-Q101）

Item / Specifications	Part No. PNP	Part No. NPN	R1 (kΩ)	R2 (kΩ)	Package: SOT-89 (MPT3) [SC-62] 4540 Size	V_{CC} (V_{CEO}) (V)	I_O (I_C) (A)	GI (h_{FE}*1)
	—							
					P_D=500mW			
Driver	—	**DTDG23YPFRAT100**	2.2	10	✓	60±10	1	300 or more
	—	**DTDG14GPFRAT100**	—	10	✓			300 or more

For internal circuit, please see the technical specifications.
( ) : ROHM PKG [ ] : JEITA Code
*1.For h_{FE}, please see the technical specifications.

复合数字晶体管

100mA 复合数字晶体管（AEC-Q101）

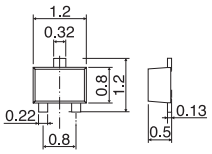
Configuration	Equivalent Circuit Diagram (TOP View)	SOT-563 (EMT6) [SC-107C] 1616 Size	SOT-363 (UMT6) [SC-88] 2021 Size	Equivalent Element Transistors	R1 (kΩ)	R2 (kΩ)	V_{CC} (V_{CEO}) (V)	I_O (I_C) (A)
								
		Part No.						
PNP ×2		**EMB10FHAT2R**	**UMB10NFHATN**	DTA123J×2	2.2	47	50	0.1
		EMB11FHAT2R	**UMB11NFHATN**	DTA114E×2	10	10		0.05
		EMB2FHAT2R	**UMB2NFHATN**	DTA144E×2	47	47		0.03
		**EMB3FHAT2R**	**UMB3NFHATN**	DTA143T×2	4.7	—		0.1
		EMB4FHAT2R	**UMB4NFHATN**	DTA114T×2	10	—		0.1
NPN ×2		**EMH10FHAT2R**	**UMH10NFHATN**	DTC123J×2	2.2	47		0.1
		EMH25FHAT2R	☆**UMH25NFHATN**	DTC143Z×2	4.7	47		0.1
		EMH11FHAT2R	**UMH11NFHATN**	DTC114E×2	10	10		0.05
		EMH9FHAT2R	**UMH9NFHATN**	DTC114Y×2	10	47		0.07
		EMH1FHAT2R	**UMH1NFHATN**	DTC124E×2	22	22		0.03
		EMH2FHAT2R	**UMH2NFHATN**	DTC144E×2	47	47		0.03
		**EMH3FHAT2R**	**UMH3NFHATN**	DTC143T×2	4.7	—		0.1
		EMH4FHAT2R	**UMH4NFHATN**	DTC114T×2	10	—		0.1
		EMH15FHAT2R	—	DTC144T×2	47	—		0.1
PNP＋NPN (100mA) Complimentary		**EMD22FHAT2R**	**UMD22NFHATR**	DTA143Z DTC143Z	4.7 4.7	47 47		0.1
		EMD3FHAT2R	**UMD3NFHATR**	DTA114E DTC114E	10 10	10 10		0.05
		EMD9FHAT2R	**UMD9NFHATR**	DTA114Y DTC114Y	10 10	47 47		0.07
		EMD2FHAT2R	**UMD2NFHATR**	DTA124E DTC124E	22 22	22 22		0.03
		EMD12FHAT2R	**UMD12NFHATR**	DTA144E DTC144E	47 47	47 47		0.03
		**EMD6FHAT2R**	**UMD6NFHATR**	DTA143T DTC143T	4.7 4.7	— —		0.1

For pin configuration, refer to the specification.
( ) : ROHM PKG [ ] : JEITA Code
☆ : Under Development

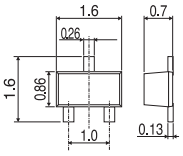
封装

●外部尺寸图 (Unit:mm)

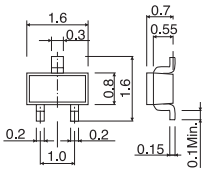
SOT-723 (VMT3) [SC-105AA]



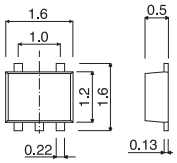
SOT-416FL (EMT3F) [SC-89]



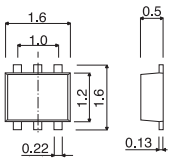
SOT-416 (EMT3) [SC-75A]



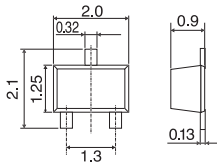
SOT-553 (EMT5) [SC-107BB]



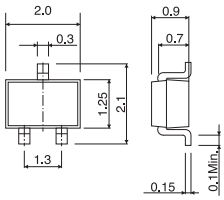
SOT-563 (EMT6) [SC-107C]



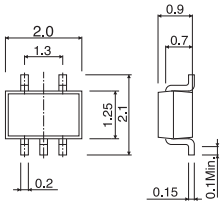
SOT-323FL (UMT3F) [SC-85]



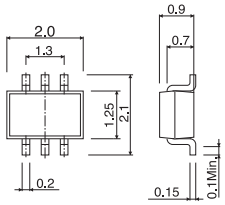
SOT-323 (UMT3) [SC-70]



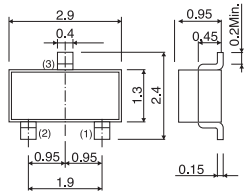
SOT-353 (UMT5) [SC-88A]



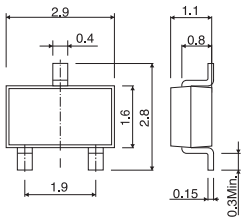
SOT-363 (UMT6) [SC-88]



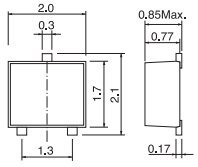
SOT-23 (SST3)



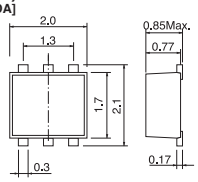
SOT-346 (SMT3) [SC-59]



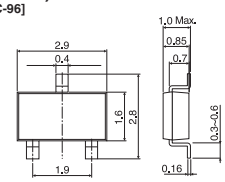
SOT-323T (TUMT3) [SC-113A]



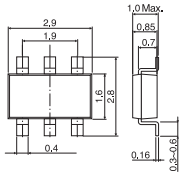
SOT-363T (TUMT6) [SC-113DA]



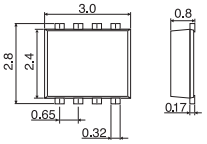
SOT-346T (TSMT3) [SC-96]



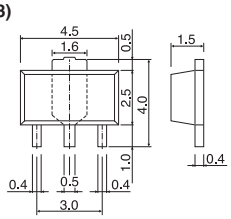
SOT-457T (TSMT6) [SC-95]



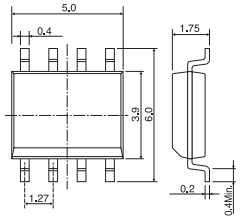
(TSMT8)



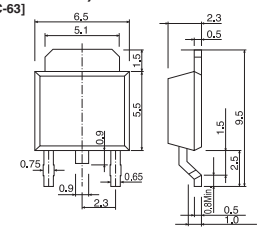
SOT-89 (MPT3) [SC-62]



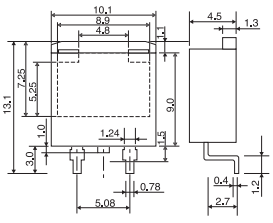
(SOP8)



SOT-428 (CPT3 DPAK) [SC-63]



TO-263 (LPT)



1. ( ) : ROHM PKG [ ] : JEITA Code 2.For details of dimensions, please refer to the technical specifications.

肖特基势垒二极管

●功率肖特基势垒二极管快速参考

V_R (V)	Io (A)	Package							
									
		TO-252 (DPAK)		TO-263S (D2PAK)		TO-220FN (3pin)		TO-220FN (2pin)	
30	5	RB078BM30S	112						
	6	RB095BM-30 New RB098BM-30	1 2						
	10	RB085BM-30 New RBR10BM30A New RB088BM-30	3 4 5	New RBR10NS30A New RB088NS-30	31 34	New RBR10T30A New RB088T-30	65 66		
	15	New RBR15BM30A	6						
	20	New RBR20BM30A	7	New RBR20NS30A New RB218NS-30	32 35	New RBR20T30A New RB218T-30	67 68		
	30			New RBR30NS30A New RB228NS-30	33 36	New RBR30T30A New RB228T-30	69 70		
	40			New RB238NS-30	37	New RB238T-30	71		
40/45	5	RB075BM40S	113						
	6	RB095BM-40 New RB098BM-40	8 9			RB095T-40	72		
	10	RB085BM-40 RBQ10BM45A New RBR10BM40A New RB088BM-40	10 15 11 12	RBQ10NS45A New RB088NS-40 New RBR10NS40A	46 38 39	RB085T-40 RBQ10T45A New RBR10T40A New RB088T-40	73 84 74 75		
	15	RBQ15BM45A New RBR15BM40A	16 13			RB205T-40	76		
	20	RBQ20BM45A New RBR20BM40A	17 14	RBQ20NS45A New RBR20NS40A New RB218NS-40	47 40 41	RB215T-40 RBQ20T45A New RBR20T40A New RB218T-40	77 85 78 79		
	30			RB225NS-40 RBQ30NS45A RBQ30NS45B New RBR30NS40A New RB228NS-40	42 48 114 43 44	RB225T-40 RBQ30T45A New RBR30T40A New RB228T-40	80 86 81 82	RBQ30TB45B	115
	40			New RB238NS-40	45	New RB238T-40	83		
60/65	6	RB095BM-60 New RB098BM-60	18 19			RB095T-60	87		
	10	RBQ10BM65A New RB088BM-60 New RB085BM-60	22 21 20	RBQ10NS65A New RB088NS-60	53 49	RB085T-60 RBQ10T65A New RB088T-60	88 96 89		
	15	RBQ15BM65A	23			RB205T-60	90		
	20	RBQ20BM65A	24	RBQ20NS65A New RB218NS-60	54 50	RB215T-60 RBQ20T65A New RB218T-60	92 97 91		
	30			RBQ30NS65A New RB228NS-60	55 51	RB225T-60 RBQ30T65A New RB228T-60	94 98 93		
	40			New RB238NS-60	52	New RB238T-60	95		
90	6	RB095BM-90	25			RB095T-90	99		
	10	RB085BM-90	26			RB085T-90	100		
	15					RB205T-90	101		
	20					RB215T-90	102		
100	6	New RB098BM100	27						
	10	RB088BM100	28	New RB088NS100	56	New RB088T100	103		
	20			New RB218NS100	57	New RB218T100	104		
	30			RB228NS100 New RB298NS100	58 59	RB228T100 New RB298T100	105 106		
	40			RB238NS100	60	New RB238T100	107		
150	6	New RB098BM150	29						
	10	RB088BM150	30	RB088NS150	61	RB088T150	108		
	20			New RB218NS150	62	New RB218T150	109		
	30			New RB228NS150	63	New RB228T150	110		
	40			RB238NS150	64	New RB238T150	111		

功率肖特基势垒二极管（AEC-Q101）1

Quick Reference No.	Product No. Part No.			Absolute Maximum Ratings (T_C=25℃) V_{RM} (V)	V_R (V)	I_O*1 (A)	I_{FSM} (A) *2 60Hz.1㏈	Electrical Characteristics (T_j=25℃) *2 V_F (V) Max.	I_F (A)	I_R (mA) Max.	V_R (V)	Package	Equivalent Circuit Diagram
1	RB095BM-30	FH	TL	35	30	6	50	0.425	3	0.2	30	TO-252 (DPAK)	
2	New RB098BM-30	FH	TL	35	30	6	50	0.72	3	0.0015	30		
3	RB085BM-30	FH	TL	35	30	10	50	0.48	4	0.3	30		
4	New RBR10BM30A	FH	TL	30	30	10	50	0.55	5	0.1	30		
5	New RB088BM-30	FH	TL	35	30	10	50	0.72	5	0.003	30		
6	New RBR15BM30A	FH	TL	30	30	15	100	0.51	7.5	0.2	30		
7	New RBR20BM30A	FH	TL	30	30	20	100	0.51	10	0.3	30		
8	RB095BM-40	FH	TL	45	40	6	50	0.55	3	0.1	40		
9	New RB098BM-40	FH	TL	45	40	6	50	0.77	3	0.0015	40		
10	RB085BM-40	FH	TL	45	40	10	50	0.55	5	0.2	40		
11	New RBR10BM40A	FH	TL	40	40	10	50	0.62	5	0.12	40		
12	New RB088BM-40	FH	TL	45	40	10	50	0.77	5	0.003	40		
13	New RBR15BM40A	FH	TL	40	40	15	100	0.58	7.5	0.24	40		
14	New RBR20BM40A	FH	TL	40	40	20	100	0.58	10	0.36	40		
15	RBQ10BM45A	FH	TL	45	45	10	50	0.65	5	0.15	45		
16	RBQ15BM45A	FH	TL	45	45	15	100	0.59	7.5	0.3	45		
17	RBQ20BM45A	FH	TL	45	45	20	100	0.59	10	0.45	45		
18	RB095BM-60	FH	TL	60	60	6	50	0.58	3	0.3	60		
19	New RB098BM-60	FH	TL	60	60	6	50	0.83	3	0.0015	60		
20	New RB085BM-60	FH	TL	60	60	10	50	0.58	5	0.3	60		
21	New RB088BM-60	FH	TL	60	60	10	50	0.83	5	0.003	60		
22	RBQ10BM65A	FH	TL	65	65	10	50	0.69	5	0.15	65		
23	RBQ15BM65A	FH	TL	65	65	15	100	0.63	7.5	0.3	65		
24	RBQ20BM65A	FH	TL	65	65	20	100	0.63	10	0.45	65		
25	RB095BM-90	FH	TL	90	90	6	50	0.75	3	0.15	90		
26	RB085BM-90	FH	TL	90	90	10	50	0.83	5	0.15	90		
27	New RB098BM100	FH	TL	110	100	6	50	0.79	3	0.003	100		
28	RB088BM100	FH	TL	100	100	10	50	0.87	5	0.005	100		
29	New RB098BM150	FH	TL	150	150	6	50	0.88	3	0.007	150		
30	RB088BM150	FH	TL	150	150	10	50	0.88	5	0.015	150		
31	New RBR10NS30A	FH	TL	30	30	10	50	0.55	5	0.1	30	TO-263S (D2PAK)	
32	New RBR20NS30A	FH	TL	30	30	20	100	0.55	10	0.2	30		
33	New RBR30NS30A	FH	TL	30	30	30	100	0.55	15	0.3	30		
34	New RB088NS-30	FH	TL	35	30	10	50	0.72	5	0.003	30		
35	New RB218NS-30	FH	TL	35	30	20	100	0.72	10	0.005	30		
36	New RB228NS-30	FH	TL	35	30	30	100	0.72	15	0.01	30		
37	New RB238NS-30	FH	TL	35	30	40	100	0.75	20	0.012	30		
38	New RB088NS-40	FH	TL	45	40	10	50	0.77	5	0.003	40		
39	New RBR10NS40A	FH	TL	40	40	10	50	0.62	5	0.12	40		
40	New RBR20NS40A	FH	TL	40	40	20	100	0.62	10	0.24	40		
41	New RB218NS-40	FH	TL	45	40	20	100	0.77	10	0.005	40		
42	RB225NS-40	FH	TL	40	40	30	50	0.55	15	0.5	40		
43	New RBR30NS40A	FH	TL	40	40	30	100	0.62	15	0.36	40		
44	New RB228NS-40	FH	TL	45	40	30	100	0.77	15	0.01	40		
45	New RB238NS-40	FH	TL	45	40	40	100	0.8	20	0.012	40		
46	RBQ10NS45A	FH	TL	45	45	10	100	0.65	5	0.15	45		
47	RBQ20NS45A	FH	TL	45	45	20	100	0.65	10	0.3	45		
48	RBQ30NS45A	FH	TL	45	45	30	100	0.65	15	0.45	45		
49	New RB088NS-60	FH	TL	60	60	10	50	0.83	5	0.003	60		
50	New RB218NS-60	FH	TL	60	60	20	100	0.83	10	0.005	60		
51	New RB228NS-60	FH	TL	60	60	30	100	0.83	15	0.01	60		
52	New RB238NS-60	FH	TL	60	60	40	100	0.86	20	0.012	60		
53	RBQ10NS65A	FH	TL	65	65	10	100	0.69	5	0.15	65		
54	RBQ20NS65A	FH	TL	65	65	20	100	0.69	10	0.3	65		
55	RBQ30NS65A	FH	TL	65	65	30	100	0.69	15	0.45	65		
56	New RB088NS100	FH	TL	110	100	10	100	0.87	5	0.005	100		
57	New RB218NS100	FH	TL	110	100	20	100	0.87	10	0.007	100		
58	RB228NS100	FH	TL	110	100	30	100	0.87	5	0.005	100		
59	New RB298NS100	FH	TL	110	100	30	100	0.87	15	0.01	100		
60	RB238NS100	FH	TL	110	100	40	100	0.86	20	0.02	100		
61	RB088NS150	FH	TL	150	150	10	50	0.88	5	0.015	150		

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips.
*2:Value/Chip
( )：ROHM PKG

肖特基势垒二极管

功率肖特基势垒二极管（AEC-Q101）2

Quick Reference No.	Product No. Part No.			Absolute Maximum Ratings (Tc=25°C) V_{RM} (V)	V_R (V)	I_o*1 (A)	I_{FSM} (A) *2 60Hz.1cyc	Electrical Characteristics (Tj=25°C) *2 V_F (V) Max.	I_F (A)	I_R (mA) Max.	V_R (V)	Package	Equivalent Circuit Diagram
62	New RB218NS150	FH	TL	150	150	20	100	0.88	10	0.02	150	TO-263S (D2PAK)	
63	New RB228NS150	FH	TL	150	150	30	100	0.88	15	0.025	150		
64	RB238NS150	FH	TL	150	150	40	100	0.87	20	0.03	150		
65	New RBR10T30A	HZ	C9	30	30	10	50	0.55	5	0.1	30	TO-220FN (3pin)	
66	New RB088T-30	HZ	C9	35	30	10	50	0.72	5	0.003	30		
67	New RBR20T30A	HZ	C9	30	30	20	100	0.55	10	0.2	30		
68	New RB218T-30	HZ	C9	35	30	20	100	0.72	10	0.005	30		
69	New RBR30T30A	HZ	C9	30	30	30	100	0.55	15	0.3	30		
70	New RB228T-30	HZ	C9	35	30	30	100	0.72	15	0.01	30		
71	New RB238T-30	HZ	C9	35	30	40	100	0.75	20	0.012	30		
72	RB095T-40	HZ	C9	45	40	6	100	0.55	3	0.1	40		
73	RB085T-40	HZ	C9	45	40	10	100	0.55	5	0.2	40		
74	New RBR10T40A	HZ	C9	40	40	10	50	0.62	5	0.12	40		
75	New RB088T-40	HZ	C9	45	40	10	50	0.77	5	0.003	40		
76	RB205T-40	HZ	C9	45	40	15	100	0.55	7.5	0.3	40		
77	RB215T-40	HZ	C9	45	40	20	100	0.55	10	0.5	40		
78	New RBR20T40A	HZ	C9	40	40	20	100	0.62	10	0.24	40		
79	New RB218T-40	HZ	C9	45	40	20	100	0.77	10	0.005	40		
80	RB225T-40	HZ	C9	40	40	30	100	0.63	15	0.5	40		
81	New RBR30T40A	HZ	C9	40	40	30	100	0.62	15	0.36	40		
82	New RB228T-40	HZ	C9	45	40	30	100	0.77	15	0.01	40		
83	New RB238T-40	HZ	C9	45	40	40	100	0.8	20	0.012	40		
84	RBQ10T45A	HZ	C9	45	45	10	100	0.65	5	0.15	45		
85	RBQ20T45A	HZ	C9	45	45	20	100	0.65	10	0.3	45		
86	RBQ30T45A	HZ	C9	45	45	30	100	0.65	15	0.45	45		
87	RB095T-60	HZ	C9	60	60	6	100	0.58	3	0.1	60		
88	RB085T-60	HZ	C9	60	60	10	100	0.58	5	0.3	60		
89	New RB088T-60	HZ	C9	60	60	10	50	0.83	5	0.003	60		
90	RB205T-60	HZ	C9	60	60	15	100	0.58	7.5	0.6	60		
91	New RB218T-60	HZ	C9	60	60	20	100	0.83	10	0.005	60		
92	RB215T-60	HZ	C9	60	60	20	100	0.58	10	0.6	60		
93	New RB228T-60	HZ	C9	60	60	30	100	0.83	15	0.01	60		
94	RB225T-60	HZ	C9	60	60	30	100	0.63	15	0.6	60		
95	New RB238T-60	HZ	C9	60	60	40	100	0.86	20	0.012	60		
96	RBQ10T65A	HZ	C9	65	65	10	100	0.69	5	0.15	65		
97	RBQ20T65A	HZ	C9	65	65	20	100	0.69	10	0.3	65		
98	RBQ30T65A	HZ	C9	65	65	30	100	0.69	15	0.45	65		
99	RB095T-90	HZ	C9	90	90	6	100	0.75	3	0.15	90		
100	RB085T-90	HZ	C9	90	90	10	100	0.83	5	0.15	90		
101	RB205T-90	HZ	C9	90	90	15	100	0.78	7.5	0.3	90		
102	RB215T-90	HZ	C9	90	90	20	100	0.75	10	0.4	90		
103	New RB088T100	HZ	C9	110	100	10	100	0.87	5	0.005	100		
104	New RB218T100	HZ	C9	110	100	20	100	0.87	10	0.007	100		
105	RB228T100	HZ	C9	110	100	30	100	0.87	5	0.005	100		
106	New RB298T100	HZ	C9	110	100	30	100	0.87	15	0.01	100		
107	New RB238T100	HZ	C9	110	100	40	100	0.86	20	0.02	100		
108	RB088T150	HZ	C9	150	150	10	50	0.88	5	0.015	150		
109	New RB218T150	HZ	C9	150	150	20	100	0.88	10	0.02	150		
110	New RB228T150	HZ	C9	150	150	30	100	0.88	15	0.025	150		
111	New RB238T150	HZ	C9	150	150	40	100	0.87	20	0.03	150		
112	RB078BM30S	FH	TL	35	30	5	50	0.72	5	0.005	30	TO-252 (DPAK)	
113	RB075BM40S	FH	TL	40	40	5	50	0.75	5	0.005	40		
114	RBQ30NS45B	FH	TL	45	45	30	100	0.59	30	0.7	45	TO-263S (D2PAK)	
115	RBQ30TB45B	HZ	C9	45	45	30	100	0.59	30	0.7	45	TO-220FN (2pin)	

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips.
*2:Value/Chip
( ) : ROHM PKG

●中功率肖特基势垒二极管快速参考

V_R (V)	I_O (A)	Package									
		2512 Electrical Characteristics		2514 Electrical Characteristics		3516 Electrical Characteristics		4725 Electrical Characteristics		5026 Electrical Characteristics	
											
		SOD-323FL (UMD2)		(TUMD2M)		SOD-123FL (PMDU)		SOD-128 (PMDTM)		DO-214AC (SMA) (PMDS)	
20	0.5										
30	0.1										
	0.5	New RB550VM-30	1	New RSX051VYM30	3						
	1			New RB550VYM-30 New RSX101VYM30 New RB168VYM-30	4 5 6	RB162MM-30 RB160MM-30 RSX101MM-30 New RBR1MM30A New RB168MM-30	17 18 19 20 21	New RBR1LAM30A New RB168LAM-30	53 54	New RBR1L30A New RB168L-30	87 88
	1.4										
	1.5			New RSX201VYM30	7	RB070MM-30	22				
	2					RB060MM-30 New RBR2MM30A New RBR2MM30B New RB068MM-30	23 24 25 27	New RBR2LAM30A New RB068LAM-30	55 56	RSX205L-30 RSX201L-30 New RBR2L30A New RB068L-30	89 90 91 92
	3					New RBR3MM30A	26	New RBR3LAM30A New RBR3LAM30B New RB058LAM-30	57 58 59	RSX301L-30 RB055L-30 New RBR3L30A New RBR3L30B New RB058L-30	93 94 95 96 97
	5							New RB080LAM-30 New RBR5LAM30A New RBR5LAM30B	60 61 62	RB080L-30 New RBR5L30A New RBR5L30B	98 99 100
40	0.5	New RB560VM-40	2	New RB400VYM-50	8						
	1			New RB160VYM-40 New RB168VYM-40	9 10	RB162MM-40 RB160MM-40 New RB168MM-40 New RBR1MM40A	28 29 30 31	New RBR1LAM40A New RB168LAM-40	63 64	RB162L-40 New RBR1L40A New RB168L-40	101 102 103
	2					RB060MM-40 New RBR2MM40A New RBR2MM40B New RBR2MM40C New RB068MM-40	32 33 34 35 36	New RBR2LAM40A New RB068LAM-40	65 66	RB060L-40 New RBR2L40A RB068L-40	104 105 106
	3					New RBR3MM40A New RBR3MM40B	37 38	New RBR3LAM40A New RBR3LAM40B New RBR3LAM40C New RB058LAM-40	67 68 69 70	RB056L-40 RB055L-40 RB050L-40 New RBR3L40A New RBR3L40B New RBR3L40C RB058L-40	107 108 109 110 111 112 113
	5							New RBR5LAM40A	71	New RBR5L40A	114
60	1			New RB160VYM-60 New RB168VYM-60	11 12	RB162MM-60 RB160MM-60 New RBR1MM60A New RB168MM-60	39 40 41 42	New RBR1LAM60A New RB168LAM-60	72 73	RB162L-60 New RBR1L60A New RB168L-60	115 116 117
	2					RB060MM-60 New RBR2MM60A New RBR2MM60B New RBR2MM60C New RB068MM-60	43 44 45 46 47	New RBR2LAM60A New RBR2LAM60B New RB068LAM-60	74 75 76	New RBR2L60A New RBR2L60B RB068L-60	118 119 120
	3					New RBR3MM60A New RBR3MM60B	48 49	New RBR3LAM60A New RBR3LAM60B New RB058LAM-60	77 78 79	RB055L-60 RB050L-60 New RBR3L60A New RBR3L60B RB058L-60	121 122 123 124 125
	5							New RBR5LAM60A	80	New RBR5L60A	126
90	1					RB160MM-90	50			RB160L-90	127
100	0.7			New RB578VYM100	13						
	1			New RB168VYM100	14	New RB168MM100	51	New RB168LAM100	81	New RB168L100	128
	2							New RB068LAM100	82	RB068L100	129
	3							New RB058LAM100	83		
150	0.5			New RB558VYM150	15						
	1			New RB168VYM150	16	New RB168MM150	52	New RB168LAM150	84	New RB168L150	130
	2							New RB068LAM150	85	New RB068L150	131
	3							New RB058LAM150	86	New RB058L150	132

中功率肖特基势垒二极管 (AEC-Q101) 1

Quick Reference No.	Product No.			Absolute Maximum Ratings (T_C=25°C)				Electrical Characteristics (T_j=25°C)				Package	Equivalent Circuit Diagram
				V_{RM} (V)	V_R (V)	I_O*1 (A)	I_{FSM} (A) 60Hz.1∽	V_F (V) Max.	I_F (A)	I_R (mA) Max.	V_R (V)		
1	New RB550VM-30	FH	TE-17	30	30	0.5	1	0.59	0.5	0.03	30	SOD-323FL (UMD2)	
2	New RB560VM-40	FH	TE-17	40	40	0.5	2	0.64	0.5	0.04	40		
3	New RSX051VYM30	FH	TR	30	30	0.5	5	0.39	0.5	0.2	30		
4	New RB550VYM-30	FH	TR	30	30	1	3	0.52	1	0.03	10		
5	New RSX101VYM30	FH	TR	30	30	1	5	0.47	1	0.2	30		
6	New RB168VYM-30	FH	TR	30	30	1	5	0.73	1	0.0003	30		
7	New RSX201VYM30	FH	TR	30	30	1.5	8	0.46	1.5	0.3	30		
8	New RB400VYM-50	FH	TR	50	40	0.5	3	0.55	0.5	0.05	30		
9	New RB160VYM-40	FH	TR	40	40	1	5	0.55	0.7	0.05	40		
10	New RB168VYM-40	FH	TR	40	40	1	5	0.79	1	0.0005	40	(TUMD2M)	
11	New RB160VYM-60	FH	TR	60	60	1	3	0.67	1	0.4	60		
12	New RB168VYM-60	FH	TR	60	60	1	5	0.82	1	0.001	60		
13	New RB578VYM100	FH	TR	100	100	0.7	5	0.85	0.7	0.0002	100		
14	New RB168VYM100	FH	TR	100	100	1	5	0.84	1	0.0003	100		
15	New RB558VYM150	FH	TR	150	150	0.5	3	0.95	0.5	0.0005	150		
16	New RB168VYM150	FH	TR	150	150	1	5	0.89	1	0.001	150		
17	RB162MM-30	TF	TR	30	30	1	30	0.52	1	0.1	30		
18	RB160MM-30	TF	TR	30	30	1	30	0.48	1	0.05	30		
19	RSX101MM-30	TF	TR	30	30	1	45	0.39	1	0.2	30		
20	New RBR1MM30A	TF	TR	30	30	1	30	0.48	1	0.05	30		
21	New RB168MM-30	TF	TR	30	30	1	20	0.69	1	0.0006	30		
22	RB070MM-30	TF	TR	30	30	1.5	30	0.49	1.5	0.05	30		
23	RB060MM-30	TF	TR	30	30	2	55	0.49	2	0.05	30	SOD-123FL (PMDU)	
24	New RBR2MM30A	TF	TR	30	30	2	30	0.53	2	0.05	30		
25	New RBR2MM30B	TF	TR	30	30	2	30	0.49	2	0.08	30		
26	New RBR3MM30A	TF	TR	30	30	3	30	0.51	3	0.1	30		
27	New RB068MM-30	TF	TR	30	30	2	30	0.7	2	0.0008	30		
28	RB162MM-40	TF	TR	40	40	1	30	0.55	1	0.1	40		
29	RB160MM-40	TF	TR	40	40	1	30	0.51	1	0.03	40		
30	New RB168MM-40	TF	TR	40	40	1	30	0.65	1	0.00055	40		

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips. ( ) : ROHM PKG.

肖特基势垒二极管

中功率肖特基势垒二极管（AEC-Q101）2

Quick Reference No.	Product No.			Absolute Maximum Ratings (Tc=25°C) V_{RM} (V)	V_R (V)	I_o*1 (A)	I_{FSM} (A) 60Hz.1c	Electrical Characteristics (Tj=25°C) V_F (V) Max.	I_F (A)	I_R (mA) Max.	V_R (V)	Package	Equivalent Circuit Diagram
31	New RBR1MM40A	TF	TR	40	40	1	20	0.52	1	0.05	40	SOD-123FL (PMDU)	
32	RB060MM-40	TF	TR	40	40	2	30	0.56	2	0.5	40		
33	New RBR2MM40A	TF	TR	40	40	2	20	0.62	2	0.05	40		
34	New RBR2MM40B	TF	TR	40	40	2	30	0.56	2	0.08	40		
35	New RBR2MM40C	TF	TR	40	40	2	30	0.54	2	0.10	40		
36	New RB068MM-40	TF	TR	40	40	2	30	0.725	2	0.00055	40		
37	New RBR3MM40A	TF	TR	40	40	3	30	0.62	3	0.08	40		
38	New RBR3MM40B	TF	TR	40	40	3	30	0.58	3	0.10	40		
39	RB162MM-60	TF	TR	60	60	1	20	0.65	1	0.1	60		
40	RB160MM-60	TF	TR	60	60	1	30	0.55	1	0.05	60		
41	New RBR1MM60A	TF	TR	60	60	1	20	0.53	1	0.075	60		
42	New RB168MM-60	TF	TR	60	60	1	30	0.68	1	0.0015	60		
43	RB060MM-60	TF	TR	60	60	2	30	0.61	2	0.05	60		
44	New RBR2MM60A	TF	TR	60	60	2	20	0.65	2	0.075	60		
45	New RBR2MM60B	TF	TR	60	60	2	30	0.58	2	0.1	60		
46	New RBR2MM60C	TF	TR	60	60	2	30	0.55	2	0.12	60		
47	New RB068MM-60	TF	TR	60	60	2	30	0.765	2	0.0015	60		
48	New RBR3MM60A	TF	TR	60	60	3	30	0.66	3	0.1	60		
49	New RBR3MM60B	TF	TR	60	60	3	30	0.61	3	0.12	60		
50	RB160MM-90	TF	TR	90	90	1	30	0.73	1	0.1	90		
51	New RB168MM100	TF	TR	100	100	1	30	0.81	1	0.0006	100		
52	New RB168MM150	TF	TR	150	150	1	30	0.84	1	0.004	150		
53	New RBR1LAM30A	TF	TR	30	30	1	30	0.48	1	0.05	30	SOD-128 (PMDTM)	
54	New RB168LAM-30	TF	TR	30	30	1	20	0.69	1	0.0006	30		
55	New RBR2LAM30A	TF	TR	30	30	2	40	0.49	2	0.08	30		
56	New RB068LAM-30	TF	TR	30	30	2	40	0.7	2	0.0008	30		
57	New RBR3LAM30A	TF	TR	30	30	3	30	0.58	3	0.05	30		
58	New RBR3LAM30B	TF	TR	30	30	3	40	0.53	3	0.08	30		
59	New RB058LAM-30	TF	TR	30	30	3	40	0.68	3	0.0025	30		
60	New RB080LAM-30	TF	TR	30	30	5	70	0.51	5	0.15	30		
61	New RBR5LAM30A	TF	TR	30	30	5	50	0.54	5	0.1	30		
62	New RBR5LAM30B	TF	TR	30	30	5	50	0.49	5	0.15	30		
63	New RBR1LAM40A	TF	TR	40	40	1	30	0.52	1	0.05	40		
64	New RB168LAM-40	TF	TR	40	40	1	30	0.69	1	0.0005	40		
65	New RBR2LAM40A	TF	TR	40	40	2	40	0.55	2	0.08	40		
66	New RB068LAM-40	TF	TR	40	40	2	40	0.69	2	0.001	40		
67	New RBR3LAM40A	TF	TR	40	40	3	30	0.69	3	0.05	40		
68	New RBR3LAM40B	TF	TR	40	40	3	40	0.62	3	0.08	40		
69	New RBR3LAM40C	TF	TR	40	40	3	50	0.55	3	0.1	40		
70	New RB058LAM-40	TF	TR	40	40	3	70	0.7	3	0.005	40		
71	New RBR5LAM40A	TF	TR	40	40	5	50	0.53	5	0.2	40		
72	New RBR1LAM60A	TF	TR	60	60	1	30	0.53	1	0.075	60		
73	New RB168LAM-60	TF	TR	60	60	1	30	0.68	1	0.0015	60		
74	New RBR2LAM60A	TF	TR	60	60	2	30	0.65	2	0.075	60		
75	New RBR2LAM60B	TF	TR	60	60	2	50	0.52	2	0.15	60		
76	New RB068LAM-60	TF	TR	60	60	2	40	0.68	2	0.002	60		
77	New RBR3LAM60A	TF	TR	60	60	3	40	0.66	3	0.1	60		
78	New RBR3LAM60B	TF	TR	60	60	3	50	0.56	3	0.15	60		
79	New RB058LAM-60	TF	TR	60	60	3	70	0.64	3	0.004	60		
80	New RBR5LAM60A	TF	TR	60	60	5	50	0.55	5	0.25	60		
81	New RB168LAM100	TF	TR	100	100	1	30	0.81	1	0.0006	100		
82	New RB068LAM100	TF	TR	100	100	2	50	0.84	2	0.015	100		
83	New RB058LAM100	TF	TR	100	100	3	60	0.81	3	0.003	100		
84	New RB168LAM150	TF	TR	150	150	1	30	0.81	1	0.004	150		
85	New RB068LAM150	TF	TR	150	150	2	50	0.81	2	0.003	150		
86	New RB058LAM150	TF	TR	150	150	3	70	0.83	3	0.007	150		
87	New RBR1L30A	DD	TE25	30	30	1	30	0.48	1	0.05	30	DO-214AC (SMA) (PMDS)	
88	New RB168L-30	TF	TE25	30	30	1	20	0.69	1	0.0006	30		
89	RSX205L-30	TF	TE25	30	30	2	60	0.49	2	0.2	30		
90	RSX201L-30	DD	TE25	30	30	2	60	0.44	2	0.15	30		
91	New RBR2L30A	DD	TE25	30	30	2	40	0.49	2	0.08	30		
92	New RB068L-30	DD	TE25	30	30	2	40	0.7	2	0.0008	30		
93	RSX301L-30	DD	TE25	30	30	3	70	0.42	3	0.2	30		
94	RB055L-30	DD	TE25	30	30	3	55	0.55	3	0.05	30		
95	New RBR3L30A	DD	TE25	30	30	3	30	0.58	3	0.05	30		
96	New RBR3L30B	DD	TE25	30	30	3	40	0.53	3	0.08	30		
97	New RB058L-30	DD	TE25	30	30	3	40	0.68	3	0.0025	30		
98	RB080L-30	DD	TE25	30	30	5	70	0.51	5	0.15	30		
99	New RBR5L30A	DD	TE25	30	30	5	50	0.54	5	0.1	30		
100	New RBR5L30B	DD	TE25	30	30	5	50	0.49	5	0.15	30		
101	RB162L-40	TF	TE25	40	40	1	20	0.55	1	0.5	40		
102	New RBR1L40A	DD	TE25	40	40	1	30	0.52	1	0.05	40		
103	New RB168L-40	TF	TE25	40	40	1	30	0.65	1	0.00055	40		
104	RB060L-40	DD	TE25	40	40	2	70	0.5	2	1	40		
105	New RBR2L40A	DD	TE25	40	40	2	40	0.55	2	0.08	40		
106	RB068L-40	DD	TE25	40	40	2	40	0.69	2	0.001	40		
107	RB056L-40	TF	TE25	40	40	3	70	0.67	3	0.05	40		
108	RB055L-40	DD	TE25	40	40	3	40	0.65	3	0.5	40		
109	RB050L-40	DD	TE25	40	40	3	70	0.55	3	1	40		
110	New RBR3L40A	DD	TE25	40	40	3	30	0.69	3	0.05	40		
111	New RBR3L40B	DD	TE25	40	40	3	40	0.62	3	0.08	40		
112	New RBR3L40C	DD	TE25	40	40	3	50	0.55	3	0.1	40		
113	RB058L-40	DD	TE25	40	40	3	70	0.7	3	0.005	40		
114	New RBR5L40A	DD	TE25	40	40	5	50	0.53	5	0.2	40		
115	RB162L-60	TF	TE25	60	60	1	20	0.65	1	0.1	60		
116	New RBR1L60A	DD	TE25	60	60	1	30	0.53	1	0.075	60		
117	New RB168L-60	DD	TE25	60	60	1	30	0.68	1	0.0015	60		
118	New RBR2L60A	DD	TE25	60	60	2	30	0.65	2	0.075	60		
119	New RBR2L60B	DD	TE25	60	60	2	50	0.52	2	0.15	60		
120	RB068L-60	DD	TE25	60	60	2	40	0.7	2	0.002	60		
121	RB055L-60	DD	TE25	60	60	3	70	0.68	3	0.07	60		
122	RB050L-60	DD	TE25	60	60	3	70	0.52	2	0.1	60		
123	New RBR3L60A	DD	TE25	60	60	3	40	0.66	3	0.1	60		
124	New RBR3L60B	DD	TE25	60	60	3	50	0.56	3	0.15	60		
125	RB058L-60	DD	TE25	60	60	3	70	0.64	3	0.004	60		
126	New RBR5L60A	DD	TE25	60	60	5	50	0.55	5	0.25	60		
127	RB160L-90	TF	TE25	95	90	1	30	0.73	1	0.1	90		
128	New RB168L100	DD	TE25	100	100	1	30	0.81	1	0.0006	100		
129	RB068L100	DD	TE25	100	100	2	60	0.79	2	0.015	100		
130	New RB168L150	DD	TE25	150	150	1	30	0.84	1	0.004	150		
131	New RB068L150	DD	TE25	150	150	2	50	0.81	2	0.003	150		
132	New RB058L150	DD	TE25	150	150	3	50	0.85	3	0.003	150		

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips. ( ) : ROHM PKG.

●小信号肖特基势垒二极管快速参考

V_R (V)	I_O (mA)	Package: 1006 Size / SOD-923 (VMN2)		1406 Size / SOD-723 (VMD2)		1608 Size / SOD-523 (EMD2)	
30	30	RB751CS-40	3	RB751G-40	6	RB751SM-40	17
	100	RB521CS-30 RB520CS-30	1 2	RB521G-30 RB520G-30	5 4	New RB510SM-30 New RB511SM-30 New RB500SM-30 New RB501SM-30	9 10 11 12
	200					RB520SM-30 RB521SM-30 RB531SM-30 RB530SM-30	13 14 16 15
40	30						
	100			New RB520G-40 New RB521G-40	7 8	New RB510SM-40 New RB511SM-40 New RB530SM-40 New RB531SM-40	18 19 20 21
	200					New RB540SM-40 New RB541SM-40 RB521SM-40 RB520SM-40	22 23 25 24
60	100					New RB521SM-60	26

V_R (V)	I_O (mA)	Package: 2512 Size / SOD-323FL (UMD2)		1212 Size / SOT-723 (VMD3)		1616 Size / SOT-416 (EMD3)		1616 Size / SOT-416FL (EMD3F)		1616 Size / SOT-543 (EMD4)		2120 Size / SOT-323 (UMD3)		2120 Size / SOT-323FL (UMD3F)	
30	30	RB751VM-40	35												
	100	New RB511VM-30 New RB531VM-30 RB530VM-30 New RB510VM-30	28 30 29 27			RB557W RB558W RB548W	56 60 61	RB558WM	63	RB481Y RB480Y	76 77				
	200	New RB520VM-30 New RB521VM-30 New RB540VM-30 New RB541VM-30	31 32 33 34												
40	30			RB715Z	48	RB715W RB706W-40	49 62								
	100	New RB510VM-40 New RB511VM-40 RB530VM-40 RB531VM-40 RB500VM-40 RB501VM-40	36 37 38 39 40 41									RB715F RB717F RB706F-40	50 57 64	RB715UM	51
	200	New RB540VM-40 New RB541VM-40 New RB520VM-40 New RB521VM-40 New RB550VM-40 New RB551VM-40	42 43 44 45 46 47							RB481Y-40 RB480Y-40	78 79	RB451F RB450F	68 69		
90	100									RB481Y-90 RB480Y-90	80 81				

V_R (V)	I_O (mA)	Package: 2120 Size / SOT-343 (UMD4)		2120 Size / SOT-363 (UMD6)		2924 Size / SOT-23 (SSD3)		2928 Size / SOT-346 (SMD3)		2928 Size / SOT-25 (SMD5)		2928 Size / SOT-25T (TSMD5)		2928 Size / SOT-457 (SMD6)	
20	500							RB411D	74						
25	400							RB495D	53						
30	30													RB731U	91
	100			RB531XN RB530XN RB541XN	87 88 89	New BAT54SHM New BAT54CHM New BAT54AHM New BAT54HM	65 52 58 70								
	1,000											RB552EA	85		
	1,400											RB550EA	86		
40	30	RB481K	82	RB731XN	90			RB705D RB706D-40	54 66						
	100							RB425D RB421D RB420D	55 72 73	RB471E	84				
	200	RB480K	83			New BAS40-06HM New BAS40-04HM New BAS40HM	59 67 71								
	500							RB400D	75						

肖特基势垒二极管

小信号肖特基势垒二极管（AEC-Q101）1

Quick Reference No.	Product No.				Absolute Maximum Ratings (T_C=25℃)				Electrical Characteristics (T_j=25℃) *2				Package	Equivalent Circuit Diagram
					V_{RM} (V)	V_R (V)	I_O*1 (mA)	I_{FSM} (A) *2 60Hz.1㏈	V_F (V) Max.	I_F (mA)	I_R (μA) Max.	V_R (V)		
1	RB521CS-30	FH	T2RA	—	30	100	0.5	0.35	10	10	10	SOD-923 (VMN2)	
2	RB520CS-30	FH	T2RA	—	30	100	0.5	0.45	10	0.5	10		
3	RB751CS-40	FH	T2RA	40	30	30	0.2	0.37	1	0.5	30		
4	RB520G-30	FH	T2R	—	30	100	0.5	0.45	10	0.5	10	SOD-723 (VMD2)	
5	RB521G-30	FH	T2R	—	30	100	0.5	0.35	10	10	10		
6	RB751G-40	FH	T2R	40	30	30	0.2	0.37	1	0.5	30		
7	New RB520G-40	FH	T2R	40	40	100	1	0.71	100	15	40		
8	New RB521G-40	FH	T2R	40	40	100	1	0.61	100	100	40		
9	New RB510SM-30	FH	T2R	30	30	100	0.5	0.46	10	0.3	10	SOD-523 (EMD2)	
10	New RB511SM-30	FH	T2R	30	30	100	0.5	0.37	10	7	10		
11	New RB500SM-30	FH	T2R	30	30	100	1	0.45	10	0.5	10		
12	New RB501SM-30	FH	T2R	30	30	100	1	0.35	10	10	10		
13	RB520SM-30	FH	T2R	—	30	200	1	0.58	200	1	10		
14	RB521SM-30	FH	T2R	—	30	200	1	0.47	200	30	10		
15	RB530SM-30	FH	T2R	30	30	200	1	0.45	10	0.5	10		
16	RB531SM-30	FH	T2R	30	30	200	1	0.35	10	10	10		
17	RB751SM-40	FH	T2R	40	30	30	0.2	0.37	1	0.5	30		
18	New RB510SM-40	FH	T2R	40	40	100	0.5	0.48	10	2	40		
19	New RB511SM-40	FH	T2R	40	40	100	0.5	0.41	10	25	40		
20	New RB530SM-40	FH	T2R	40	40	100	1	0.71	100	15	40		
21	New RB531SM-40	FH	T2R	40	40	100	1	0.61	100	100	40		
22	New RB540SM-40	FH	T2R	40	40	200	1	0.71	100	15	40		
23	New RB541SM-40	FH	T2R	40	40	200	1	0.61	100	100	40		
24	RB520SM-40	FH	T2R	40	40	200	1	0.55	100	10	40		
25	RB521SM-40	FH	T2R	45	40	200	1	0.45	100	90	40		
26	New RB521SM-60	FH	T2R	60	60	200	1	0.60	200	100	60		
27	New RB510VM-30	FH	TE-17	30	30	100	0.5	0.46	10	0.3	10	SOD-323FL (UMD2)	
28	New RB511VM-30	FH	TE-17	30	30	100	0.5	0.37	10	7	10		
29	RB530VM-30	FH	TE-17	30	30	100	0.5	0.45	10	0.5	10		
30	New RB531VM-30	FH	TE-17	30	30	100	1	0.35	10	10	10		
31	New RB520VM-30	FH	TE-17	30	30	200	1	0.58	200	1	10		
32	New RB521VM-30	FH	TE-17	30	30	200	1	0.47	200	30	10		
33	New RB540VM-30	FH	TE-17	30	30	200	1	0.45	10	0.5	10		
34	New RB541VM-30	FH	TE-17	30	30	200	1	0.35	10	30	10		
35	RB751VM-40	FH	TE-17	40	30	30	0.2	0.37	1	0.5	30		
36	New RB510VM-40	FH	TE-17	40	40	100	0.1	0.48	10	2	40		
37	New RB511VM-40	FH	TE-17	40	40	100	0.1	0.41	10	25	40		
38	RB530VM-40	FH	TE-17	40	40	100	1	0.71	100	15	40		
39	RB531VM-40	FH	TE-17	40	40	100	1	0.61	100	100	40		
40	RB500VM-40	FH	TE-17	45	40	100	1	0.45	10	1	10		
41	RB501VM-40	FH	TE-17	45	40	100	1	0.55	100	30	10		
42	New RB540VM-40	FH	TE-17	40	40	200	1	0.71	100	15	40		
43	New RB541VM-40	FH	TE-17	40	40	200	1	0.61	100	100	40		
44	New RB520VM-40	FH	TE-17	40	40	200	1	0.55	100	10	40		
45	New RB521VM-40	FH	TE-17	40	40	200	1	0.54	200	90	40		
46	New RB550VM-40	FH	TE-17	40	40	200	1	0.51	200	40	40		
47	New RB551VM-40	FH	TE-17	40	40	200	1	0.43	200	300	40		
48	RB715Z	FH	T2L	40	40	30	0.2	0.37	1	1	10	SOT-723 (VMD3)	
49	RB715W	FH	TL	40	40	30	0.2	0.37	1	1	10	SOT-416 (EMD3)	
50	RB715F	FH	T106	40	40	30	0.2	0.37	1	1	10	SOT-323 (UMD3)	
51	RB715UM	FH	TL	40	40	30	0.2	0.37	1	1	10	SOT-323FL (UMD3F)	
52	New BAT54CHM	FH	T116	30	30	200 *2	0.6	0.8	100	2	25	SOT-23 (SSD3)	
53	RB495D	FH	T146	40	25	400	2	0.5	200	70	25	SOT-346 (SMD3)	
54	RB705D	FH	T146	40	40	30	0.2	0.37	1	1	10		
55	RB425D	FH	T146	40	40	100	1	0.55	100	30	10		
56	RB557W	FH	TL	—	30	100 *2	0.5	0.35	10	10	10	SOT-416 (EMD3)	
57	RB717F	FH	T106	40	40	30 *2	0.2	0.37	1	1	10	SOT-323 (UMD3)	
58	New BAT54AHM	FH	T116	30	30	200 *2	0.6	0.8	100	2	25	SOT-23 (SSD3)	
59	New BAS40-06HM	FH	T116	40	40	200 *2	0.6	0.38	0.001	0.001	30		
60	RB558W	FH	TL	—	30	100 *2	0.5	0.35	10	10	10	SOT-416 (EMD3)	
61	RB548W	FH	TL	—	30	100 *2	0.5	0.45	10	0.5	10		
62	RB706W-40	FH	TL	45	40	30	0.2	0.37	1	1	10		
63	RB558WM	FH	TL	—	30	100 *2	0.5	0.49	100	10	10	SOT-416FL (EMD3F)	
64	RB706F-40	FH	T106	45	40	30 *2	0.2	0.37	1	1	10	SOT-323 (UMD3)	
65	New BAT54SHM	FH	T116	30	30	200	0.6	0.8	100	2	25	SOT-23 (SSD3)	
66	RB706D-40	FH	T146	45	40	30	0.2	0.37	1	1	10	SOT-346 (SMD3)	
67	New BAS40-04HM	FH	T116	40	40	200 *2	0.6	0.38	0.001	0.001	30	SOT-23 (SSD3)	
68	RB451F	FH	T106	40	40	100	1	0.55	100	30	10	SOT-323 (UMD3)	
69	RB450F	FH	T106	45	40	100	1	0.45	10	1	10		
70	New BAT54HM	FH	T116	30	30	200 *2	0.6	0.8	100	2	25	SOT-23 (SSD3)	
71	New BAS40HM	FH	T116	40	40	200 *2	0.6	0.38	0.001	0.001	30		
72	RB421D	FH	T146	40	40	100	1	0.55	100	30	10	SOT-346 (SMD3)	
73	RB420D	FH	T146	40	40	100	1	0.45	10	1	10		
74	RB411D	FH	T146	40	20	500	3	0.5	500	30	10	SOT-346 (SMD3)	
75	RB400D	FH	T146	40	40	500	3	0.55	500	50	30		
76	RB481Y	FH	T2R	—	30	100 *2	1	0.43	100	30	10	SOT-543 (EMD4)	
77	RB480Y	FH	T2R	—	30	100 *2	1	0.53	100	1	10		
78	RB481Y-40	FH	T2R	40	40	200	1	0.45	100	90	40		
79	RB480Y-40	FH	T2R	40	40	200	1	0.55	100	10	40		
80	RB481Y-90	FH	T2R	90	90	100 *2	1	0.61	100	100	90		
81	RB480Y-90	FH	T2R	90	90	100 *2	1	0.69	100	5	90		
82	RB481K	FH	TL	30	30	200 *2	1	0.5	200	30	10	SOT-343 (UMD4)	
83	RB480K	FH	TL	45	40	100 *2	1	0.6	100	1	10		

*1:Io:Average output current per chip. In case of 1,2 or 3 chip diodes. Io indicates average output current of 1,2or 3 chips. *2:Value/Chip （）：ROHM PKG.

小信号肖特基势垒二极管（AEC-Q101）2

Quick Reference No.	Product No.			Absolute Maximum Ratings (Tc=25°C) V_{RM} (V)	V_R (V)	I_O*1 (mA)	I_{FSM} (A) *2 60Hz.1cyc	Electrical Characteristics (Tj=25°C) *2 V_F (V) Max.	I_F (mA)	I_R (μA) Max.	V_R (V)	Package	Equivalent Circuit Diagram
84	**RB471E**	FH	T148	40	40	100 *2	1	0.55	100	30	10	SOT-25 (SMD5)	
85	**RB552EA**	FH	TR	30	30	1000	7	0.59	500	8	15	SOT-25T (TSMD5)	
86	**RB550EA**	FH	TR	30	30	1400	15	0.49	700	50	30		
87	**RB531XN**	FH	TR	—	30	100 *2	1	0.43	100	30	10	SOT-363 (UMD6)	
88	**RB530XN**	FH	TR	—	30	100 *2	1	0.53	100	1	10		
89	**RB541XN**	FH	TR	—	30	100	0.5	0.35	10	10	10		
90	**RB731XN**	FH	TR	40	40	30	0.2	0.37	1	1	10		
91	**RB731U**	FH	T108	40	40	30	0.2	0.37	1	1	10	SOT-457 (SMD6)	

*1:Io:Average output current per chip. In case of 1,2 or 3 chip diodes. Io indicates average output current of 1,2or 3 chips. *2:Value/Chip ( ) : ROHM PKG.

整流二极管

功率整流二极管

功率整流二极管

Quick Reference No.	Product No. Part No.			Absolute Maximum Ratings (Tc=25°C) V_{RM} (V)	V_R (V)	I_O (A)	I_{FSM} (A) 60Hz.1cyc	Electrical Characteristics (Tj=25°C) V_F (V) Max.	I_F (A)	I_R (μA) Max.	V_R (V)	trr (ns) Max.	I_F (mA)	I_R (mA)	Package	Equivalent Circuit Diagram
—	New **RR601BM4S**	FH	TL	400	400	6	40	1.1	6	1	400	—	—	—	TO-252 (DPAK)	

●整流二极管快速参考

	V_{RM} (V)	Io (A)	Package 2514 Size (TUMD2SM)		3516 Size SOD-123FL (PMDU)		5026 Size DO-214AC (SMA) (PMDS)		2928 Size SOT-25T (TSMD5)	
General Purpose Rectifier Diodes	400	0.2	**RRE02VTM4S**	1						
		0.4							**RRE04EA4D**	10
		0.5							**RR274EA-400**	11
		0.7	**RRE07VTM4S**	2	**RR264MM-400**	5				
		1					**1SR154-400**	6		
		2					**RR2L4S**	7		
	600	0.2	**RRE02VTM6S**	3						
		0.4							New **RRE04EA6D**	12
		0.7	**RRE07VTM6S**	4						
		1					**1SR154-600**	8		
		2					**RR2L6S**	9		
High-speed Rectifier Diodes	400	1					**1SR156-400**	13		

整流二极管

一般整流二极管

Quick Reference No.	Product No.			Absolute Maximum Ratings (Tc=25°C) V_{RM} (V)	V_R (V)	I_O (A)	I_{FSM} (A) 60Hz.1cyc	Electrical Characteristics (Tj=25°C) *2 V_F (V) Max.	I_F (A)	I_R (μA) Max.	V_R (V)	trr (ns) Max.	I_F (mA)	I_R (mA)	Package	Equivalent Circuit Diagram
1	**RRE02VTM4S**	FH	TR	400	400	0.2	1	1.1	0.2	1	400	—	—	—	(TUMD2SM)	
2	**RRE07VTM4S**	FH	TR	400	400	0.7	2	1.1	0.7	1	400	—	—	—		
3	**RRE02VTM6S**	FH	TR	600	600	0.2	1	1.1	0.2	1	600	—	—	—		
4	**RRE07VTM6S**	FH	TR	600	600	0.7	2	1.1	0.7	1	600	—	—	—		
5	**RR264MM-400**	TF	TR	400	400	0.7	25	1.1	0.7	10	400	—	—	—	SOD-123FL (PMDU)	
6	**1SR154-400**	TF	TE25	500	400	1	30	1.1	1	10	400	—	—	—	DO-214AC (SMA) (PMDS)	
7	**RR2L4S**	DD	TE25	400	400	2	50	1.1	2	10	400	—	—	—		
8	**1SR154-600**	TF	TE25	750	600	1	30	1.1	1	10	600	—	—	—		
9	**RR2L6S**	DD	TE25	600	600	2	50	1.1	2	10	600	—	—	—		
10	**RRE04EA4D**	FH	TR	400	400	0.4 *1	2	1.1	0.2	1	400	—	—	—	SOT-25T (TSMD5)	
11	**RR274EA-400**	FH	TR	400	400	1 *1	8	1.1	0.5	10	400	—	—	—		
12	New **RRE04EA6D**	FH	TR	600	600	0.4 *1	2	1.1	0.2	1	600	—	—	—		
快速整流二极管																
13	**1SR156-400**	TF	TE25	500	400	1	20	1.3	0.8	10	400	400	10	10	DO-214AC (SMA) (PMDS)	

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips. *2:Value/Chip *3 IFRM guarantees: discharge waveform t=500us (1/2peak) , 1pulse/4s, Rth<80°C /W
( ) : ROHM PKG.

快速恢复二极管

●功率快速恢复二极管快速参考

V_R (V)	I_O (A)	Surface Mount Type				Leaded Type							
													
		TO-252 (DPAK)		TO-263S (D2PAK)		TO-220FN (2pin)		TO-220FN (3pin)		TO-220NFM (2pin)		TO-220NFM (3pin)	
200	3	RF301BM2S RFN3BM2S	17 18										
	5	RF501BM2S RFN5BM2S	19 20										
	6	RF601BM2D RFN6BM2D	1 2					RF601T2D RFN6T2D	8 9				
	10			RF1001NS2D	3			RF1001T2D RFN10T2D	10 11				
	16			RF1601NS2D	4			RF1601T2D RFN16T2D	12 13				
	20			RF2001NS2D	5			RF2001T2D RFN20T2D	14 15				
300	20			RF2001NS3D RF1501NS3S	6 29			RF2001T3D	16	RF1501TF3S	53		
350	5	RFN5BM3S	21										
	10	RFN10BM3S	27	RFN10NS3S	30								
	20			RFN20NS3S RFUH20NS3S RFUH25NS3S	31 32 33	RFUH20TB3S RFUH25TB3S	47 48						
430	10			RFN10NS4S RFUH10NS4S	34 35	RFN10TB4S RFUH10TB4S	49 50			RFUS10TF4S	54		
	20			RFN20NS4S RFUS20NS4S RFUH20NS4S	36 37 38	RFN20TB4S RFUH20TB4S	51 52	RF2001T4S	44			RFUS20TM4S	45
600	3	RF305BM6S RFN3BM6S	22 23										
	5	RF505BM6S RFN5BM6S RFNL5BM6S	24 25 26							RF505TF6S RFN5TF6S RFUH5TF6S	55 56 57		
	10	RFN10BM6S	28	RFN10NS6S RFUH10NS6S	39 40					RF1005TF6S RFN10TF6S RFUH10TF6S	58 59 60		
	20			RFN20NS6S RFUH20NS6S RFUS20NS6S	41 42 43					RFN20TF6S RFUH20TF6S RFUS20TF6S	61 62 63	RFUS20TM6S	46
800	5									RFN5TF8S	64		
	10			New RFN10NS8D	7								

功率快速恢复二极管（AEC-Q101）

Quick Reference No.	Product No. Part No.			Absolute Maximum Ratings (T_C=25°C) V_{RM} (V)	V_R (V)	I_O (A)	I_{FSM} (A) 60Hz.1cyc	Electrical Characteristics (T_j=25°C) *2 V_F (V) Max.	I_F (A)	I_R (μA) Max.	V_R (V)	trr (ns) Max.	I_F (A)	I_R (A)	Package	Equivalent Circuit Diagram
1	RF601BM2D	FH	TL	200	200	6*1	60	0.93	3	10	200	25	0.5	1	TO-252（DPAK）	
2	RFN6BM2D	FH	TL	200	200	6*1	40	0.98	3	10	200	25	0.5	1		
3	RF1001NS2D	FH	TL	200	200	10*1	80	0.93	5	10	200	25	0.5	1	TO-263S（D2PAK）	
4	RF1601NS2D	FH	TL	200	200	16*1	100	0.93	8	10	200	30	0.5	1		
5	RF2001NS2D	FH	TL	200	200	20*1	100	0.93	10	10	200	30	0.5	1		
6	RF2001NS3D	FH	TL	350	300	20*1	100	1.3	10	10	300	25	0.5	1		
7	New RFN10NS8D	FH	TL	800	800	10*1	60	2.1	5	10	800	40	0.5	1		
8	RF601T2D	HZ	C9	200	200	6*1	60	0.93	3	10	200	25	0.5	1	TO-220FN（3pin）	
9	RFN6T2D	HZ	C9	200	200	6*1	40	0.98	3	10	200	25	0.5	1		
10	RF1001T2D	HZ	C9	200	200	10*1	80	0.93	5	10	200	30	0.5	1		
11	RFN10T2D	HZ	C9	200	200	10*1	80	0.98	5	10	200	25	0.5	1		
12	RF1601T2D	HZ	C9	200	200	16*1	100	0.93	8	10	200	30	0.5	1		
13	RFN16T2D	HZ	C9	200	200	16*1	100	0.98	8	10	200	30	0.5	1		
14	RF2001T2D	HZ	C9	200	200	20*1	100	0.93	10	10	200	30	0.5	1		
15	RFN20T2D	HZ	C9	200	200	20*1	100	0.98	10	10	200	30	0.5	1		
16	RF2001T3D	HZ	C9	350	300	20*1	100	1.3	10	10	300	25	0.5	1		
17	RF301BM2S	FH	TL	200	200	3	40	0.93	3	10	200	25	0.5	1	TO-252（DPAK）	
18	RFN3BM2S	FH	TL	200	200	3	40	0.98	3	10	200	25	0.5	1		
19	RF501BM2S	FH	TL	200	200	5	40	0.92	5	1	200	25	0.5	1		
20	RFN5BM2S	FH	TL	200	200	5	40	0.98	5	10	200	25	0.5	1		
21	RFN5BM3S	FH	TL	350	350	5	50	1.5	5	10	350	30	0.5	1		
22	RF305BM6S	FH	TL	600	600	3	50	1.7	3	10	600	30	0.5	1		
23	RFN3BM6S	FH	TL	600	600	3	20	1.55	3	10	600	30	0.5	1		
24	RF505BM6S	FH	TL	600	600	5	50	1.7	5	10	600	30	0.5	1		
25	RFN5BM6S	FH	TL	600	600	5	30	1.55	5	10	600	50	0.5	1		
26	RFNL5BM6S	FH	TL	600	600	5	50	1.3	5	10	600	60	0.5	1		
27	RFN10BM3S	FH	TL	350	350	10	80	1.5	10	10	350	30	0.5	1		
28	RFN10BM6S	FH	TL	600	600	10	100	1.55	10	10	600	50	0.5	1		
29	RF1501NS3S	FH	TL	350	300	20	100	1.5	20	10	300	30	0.5	1	TO-263S（D2PAK）	
30	RFN10NS3S	FH	TL	350	350	10	100	1.5	10	10	350	30	0.5	1		
31	RFN20NS3S	FH	TL	350	350	20	100	1.35	20	10	350	35	0.5	1		
32	RFUH20NS3S	FH	TL	350	350	20	100	1.5	20	10	350	25	0.5	1		
33	RFUH25NS3S	FH	TL	350	350	20	100	1.45	20	10	350	30	0.5	1		
34	RFN10NS4S	FH	TL	430	430	10	80	1.55	10	10	430	30	0.5	1		
35	RFUH10NS4S	FH	TL	430	430	10	80	1.7	10	10	430	25	0.5	1		
36	RFN20NS4S	FH	TL	430	430	20	100	1.55	20	10	430	30	0.5	1		
37	RFUS20NS4S	FH	TL	430	430	20	100	1.6	20	10	430	35	0.5	1		
38	RFUH20NS4S	FH	TL	430	430	20	100	1.7	20	10	430	25	0.5	1		
39	RFN10NS6S	FH	TL	600	600	10	100	1.55	10	10	600	50	0.5	1		
40	RFUH10NS6S	FH	TL	600	600	10	60	2.8	10	10	600	25	0.5	1		
41	RFN20NS6S	FH	TL	600	600	20	100	1.55	20	10	600	60	0.5	1		
42	RFUH20NS6S	FH	TL	600	600	20	100	2.8	20	10	600	35	0.5	1		
43	RFUS20NS6S	FH	TL	600	600	20	100	2.8	20	10	600	35	0.5	1		
44	RF2001T4S	HZ	C9	430	400	20	100	1.6	20	10	400	30	0.5	1	TO-220FN（3pin）	
45	RFUS20TM4S	FH	C9	430	430	20	100	1.6	20	10	430	35	0.5	1	TO-220NFM（3pin）	
46	RFUS20TM6S	FH	C9	600	600	20	100	2.8	20	10	600	35	0.5	1		
47	RFUH20TB3S	HZ	C9	350	350	20	100	1.5	20	10	350	25	0.5	1	TO-220FN（2pin）	
48	RFUH25TB3S	HZ	C9	350	350	20	100	1.45	20	10	350	30	0.5	1		
49	RFN10TB4S	HZ	C9	430	430	10	80	1.55	10	10	430	30	0.5	1		
50	RFUH10TB4S	HZ	C9	430	430	10	80	1.7	10	10	430	25	0.5	1		
51	RFN20TB4S	HZ	C9	430	430	20	100	1.55	20	10	430	30	0.5	1		
52	RFUH20TB4S	HZ	C9	430	430	20	100	1.7	20	10	430	25	0.5	1		
53	RF1501TF3S	FH	C9	350	300	20	100	1.5	20	10	300	30	0.5	1	TO-220NFM（2pin）	
54	RFUS10TF4S	FH	C9	430	430	10	80	1.7	10	10	430	30	0.5	1		
55	RF505TF6S	FH	C9	600	600	5	80	1.7	5	10	600	30	0.5	1		
56	RFN5TF6S	FH	C9	600	600	5	30	1.55	5	10	600	50	0.5	1		
57	RFUH5TF6S	FH	C9	600	600	5	30	2.8	5	10	600	25	0.5	1		
58	RF1005TF6S	FH	C9	600	600	10	100	1.7	10	10	600	40	0.5	1		
59	RFN10TF6S	FH	C9	600	600	10	100	1.55	10	10	600	50	0.5	1		
60	RFUH10TF6S	FH	C9	600	600	10	60	2.8	10	10	600	25	0.5	1		
61	RFN20TF6S	FH	C9	600	600	20	100	1.55	20	10	600	60	0.5	1		
62	RFUH20TF6S	FH	C9	600	600	20	100	2.8	20	10	600	35	0.5	1		
63	RFUS20TF6S	FH	C9	600	600	20	100	2.8	20	10	600	35	0.5	1		
64	RFN5TF8S	FH	C9	800	800	5	60	2.1	5	10	800	40	0.5	1		

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips. *2:Value/Chip.

快速恢复二极管

●快速恢复二极管快速参考

V_{RM} (V)	Io (A)	Surface Mount Type													
		1608 Size SOD-523 (EMD2)		2512 Size SOD-323FL (UMD2)		2514 Size (TUMD2M)		3516 Size SOD-123FL (PMDU)		4725 Size SOD-128 (PMDTM)		5026 Size DO-214AC (PMDS)		2928 Size SOT-457T (TSMD6)	
100	0.5					**RF05VYM1S**	3								
200	0.1			**RF01VM2S**	2										
	0.4													**RF04UA2D**	19
	0.5					**RF05VYM2S**	4								
	0.7							**RF071MM2S**	5						
	0.8							**RF081MM2S**	6						
	1									New **RF101LAM2S**	7	**RF101L2S** 9 **RF081L2S** 10			
	2									New **RF201LAM2S**	8	**RF201L2S**	11		
400	0.7											**RF071L4S**	12		
	1											**RF101L4S**	13		
	1.5											**RF201L4S** 14 **RFN2L4S** 15			
450	0.1	**RFU01SM4S**	1												
600	0.8											**RFN1L6S**	16		
	1.5											**RFN2L6S**	17		
700	0.8											**RFN1L7S**	18		

快速恢复二极管（AEC-Q101）

Quick Reference No.	Product No.			Absolute Maximum Ratings (T_C=25°C) V_{RM} (V)	V_R (V)	Io (A)	I_{FSM} (A) 60Hz.1㏄	Electrical Characteristics (T_j=25°C) *2 V_F (V) Max.	I_F (A)	I_R (μA) Max.	V_R (V)	trr (ns) Max.	I_F (A)	I_R (A)	Package	Equivalent Circuit Diagram
1	**RFU01SM4S**	FH	T2R	450	450	0.1	1	1.8	0.1	10	450	35	0.1	0.1	SOD-523 (EMD2)	
2	**RF01VM2S**	FH	TE-17	250	250	0.1	1	1.2	0.1	10	250	50	*		SOD-323FL (UMD2)	
3	**RF05VYM1S**	FH	TR	100	100	0.5	6	0.98	0.5	10	100	25	0.5	1	(TUMD2M)	
4	**RF05VYM2S**	FH	TR	200	200	0.5	6	0.98	0.5	10	200	25	0.5	1		
5	**RF071MM2S**	TF	TR	200	200	0.7	15	0.85	0.7	10	200	25	0.5	1	SOD-123FL (PMDU)	
6	**RF081MM2S**	TF	TR	200	200	0.8	20	0.95	0.8	10	200	25	0.5	1		
7	New **RF101LAM2S**	TF	TR	200	200	1	20	0.87	1	10	200	25	0.5	1	SOD-128 (PMDTM)	
8	New **RF201LAM2S**	TF	TR	200	200	2	20	0.87	2	10	200	25	0.5	1		
9	**RF101L2S**	TF	TE25	200	200	1	20	0.87	1	10	200	25	0.5	1	DO-214AC (SMA) (PMDS)	
10	**RF081L2S**	TF	TE25	200	200	1.1	25	0.98	1	10	200	25	0.5	1		
11	**RF201L2S**	TF	TE25	200	200	2	20	0.87	2	10	200	25	0.5	1		
12	**RF071L4S**	TF	TE25	400	400	1	15	1.25	0.7	10	400	25	0.5	1		
13	**RF101L4S**	TF	TE25	400	400	1	25	1.25	1	10	400	25	0.5	1		
14	**RF201L4S**	TF	TE25	400	400	1.5	50	1.2	1.5	1	400	30	0.5	1		
15	**RFN2L4S**	DD	TE25	400	400	1.5	50	1.2	1.5	1	400	30	0.5	1		
16	**RFN1L6S**	DD	TE25	600	600	0.8	15	1.45	0.8	1	600	35	0.5	1		
17	**RFN2L6S**	DD	TE25	600	600	1.5	40	1.55	1.5	1	600	35	0.5	1		
18	**RFN1L7S**	DD	TE25	700	700	0.8	15	1.5	0.8	1	700	80	0.5	1		
19	**RF04UA2D**	FH	TR	200	200	0.4*1	1	0.98	0.2	10	200	25	0.5	1	SOT-457T (TSMD6)	

*1:Io:Average output current per chip. In case of 2 chip diodes. Io indicates average output current of 2 chips. *2:Value/Chip.
*V_R=6V, I_F=10mA, I_{rr}=0.1I_R
( ) : ROHM PKG.

齐纳二极管（包括TVS）

2引脚（单）4引脚（双）齐纳二极管 （AEC-Q101）

Package	Surface Mount Type																	
	1006 Size SOD-923（VMN2）			1608 Size SOD-523（EMD2）			2512 Size SOD-323FL（UMD2）			2514 Size （TUMD2M）			2513 Size （TUMD2M）					
Equivalent Circuit Diagram																		
Series Name	CDZ Series			EDZV Series			UDZV Series			New YFZV Series			New YDZV Series					
Power（mW）	100			150			200			500			500					
Special Part No.	FH			FH			FH			FH			FH					
Taping Code	T2RA			T2R			TE-17			TR			TR					
Electrical Characteristics（Ta=25℃）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）			
Voltage	2.0B	2.02 to 2.20	5	2.0B	2.02 to 2.20	5	2.0B	2.02 to 2.20	5	2.0B	2.02 to 2.20	20	—	—	—			
	2.2B	2.22 to 2.41	5	2.2B	2.22 to 2.41	5	2.2B	2.22 to 2.41	5	2.2B	2.22 to 2.41	20	—	—	—			
	2.4B	2.43 to 2.63	5	2.4B	2.43 to 2.63	5	2.4B	2.43 to 2.63	5	2.4B	2.43 to 2.63	20	—	—	—			
	2.7B	2.69 to 2.91	5	2.7B	2.69 to 2.91	5	2.7B	2.69 to 2.91	5	2.7B	2.69 to 2.91	20	—	—	—			
	3.0B	3.01 to 3.22	5	3.0B	3.01 to 3.22	5	3.0B	3.01 to 3.22	5	3.0B	3.01 to 3.22	20	—	—	—			
	3.3B	3.32 to 3.53	5	3.3B	3.32 to 3.53	5	3.3B	3.32 to 3.53	5	3.3B	3.32 to 3.53	20	—	—	—			
	3.6B	3.600 to 3.845	5	3.6B	3.600 to 3.845	5	3.6B	3.600 to 3.845	5	3.6B	3.600 to 3.845	20	—	—	—			
	3.9B	3.89 to 4.16	5	3.9B	3.89 to 4.16	5	3.9B	3.89 to 4.16	5	3.9B	3.89 to 4.16	20	—	—	—			
	4.3B	4.17 to 4.43	5	4.3B	4.17 to 4.43	5	4.3B	4.17 to 4.43	5	4.3B	4.17 to 4.43	20	—	—	—			
	4.7B	4.55 to 4.75	5	4.7B	4.55 to 4.75	5	4.7B	4.55 to 4.75	5	4.7B	4.55 to 4.80	20	—	—	—			
	5.1B	4.98 to 5.20	5	5.1B	4.98 to 5.20	5	5.1B	4.98 to 5.20	5	5.1B	4.94 to 5.20	20	5.1	4.60 to 5.60	10			
	5.6B	5.49 to 5.73	5	5.6B	5.49 to 5.73	5	5.6B	5.49 to 5.73	5	5.6B	5.45 to 5.73	20	5.6	5.10 to 6.10	10			
	6.2B	6.06 to 6.33	5	6.2B	6.06 to 6.33	5	6.2B	6.06 to 6.33	5	6.2B	5.96 to 6.27	20	6.2	5.60 to 6.80	10			
	6.8B	6.65 to 6.93	5	6.8B	6.65 to 6.93	5	6.8B	6.65 to 6.93	5	6.8B	6.49 to 6.83	20	6.8	6.20 to 7.40	10			
	7.5B	7.28 to 7.60	5	7.5B	7.28 to 7.60	5	7.5B	7.28 to 7.60	5	7.5B	7.07 to 7.45	20	7.5	6.80 to 8.30	10			
	8.2B	8.02 to 8.36	5	8.2B	8.02 to 8.36	5	8.2B	8.02 to 8.36	5	8.2B	7.78 to 8.19	20	8.2	7.40 to 9.00	10			
	9.1B	8.85 to 9.23	5	9.1B	8.85 to 9.23	5	9.1B	8.85 to 9.23	5	9.1B	8.57 to 9.01	20	9.1	8.20 to 10.00	10			
	10B	9.77 to 10.21	5	10B	9.77 to 10.21	5	10B	9.77 to 10.21	5	10B	9.41 to 9.90	20	10	9.00 to 11.00	10			
	11B	10.76 to 11.22	5	11B	10.76 to 11.22	5	11B	10.76 to 11.22	5	11B	10.50 to 11.05	10	11	9.90 to 12.10	10			
	12B	11.74 to 12.24	5	12B	11.74 to 12.24	5	12B	11.74 to 12.24	5	12B	11.44 to 12.03	10	12	10.80 to 13.20	10			
	13B	12.91 to 13.49	5	13B	12.91 to 13.49	5	13B	12.91 to 13.49	5	13B	12.55 to 13.21	10	13	11.70 to 14.30	10			
	15B	14.34 to 14.98	5	15B	14.34 to 14.98	5	15B	14.34 to 14.98	5	15B	13.89 to 14.62	10	15	13.50 to 16.50	10			
	16B	15.85 to 16.51	5	16B	15.85 to 16.51	5	16B	15.85 to 16.51	5	16B	15.25 to 16.04	10	16	14.40 to 17.60	10			
	18B	17.56 to 18.35	2	18B	17.56 to 18.35	5	18B	17.56 to 18.35	5	18B	16.82 to 17.70	10	18	16.20 to 19.80	10			
	20B	19.52 to 20.39	2	20B	19.52 to 20.39	5	20B	19.52 to 20.39	5	20B	18.63 to 19.59	10	20	18.00 to 22.00	10			
	22B	21.54 to 22.47	2	22B	21.54 to 22.47	5	22B	21.54 to 22.47	5	22B	20.64 to 21.71	5	22	19.80 to 24.20	10			
	24B	23.72 to 24.78	2	24B	23.72 to 24.78	5	24B	23.72 to 24.78	5	24B	22.61 to 23.77	5	24	21.60 to 26.40	10			
	27B	26.19 to 27.53	2	27B	26.19 to 27.53	2	27B	26.19 to 27.53	5	27B	24.97 to 26.26	5	27	24.30 to 29.70	10			
	30B	29.19 to 30.69	2	30B	29.19 to 30.69	2	30B	29.19 to 30.69	5	30B	27.70 to 29.13	5	30	27.00 to 33.00	10			
	33B	32.15 to 33.79	2	33B	32.15 to 33.79	2	33B	32.15 to 33.79	5	33B	30.32 to 31.88	5	—	—	—			
	36B	35.07 to 36.87	2	36B	35.07 to 36.87	2	36B	35.07 to 36.87	5	36B	32.79 to 34.49	5	—	—	—			
	—	—	—	—	—	—	39B	38.02 to 39.98	2	39B	35.36 to 37.19	5	—	—	—			
	—	—	—	—	—	—	43	40.00 to 45.00	2	—	—	—	—	—	—			
	—	—	—	—	—	—	47	44.00 to 49.00	2	—	—	—	—	—	—			

Package	Surface Mount Type																	
	3516 Size SOD-123FL（PMDU）			5026 Size DO-214AC（SMA）（PMDS）			2120 Size SOT-343（UMD4）			2512 Size SOD-323FL（UMD2）			3516 Size SOD-123FL（PMDU）					
Equivalent Circuit Diagram																		
Series Name	New KDZV Series			PTZ Series			UMZK Series			New UDZLV Series			New KDZLV Series					
Power（mW）	1000			1000			200			200			1000					
Special Part No.	TF			TF			FH			FH			TF					
Taping Code	TR			TE25			TL			TE-17			TR					
Electrical Characteristics（Ta=25℃）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）		V_Z（V）	I_Z（mA）			
Voltage	2.0B	2.00 to 2.24	40	2.0B	2.00 to 2.24	40	—	—	—	51	48 to 54	2	51	48 to 54	2			
	2.2B	2.20 to 2.45	40	2.2B	2.20 to 2.45	40	—	—	—	56	53 to 60	2	56	53 to 60	2			
	2.4B	2.40 to 2.70	40	2.4B	2.40 to 2.70	40	—	—	—	62	58 to 66	2	62	58 to 66	2			
	2.7B	2.70 to 3.10	40	2.7B	2.70 to 3.10	40	—	—	—	68	64 to 72	2	68	64 to 72	2			
	3.0B	3.00 to 3.40	40	3.0B	3.00 to 3.40	40	—	—	—	75	70 to 79	2	75	70 to 79	2			
	3.3B	3.30 to 3.70	40	3.3B	3.30 to 3.70	40	—	—	—	82	77 to 87	2	82	77 to 87	2			
	3.6B	3.60 to 4.00	40	3.6B	3.60 to 4.00	40	3.6K	3.600 to 3.845	5	91	85 to 96	1	91	85 to 96	2			
	3.9B	3.90 to 4.40	40	3.9B	3.90 to 4.40	40	3.9K	3.89 to 4.16	5	100	94 to 106	1	100	94 to 106	2			
	4.3B	4.30 to 4.80	40	4.3B	4.30 to 4.80	40	4.3K	4.17 to 4.43	5	110	104 to 116	1	110	104 to 116	2			
	4.7B	4.70 to 5.20	40	4.7B	4.70 to 5.20	40	4.7K	4.55 to 4.75	5	120	114 to 126	1	120	114 to 126	2			
	5.1B	5.10 to 5.70	40	5.1B	5.10 to 5.70	40	5.1K	4.98 to 5.20	5	130	122 to 138	1	130	122 to 138	2			
	5.6B	5.60 to 6.30	40	5.6B	5.60 to 6.30	40	5.6K	5.49 to 5.73	5	150	140 to 160	1	150	140 to 160	2			
	6.2B	6.20 to 7.00	40	6.2B	6.20 to 7.00	40	6.2K	6.06 to 6.33	5	—	—	—	—	—	—			
	6.8B	6.80 to 7.70	40	6.8B	6.80 to 7.70	40	6.8K	6.65 to 6.93	5	—	—	—	—	—	—			
	7.5B	7.50 to 8.40	40	7.5B	7.50 to 8.40	40	7.5K	7.28 to 7.60	5	—	—	—	—	—	—			
	8.2B	8.20 to 9.30	40	8.2B	8.20 to 9.30	40	8.2K	8.02 to 8.36	5	—	—	—	—	—	—			
	9.1B	9.10 to 10.20	40	9.1B	9.10 to 10.20	40	9.1K	8.85 to 9.23	5	—	—	—	—	—	—			
	10B	10.00 to 11.20	40	10B	10.00 to 11.20	40	10K	9.77 to 10.21	5	—	—	—	—	—	—			
	11B	11.00 to 12.30	20	11B	11.00 to 12.30	20	11K	10.76 to 11.22	5	—	—	—	—	—	—			
	12B	12.00 to 13.50	20	12B	12.00 to 13.50	20	12K	11.74 to 12.24	5	—	—	—	—	—	—			
	13B	13.30 to 15.00	20	13B	13.30 to 15.00	20	13K	12.91 to 13.49	5	—	—	—	—	—	—			
	15B	14.70 to 16.50	20	15B	14.70 to 16.50	20	15K	14.34 to 14.98	5	—	—	—	—	—	—			
	16B	16.20 to 18.30	20	16B	16.20 to 18.30	20	16K	15.85 to 16.51	5	—	—	—	—	—	—			
	18B	18.00 to 20.30	20	18B	18.00 to 20.30	20	18K	17.56 to 18.35	5	—	—	—	—	—	—			
	20B	20.00 to 22.40	20	20B	20.00 to 22.40	20	20K	19.52 to 20.39	5	—	—	—	—	—	—			
	22B	22.00 to 24.50	10	22B	22.00 to 24.50	10	22K	21.54 to 22.47	5	—	—	—	—	—	—			
	24B	24.00 to 27.60	10	24B	24.00 to 27.60	10	24K	23.72 to 24.78	5	—	—	—	—	—	—			
	27B	27.00 to 30.80	10	27B	27.00 to 30.80	10	27K	26.19 to 27.53	5	—	—	—	—	—	—			
	30B	30.00 to 34.00	10	30B	30.00 to 34.00	10	30K	29.19 to 30.69	5	—	—	—	—	—	—			
	33B	33.00 to 37.00	10	33B	33.00 to 37.00	10	33K	32.15 to 33.79	5	—	—	—	—	—	—			
	36B	36.00 to 40.00	10	36B	36.00 to 40.00	10	36K	35.07 to 36.87	5	—	—	—	—	—	—			

This table shows available voltages.　（）：ROHM PKG.

齐纳二极管（包括TVS）

●2-4复合保护器件快速参考

V_Z (V)	Package						
	1212 Size	1616 Size	1616 Size	2120 Size	2120 Size	2928 Size	2928 Size
							
	SOT-723 (VMD3)	SOT-416 (EMD3)	SOT-553 (EMD5)	SOT-323 (UMD3)	SOT-353 (UMD5)	SOT-346 (SMD3)	SOT-25 (SMD5)
4.3							**FTZ4.3E**
5.1				**UMZ5.1N**			
5.6						**STZ5.6N**	**FTZ5.6E**
6.2						**STZ6.2N**	
6.8	**VMZ6.8N**	**EMZ6.8N**	**EMZ6.8E**	**UMZ6.8N**	**UMZ6.8EN**	**STZ6.8T** **STZ6.8N**	**FTZ6.8E**
8.2				**UMZ8.2T** **UMZ8.2N**			
12				**UMZ12N**			
16				**UMZ16N**			
18				**UMZ18N**			
27				**UMZ27N**			
30				**UMZ30N**			**FTZ30E**
36				**UMZ36N**			

●低电容保护器件快速参考（TVS）

V_Z (V)	Package									
	1006 Size	1212 Size	1608 Size	1616 Size	1616 Size	1616 Size	2512 Size	2120 Size	2928 Size	2928 Size
										
	SOD-923 (VMN2)	SOT-723 (VMD3)	SOD-523 (EMD2)	SOT-416 (EMD3)	SOT-553 (EMD5)	SOT-563 (EMD6)	SOD-323FL (UMD2)	SOT-323 (UMD3)	SOT-346 (SMD3)	SOT-25 (SMD5)
5.6							**UDZU5.6B**			
6.2							**UDZU6.2**			**FTZU6.2E**
6.8	**CDZC6.8B**	**VMZT6.8N**	**EDZCV6.8B**	**EMZC6.8N**	**EMZT6.8E**	**RSB6.8JS2**		**UMZC6.8N**	**STZC6.8N**	
12		**RSB12Z**		**RSB12W**		**RSB12JS2**				

●ESD保护器件（TVS）

V_Z (V)	Package				
	1616 Size	2120 Size	3516 Size	2928 Size	5026 Size
					
	SOT-553 (EMD5)	SOT-353 (UMD5)	SOD-123FL (PMDU)	SOT-457 (SMD6)	DO-214AC (SMA) (PMDS)
6	**RSA6.1J4**	**RSA6.1EN**	**RSA5MM**	**RSA6.1U5**	**RSA5L**
12			**RSA12MM**		**RSA12L**
30					**RSA30L**

●双向齐纳二极管快速参考

V_Z (V)	Package							
	1006 Size	1406 Size	2512 Size	2513 Size	2120 Size			
								
	SOD-923 (VMN2)	SOD-723 (VMD2)	SOD-323FL (UMD2)	(TUMD2)	SOT-323 (UMD3)	SOT-323FL (UMD3F)	SOT-343 (UMD4)	SOT-363 (UMD6)
5.6								
6.8	**RSB6.8CS**	**RSB6.8G**			**RSB6.8F2**			
12			**RSB12V**					
16			**RSB16V**	**RSB16VA**	**RSB16F2**			**RSB16X3N**
18			**RSB18V**	**RSB18VA**	**RSB18F2**			
27			**RSB27V**	**RSB27VA**	**RSB27F2**	New **RSB27UM2**	**RSB27K2**	
29			**RSB33V**		**RSB33F2**			
32			**RSB36V**		**RSB36F2**			
35			**RSB39V**		**RSB39F2**			

●超低电容双向齐纳二极管快速参考

V_Z (V)	Package
	1006 Size
	
	SOD-923 (VMN2)
6.8	**RSBC6.8CS**

2-4复合保护器件（AEC-Q101）

Product No.			Absolute Maximum Rating（Ta=25℃） P (mW)	Electrical Characteristics（Ta=25℃） V_Z (V)	I_Z (mA)	Remarks	Package	Equivalent Circuit Diagram
UMZ8.2T	FH	T106	200	7.76 to 8.64	5		SOT-323 (UMD3)	
STZ6.8T	FH	T146	200	6.47 to 7.14	5		SOT-346 (SMD3)	
VMZ6.8N	FH	T2L	150	6.47 to 7.14	5		SOT-723 (VMD3)	
EMZ6.8N	FH	TL	150	6.47 to 7.14	5		SOT-416 (EMD3)	
UMZ5.1N	FH	T106	200	4.84 to 5.37	5		SOT-323 (UMD3)	
UMZ6.8N	FH	T106	200	6.47 to 7.14	5			
UMZ8.2N	FH	T106	200	7.76 to 8.64	5			
UMZ12N	FH	T106	200	11.0 to 13.0	5			
UMZ16N	FH	T106	200	15.85 to 16.51	5			
UMZ18N	FH	T106	200	17.56 to 18.35	5	IEC61000-4-2 150pF,330Ω Contact 8kV Air 15kV		
UMZ27N	FH	T106	200	26.19 to 27.53	5			
UMZ30N	FH	T106	200	29.19 to 30.69	5			
UMZ36N	FH	T106	200	35.07 to 36.87	5			
STZ5.6N	FH	T146	200	5.31 to 5.92	5		SOT-346 (SMD3)	
STZ6.2N	FH	T146	200	5.81 to 6.40	5			
STZ6.8N	FH	T146	200	6.47 to 7.14	5			
EMZ6.8E	FH	T2R	150	6.47 to 7.14	5		SOT-553 (EMD5)	
UMZ6.8EN	FH	TR	200	6.47 to 7.14	5		SOT-353 (UMD5)	
FTZ4.3E	FH	T148	200	4.04 to 4.57	5		SOT-25 (SMD5)	
FTZ5.6E	FH	T148	200	5.31 to 5.92	5			
FTZ6.8E	FH	T148	200	6.47 to 7.14	5			
FTZ30E	FH	T148	200	29.19 to 30.09	5			

低电容保护器件（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25℃) P (mW)	Electrical Characteristics（Ta=25℃） V_Z (V)	I_Z (mA)	C_t (pF)	f (MHz)	V_R (V)	Package	Equivalent Circuit Diagram
UMZU6.2N	FH	T106	200	5.9 to 6.5	5	8	1	0	SOT-323 (UMD3)	
FTZU6.2E	FH	T148	200	5.9 to 6.5	5	8	1	0	SOT-25 (SMD5)	
CDZC6.8B	FH	T2RA	100	6.65 to 6.93	5	3	1	0	SOD-923 (VMN2)	
EDZCV6.8B	FH	T2R	150	6.65 to 6.93	5	3	1	0	SOD-523 (EMD2)	
UDZU5.6B	FH	TE-17	200	5.49 to 5.73	5	8	1	0	SOD-323FL (UMD2)	
UDZU6.2	FH	TE-17	200	5.90 to 6.50	5	8	1	0		
EMZC6.8N	FH	TL	150	6.47 to 7.14	5	3	1	0	SOT-416 (EMD3)	
VMZT6.8N	FH	T2L	150	6.47 to 7.14	5	7	1	0	SOT-723 (VMD3)	
UMZC6.8N	FH	T106	200	6.47 to 7.14	5	3	1	0	SOT-323 (UMD3)	
STZC6.8N	FH	T146	200	6.47 to 7.14	5	3	1	0	SOT-346 (SMD3)	
RSB12Z	FH	T2L	100	9.6 to 14.4	5	1	1	0	SOT-723 (VMD3)	
RSB12W	FH	TL	150	9.6 to 14.4	5	1	1	0	SOT-416 (EMD3)	
EMZT6.8E	FH	T2R	150	6.47 to 7.14	5	7	1	0	SOT-553 (EMD5)	
RSB6.8JS2	FH	T2R	150	6.0 to 8.0	5	1	1	0	SOT-563 (EMD6)	
RSB12JS2	FH	T2R	150	9.6 to 14.4	5	1	1	0		

ESD保护器件（TVS）（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25℃) P (mW)	Electrical Characteristics（Ta=25℃） V_Z (V)	I_Z (mA)	Peak Pulse Power (W) (tp=10×1000μs)	Package	Equivalent Circuit Diagram
RSA6.1J4	FH	T2R	150	6.10 to 7.20	1	10	SOT-553 (EMD5)	
RSA6.1EN	FH	TR	200	6.10 to 7.20	1	30	SOT-353 (UMD5)	
RSA6.1U5	FH	T110	200	6.10 to 7.20	1	30	SOT-457 (SMD6)	
RSA5MM	TF	TR	1,000	6.4 to 7.0	10	200	SOD123FL (PMDU)	
RSA12MM	TF	TR	1,000	13.3 to 14.7	1	200		
RSA5L	TF	TE25	1,000	6.45 to 7.14	10	600	DO-214AC (SMA) (PMDS)	
RSA12L	TF	TE25	1,000	13.3 to 14.7	1	600		
RSA30L	TF	TE25	1,000	28.5 to 31.5	1	600		

* : (3), (6)pin must be open when using.
( ) : ROHM PKG.

齐纳二极管（包括TVS）

双向齐纳二极管（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25°C) P (mW)	Electrical Characteristics (Ta=25°C) Vz (V)	Iz (mA)	Remarks	Package	Equivalent Circuit Diagram
RSB6.8CS	FH	T2RA	100	5.78 to 7.82	1		SOD-923 (VMN2)	
RSB6.8G	FH	T2R	100	5.78 to 7.82	1		SOD-723 (VMD2)	
RSB12V	FH	TE-17	200	10.8 to 13.2	1		SOD-323FL (UMD2)	
RSB16V	FH	TE-17	200	14.4 to 17.6	1		SOD-323FL (UMD2)	
RSB18V	FH	TE-17	200	16.2 to 19.8	1		SOD-323FL (UMD2)	
RSB27V	FH	TE-17	200	26.2 to 32.0	1		SOD-323FL (UMD2)	
RSB33V	FH	TE-17	200	29.7 to 36.3	1		SOD-323FL (UMD2)	
RSB36V	FH	TE-17	200	32.4 to 39.6	1		SOD-323FL (UMD2)	
RSB39V	FH	TE-17	200	35.1 to 42.9	1		SOD-323FL (UMD2)	
RSB16VA	FH	TR	500	14.4 to 17.6	1	IEC61000-4-2 150pF,330Ω Contact 8kV Air 15kV	(TUMD2)	
RSB18VA	FH	TR	500	16.2 to 19.8	1		(TUMD2)	
RSB27VA	FH	TR	500	26.2 to 32.0	1		(TUMD2)	
RSB6.8F2	FH	T106	200	5.78 to 7.82	1		SOT-323 (UMD3)	
RSB16F2	FH	T106	200	14.4 to 17.6	1		SOT-323 (UMD3)	
RSB18F2	FH	T106	200	16.2 to 19.8	1		SOT-323 (UMD3)	
RSB27F2	FH	T106	200	26.2 to 32.0	1		SOT-323 (UMD3)	
RSB33F2	FH	T106	200	29.7 to 36.3	1		SOT-323 (UMD3)	
RSB36F2	FH	T106	200	32.4 to 39.6	1		SOT-323 (UMD3)	
RSB39F2	FH	T106	200	35.1 to 42.9	1		SOT-323 (UMD3)	
New RSB27UM2	FH	TL	200	26.2 to 32.0	1		SOT-323FL (UMD3F)	
RSB27K2	FH	TL	200	26.2 to 32.0	1		SOT-343 (UMD4)	
RSB16X3N	FH	TR	200	14.4 to 17.6	1		SOT-363 (UMD6)	

超低电容双向齐纳二极管（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25°C) P (mW)	Electrical Characteristics (Ta=25°C) Vz (V)	Iz (mA)	Ct (pF)	f (MHz)	VR (V)	Package	Equivalent Circuit Diagram
RSBC6.8CS	FH	T2RA	100	6.62 to 7.24	5	1	1	0	SOD-923 (VMN2)	

( ) : ROHM PKG.

开关二极管

●开关二极管快速参考

VR (V)	Package					
	1006 Size	1406 Size	1212 Size	1608 Size	1616 Size	
	SOD-923 (VMN2)	SOD-723 (VMD2)	SOT-723 (VMD3)	SOD-523 (EMD2)	SOT-416 (EMD3)	SOT-416FL (EMD3F)
20			DA221M		DA221	
80 to 90	1SS400CS	1SS400G	DAN222M DAP222M	1SS400SM	DAN222 DAP222 DAN217W DA228W	DAN222WM DAP222WM DAN217WM

VR (V)	Package							
	1616 Size		2512 Size	2120 Size				
	SOT-543 (EMD4)	SOT-563 (EMD6)	SOD-323FL (UMD2)	SOT-323 (UMD3)	SOT-323FL (UMD3F)	SOT-343 (UMD4)	SOT-353 (UMD5)	SOT-363 (UMD6)
20				DA204U				
40			☆1SS380VM					
80 to 90	DA227Y	EMN11 EMP11	1SS355VM	DA228U DAN202U DAN217U DAP202U DA380U	DAN202UM DAP202UM DAN217UM	DA227	UMN1N UMP1N	UMN10N UMN11N UMP11N UMR11N UMR12N UMN20N

VR (V)	Package			
	2928 Size	2928 Size		
	SOT-23 (SSD3)	SOT-346 (SMD3)	SOT-25 (SMD5)	SOT-457 (SMD6)
20	New BAS16HM	DA228K	FMN1	IMN10
40	New BAV70HM	DAN202K	FMP1	IMN11
80 to 90	New BAW56HM New BAV99HM	DAN217 DAP202K		IMP11

☆: Under Development

开关二极管

快速型（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25℃) *1					Electrical Characteristics (Ta=25℃) *1							Package	Equivalent Circuit Diagram
			V_{RM} (V)	V_R (V)	I_{FM} (mA)	I_O (mA)	Isurge (mA)	V_F (V) Max.	I_F (mA)	I_R (μA) Max.	V_R (V)	trr (ns) Max.	V_R (V)	I_F (mA)		
1SS400CS	FH	T2RA	90	80	—	100	500 (1s)	1.2	100	0.1	80	4	6	10	SOD-923 (VMN2)	
1SS400G	FH	T2R	90	80	—	100	500 (1s)	1.2	100	0.1	80	4	6	10	SOD-723 (VMD2)	
1SS400SM	FH	T2R	90	80	225	100	500 (1s)	1.2	100	0.1	80	4	6	10	SOD-523 (EMD2)	
1SS355VM	FH	TE-17	90	80	225	100	500 (1s)	1.2	100	0.1	80	4	6	10	SOD-323FL (UMD2)	
New BAS16HM	FH	T116	100	80	500	215*3	4000 (1μs)	1.25	150	0.1	80	4	10*2	10	SOT-23 (SSD3)	
DAN222M	FH	T2L	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-723 (VMD3)	
DAN222	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-416 (EMD3)	
DAN222WM	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-416FL (EMD3F)	
DAN202U	FH	T106	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-323 (UMD3)	
DAN202UM	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-323FL (UMD3F)	
New BAV70HM	FH	T116	90	80	450	215*3	4000 (1μs)	1.25	150	0.1	80	4	10*2	10	SOT-23 (SSD3)	
DAN202K	FH	T146	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-346 (SMD3)	
DAP222M	FH	T2L	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-723 (VMD3)	
DAP222	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-416 (EMD3)	
DAP222WM	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-416FL (EMD3F)	
DAP202U	FH	T106	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-323 (UMD3)	
DAP202UM	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-323FL (UMD3F)	
New BAW56HM	FH	T116	100	80	500	215*3	4000 (1μs)	1.25	150	0.1	80	4	10*2	10	SOT-23 (SSD3)	
DAP202K	FH	T146	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-346 (SMD3)	
DA221M	FH	T2L	20	20	200	100	300 (1μs)	1	10	0.1	15	—	—	—	SOT-723 (VMD3)	
DA221	FH	TL	20	20	200	100	300 (1μs)	1	10	0.1	15	—	—	—	SOT-416 (EMD3)	
DAN217W	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5		
DA228W	FH	TL	80	80	200	100	300 (1μs)	1.2	100	0.1	80	—	—	—		
DAN217WM	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-416FL (EMD3F)	
DA204U	FH	T106	20	20	200	100	300 (1μs)	1	10	0.1	15	—	—	—	SOT-323 (UMD3)	
DAN217U	FH	T106	80	80	300	100	4000 (1μs)	1.2	100	0.2	70	4	6	5		
DAN217UM	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.2	70	4	6	5	SOT-323FL (UMD3F)	
DA228U	FH	T106	80	80	200	100	300 (1μs)	1.2	100	0.01	80	—	—	—	SOT-323 (UMD3)	
New BAV99HM	FH	T116	100	80	500	215*3	4000 (1μs)	1.25	150	0.1	80	4	10*2	10	SOT-23 (SSD3)	
DAN217	FH	T146	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5		
DA228K	FH	T146	80	80	200	100	300 (1μs)	1.2	100	0.01	80	—	—	—	SOT-346 (SMD3)	
DA204K	FH	T146	20	20	200	100	300 (1μs)	1	10	0.1	15	—	—	—		
UMN1N	FH	TR	80	80	80	25	250 (1μs)	0.9	5	0.1	70	4	6	5	SOT-353 (UMD5)	
FMN1	FH	T148	80	80	80	25	250 (1μs)	0.9	5	0.1	70	4	6	5	SOT-25 (SMD5)	
UMP1N	FH	TR	80	80	80	25	250 (1μs)	0.9	5	0.1	70	4	6	5	SOT-353 (UMD5)	
FMP1	FH	T148	80	80	80	25	250 (1μs)	0.9	5	0.1	70	4	6	5	SOT-25 (SMD5)	
EMN11	FH	T2R	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-563 (EMD6)	
UMN11N	FH	TN	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-363 (UMD6)	
IMN11	FH	T110	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-457 (SMD6)	
EMP11	FH	T2R	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-563 (EMD6)	
UMP11N	FH	TN	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-363 (UMD6)	
IMP11	FH	T110	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-457 (SMD6)	
UMR11N	FH	TR	80	80	300	100	400 (1μs)	1.2	100	0.1	70	4	6	5	SOT-363 (UMD6)	
UMR12N	FH	TN	80	80	200	100	300 (1μs)	1.2	100	0.1	80	—	—	—	SOT-363 (UMD6)	
DA227Y	FH	T2R	80	80	300	100	400 (1μs)	1.2	100	0.1	70	4	6	5	SOT-543 (EMD4)	
DA227	FH	TL	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-343 (UMD4)	
UMN10N	FH	TR	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-363 (UMD6)	
IMN10	FH	T108	80	80	300	100	4000 (1μs)	1.2	100	0.1	70	4	6	5	SOT-457 (SMD6)	

低漏失型（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25℃)					Electrical Characteristics (Ta=25℃)							Package	Equivalent Circuit Diagram
			V_{RM} (V)	V_R (V)	I_{FM} (mA)	I_O (mA)	Isurge (mA)	V_F (V) Max.	I_F (mA)	I_R (μA) Max.	V_R (V)	trr (ns) Max.	V_R (V)	I_F (mA)		
☆1SS380VM	FH	TE-17	40	35	225	100	400 (1s)	1.2	100	0.01	20	—	—	—	SOD-323FL (UMD2)	
DA380U	FH	T106	80	80	225	100	400 (1s)	1.2	100	0.01	20	—	—	—	SOT-323 (UMD3)	
UMN20N	FH	TR	80	80	225	100	400 (1s)	1.2	100	0.01	20	—	—	—	SOT-363 (UMD6)	

*1 : Value/Chip. *2 : Value for I_R (mA) instead of V_R (V) *3 : Values for I_F.
( ) : ROHM PKG [ ] : JEITA Code

☆ : Under Development

高频二极管

●高频二极管快速参考

	V_R (V)	Package				
		1608 Size	1616 Size	2512 Size	2120 Size	2928 Size
						
		SOD-523 (EMD2)	SOT-416 (EMD3)	SOD-323FL (UMD2)	SOT-323 (UMD3)	SOT-346 (SMD3)
Band Switching Diodes	35	**1SS390**	**DAN235E**	**1SS356**	**DAN235U** **DAP236U**	
PIN Diodes	50			**RN731V** **RN771V**	**RN739F** **RN779F**	**RN779D**

频带开关二极管（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25℃) *			Electrical Characteristics (Ta=25℃) *						Package	Equivalent Circuit Diagram
			V_R (V)	Tj (℃)	Tstg (℃)	Ct(pF) Max.	V_R(V)	f(MHz)	rF(Ω) Max.	I_F(mA)	f(MHz)		
1SS390	FH	TE61	35	125	-55 to +125	1.2	6	1	0.9	2	100	SOD-523 (EMD2)	
1SS356	FH	TE-17	35	125	-55 to +125	1.2	6	1	0.9	2	100	SOD-323FL (UMD2)	
DAN235E	FH	TL	35	125	-55 to +125	1.2	6	1	0.9	2	100	SOT-416 (EMD3)	
DAN235U	FH	T106	35	125	-55 to +125	1.2	6	1	0.9	2	100	SOT-323 (UMD3)	
DAP236U	FH	T106	35	125	-55 to +125	1.2	6	1	0.9	2	100	SOT-323 (UMD3)	

PIN二极管（AEC-Q101）

Product No.			Absolute Maximum Rating (Ta=25℃) *				Electrical Characteristics (Ta=25℃) *						Package	Equivalent Circuit Diagram
			V_R (V)	I_F (mA)	Tj (℃)	Tstg (℃)	Ct(pF) Max.	V_R(V)	f(MHz)	rF(Ω) Max.	I_F(mA)	f(MHz)		
RN731V	FH	TE-17	50	50	125	-55 to +150	0.4	35	1	7	10	100	SOD-323FL (UMD2)	
RN771V	FH	TE-17	50	50	150	-55 to +150	0.9	35	1	7	10	100		
RN739F	FH	T106	50	50	125	-55 to +150	0.4	35	1	7	10	100	SOT-323 (UMD3)	
RN779F	FH	T106	50	50	150	-55 to +150	0.9	35	1	7	10	100		
RN779D	FH	T146	50	50	150	-55 to +150	0.9	35	1	7	10	100	SOT-346 (SMD3)	

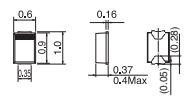
* : Value/Chip.
( ) : ROHM PKG.

封装

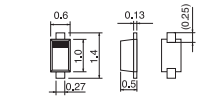
●尺寸 (Unit:mm)

表面贴装型

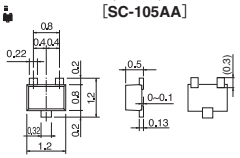
SOD-923 (VMN2)



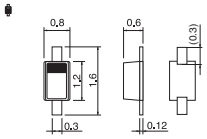
SOD-723 (VMD2) [SC-104A]



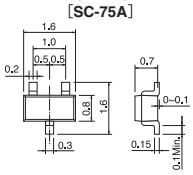
SOT-723 (VMD3) [SC-105AA]



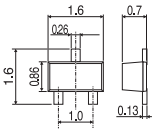
SOD-523 (EMD2) [SC-79]



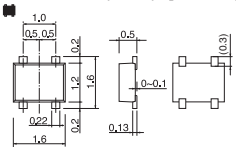
SOT-416 (EMD3) [SC-75A]



SOT-416FL (EMD3F) [SC-89]

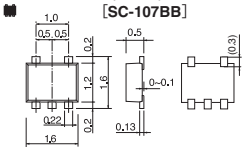


SOT-543 (EMD4) [SC-107A]

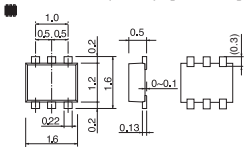


Each lead has same dimensions

SOT-553 (EMD5) [SC-107BB]

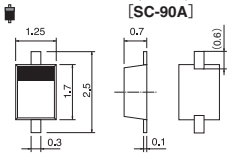


SOT-563 (EMD6) [SC-107C]

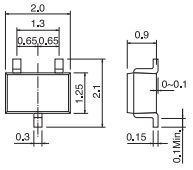


Each lead has same dimensions

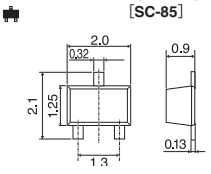
SOD-323FL (UMD2) [SC-90A]



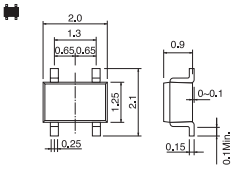
SOT-323 (UMD3) [SC-70]



SOT-323FL (UMD3F) [SC-85]

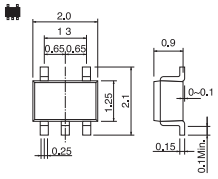


SOT-343 (UMD4) [SC-82]

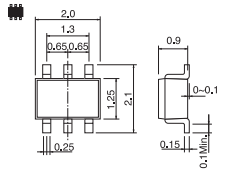


Each lead has same dimensions

SOT-353 (UMD5) [SC-88A]

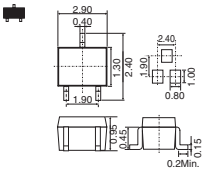


SOT-363 (UMD6) [SC-88]

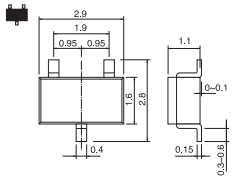


Each lead has same dimensions

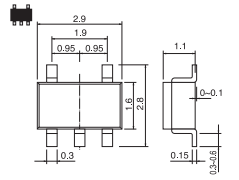
SOT-23 (SSD3)



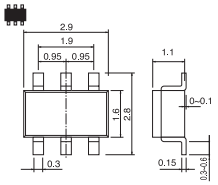
SOT-346 (SMD3) [SC-59]



SOT-25 (SMD5) [SC-74A]

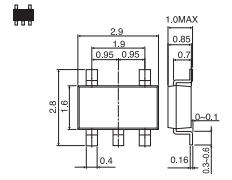


SOT-457 (SMD6) [SC-74]

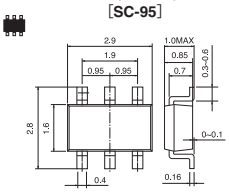


Each lead has same dimensions

SOT-25T (TSMD5) [SC-95]

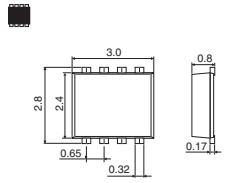


SOT-457T (TSMD6) [SC-95]



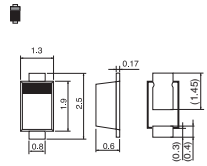
Each lead has same dimensions

(TSMD8)

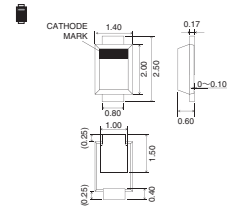


Each lead has same dimensions

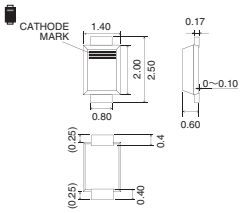
(TUMD2)



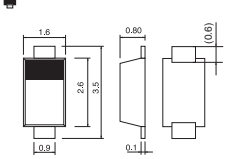
(TUMD2M) [SC-108B]



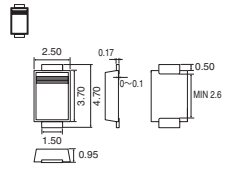
(TUMD2SM)



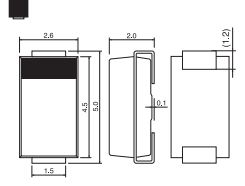
SOD-123FL (PMDU) [SC-109B]



SOD-128 (PMDTM)



DO-214AC (SMA) (PMDS)



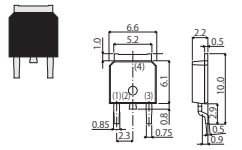
( ) : ROHM PKG [ ]: JEITA Code

功率封装

●尺寸 (Unit:mm)

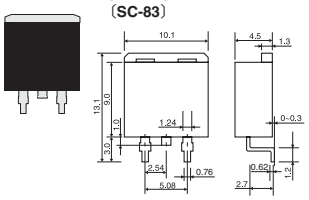
表面贴装型

TO-252 (DPAK)



Each lead has same dimensions

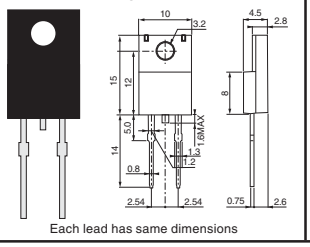
TO-263S (D2PAK) (SC-83)



Each lead has same dimensions

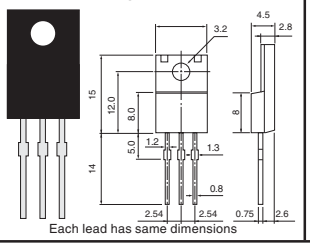
引脚插入型

TO-220FN (2pin)



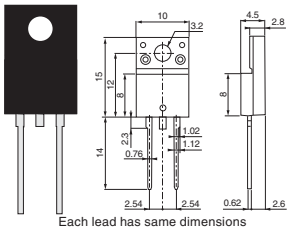
Each lead has same dimensions

TO-220FN (3pin)



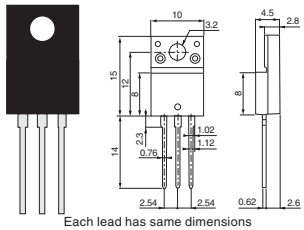
Each lead has same dimensions

TO-220NFM (2pin)



Each lead has same dimensions

TO-220NFM (3pin)



Each lead has same dimensions

[ ]:JEITA Code.

品名构成说明

•订货时，请指明品名代码。
•请参照下表核对每一个代码。
•请由左至右填写品名代码。

•功率二极管

Example) RFNL5BM6S (Part No.) TL (Taping Code)

•小信号二极管/整流二极管

Example) 1SS355VM (Part No.) TE-17 (Taping Code)

•齐纳二极管

Example) UDZV (Part No.) TE-17 (Taping Code) 5.1 (Zener Voltage) B (Fine distinction)

•包装代码（表面贴装）

Package	Code	ROHM Package	Package Style	Direction	Basic Ordering Unit (pcs)
SOD-923	T2RA	VMN2	Embossed tape	Cathode on sprocket hole side	8,000
SOD-923	T2R	VMN2M	Embossed tape	Cathode on sprocket hole side	8,000
SOD-723	T2R	VMD2	Embossed tape	Cathode on sprocket hole side	8,000
SOT-723	T2L	VMD3	Embossed tape	One terminal on sprocket hole side	8,000
SOD-523	TE61	EMD2	Embossed tape	Cathode on sprocket hole side	3,000
	T2R		Embossed tape	Cathode on sprocket hole side	8,000
	T2N		Embossed tape	Cathode on sprocket hole side / Non-direction	8,000
SOT-416	TL	EMD3	Embossed tape	One terminal on sprocket hole side	3,000
SOT-416FL	TL	EMD3F	Embossed tape	One terminal on sprocket hole side	3,000
SOT-543 SOT-553 SOT-563	T2R	EMD4 EMD5 EMD6	Embossed tape	Cathode on sprocket hole side	8,000
SOD-323FL	TE-17	UMD2	Embossed tape	Cathode on sprocket hole side	3,000
	TW11*1				
SOT-323	T106	UMD3	Embossed tape	One terminal on sprocket hole side	3,000
SOT-323FL	TL	UMD3F	Embossed tape	One terminal on sprocket hole side	3,000
SOT-343	TL	UMD4	Embossed tape	Cathode on sprocket hole side (DA227)	3,000
SOT-353	TR	UMD5	Embossed tape	Three terminals on sprocket hole side	3,000
SOT-363	TN	UMD6	Embossed tape	Non-direction	3,000
	TR*2			Cathode on sprocket hole side	
SOT-23	T116	SST3	Embossed tape	One terminal on sprocket hole side	3,000
SOT-346	T146	SMD3	Embossed tape	One terminal on sprocket hole side	3,000
SOT-25	T148	SMD5	Embossed tape	Three terminals on sprocket hole side	3,000
SOT-457	T108*3	SMD6	Embossed tape	Anode on sprocket hole side	3,000
	T110			Non-direction	
SOT-25T	TR	TSMD5	Embossed tape	Terminal No.1 on sprocket hole side	3,000
SOT-457T	TR	TSMD6	Embossed tape	Terminal No.1 on sprocket hole side	3,000
—	TR	TSMD8	Embossed tape	Terminal No.1 on sprocket hole side	3,000
—	TR	TUMD2	Embossed tape	Cathode on sprocket hole side	3,000
—	TR	TUMD2S	Embossed tape	Cathode on sprocket hole side	3,000
—	TR	TUMD2M	Embossed tape	Cathode on sprocket hole side	3,000
—	TR	TUMD2SM	Embossed tape	Cathode on sprocket hole side	3,000
SOD-123FL	TR	PMDU	Embossed tape	Cathode on sprocket hole side	3,000
SOD-128	TR	PMDTM	Embossed tape	Cathode on sprocket hole side	3,000
DO-214AC (SMA)	TE25	PMDS	Embossed tape	Cathode on sprocket hole side	1,500
TO-252	TL	DPAK	Embossed tape	Fin on sprocket hole side	2,500
TO-263S	TL	D2PAK	Embossed tape	Fin on sprocket hole side	1,000
TO-220FN(3Pin)	C9	—	Stick	box	1,000
TO-220FN(2Pin)	C9	—	Stick	box	1,000
TO-220NFM	C9	—	Stick	box	1,000

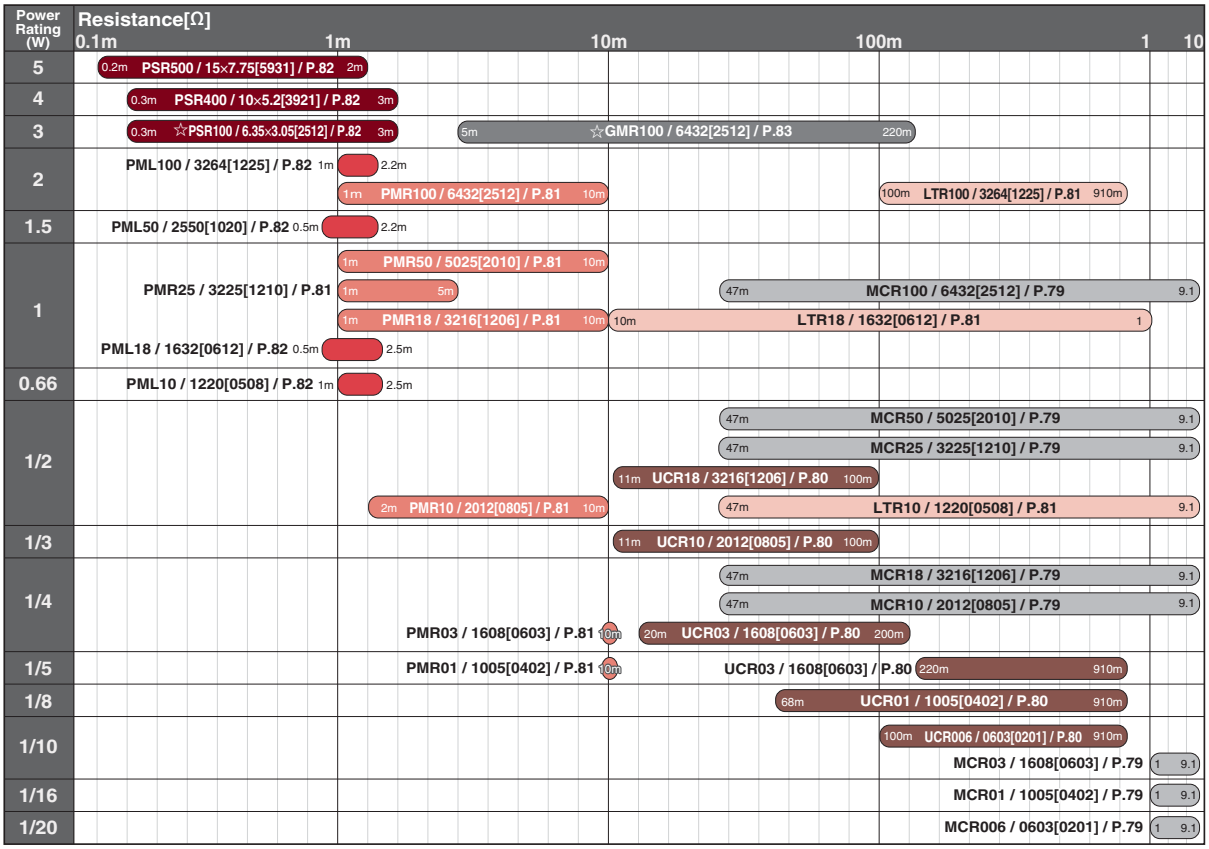
*1 For SOD-323FL (UMD2) package, only 1SS356 is available in TW11.
*2 For SOT-363 (UMD6) package, only RB731XN and UMN10N are available in TR.
*3 For SOT-457 (SMD6) package, only IMN10 and RB731U are available in T108.

电阻值范围快速参考

■低阻值产品系列

Part No./mm[inch]/Page

PSR GMR PML PMR Metal Strip　UCR LTR MCR Thick Film

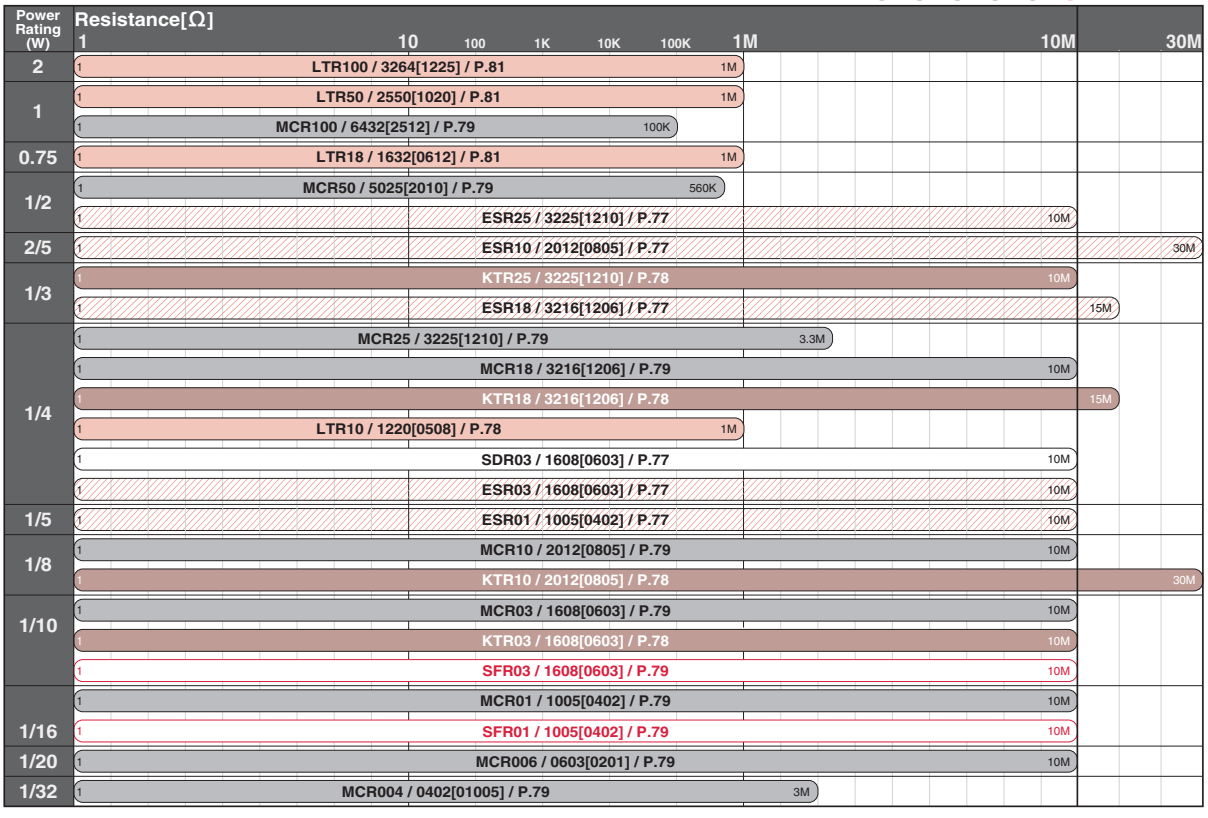


☆： Under Development

■1Ω以上产品系列

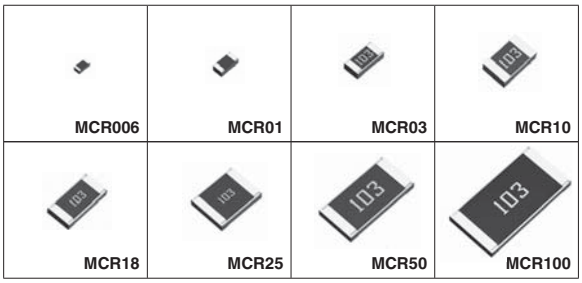
Part No./mm[inch]/Page

ESR SDR KTR LTR MCR SFR Thick Film



厚贴膜片电阻器（通用型）
贴片电阻器MCR系列（0603 to 6432）

- 高可靠性贴片电阻器可应用于所有电子产品中
  - 提供0603到6432的8种车载产品
  - 从可穿戴式、便携式设备到车载、工业设备等，均有采用实绩。



MCR系列（0603 to 6432）（AEC-Q200）

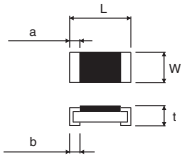
Part No.	Size Code mm (inch)	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
MCR006	0603 (0201)	0.05W (1/20W)	25	J (±5%)	+600/−200	1.0Ω to 9.1Ω (E24 Series)	−55 to +155	Yes
					±250	10Ω to 10MΩ (E24 Series)		
				F (±1%)	±250	10Ω to 10MΩ (E24,96 Series)		
				D (±0.5%)	±200	10Ω to 976Ω (E24,96 Series)		
					±100	1kΩ to 1MΩ (E24,96 Series)		
MCR01	1005 (0402)	0.063W*1 (1/16W)	50	J (±5%)	+500/−250	1.0Ω to 9.1Ω (E24 Series)		Yes
					±200	10Ω to 10MΩ (E24 Series)		
				F (±1%)	±100	10Ω to 2.2MΩ (E24,96 Series)		
		0.063W (1/16W)		D (±0.5%)	±100	10Ω to 97.6Ω (E24,96 Series)		
					±50	100Ω to 1MΩ (E24,96 Series)		
MCR03	1608 (0603)	0.1W*1 (1/10W)	50	J (±5%)	±400	1.0Ω to 9.1Ω (E24 Series)		Yes
					±200	10Ω to 10MΩ (E24 Series)		
				FX (±1%)	±100	10Ω to 10MΩ (E24,96 Series)		
		0.1W (1/10W)		D (±0.5%)	±100	10Ω to 97.6Ω (E24,96 Series)		
					±50	100Ω to 1MΩ (E24,96 Series)		
MCR10	2012 (0805)	0.125W*1 (1/8W)	150	J (±5%)	±400	1.0Ω to 9.1Ω (E24 Series)		Yes
					±200	10Ω to 10MΩ (E24 Series)		
				F (±1%)	±100	10Ω to 2.2MΩ (E24,96 Series)		
		0.1W (1/10W)		D (±0.5%)	±100	10Ω to 97.6Ω (E24,96 Series)		
					±50	100Ω to 1MΩ (E24,96 Series)		
MCR18	3216 (1206)	0.25W (1/4W)	200	J (±5%)	±400	1.0Ω to 9.1Ω (E24 Series)		Yes
					±200	10Ω to 10MΩ (E24 Series)		
				F (±1%)	±100	10Ω to 2.2MΩ (E24,96 Series)		
		0.125W (1/8W)		D (±0.5%)	±100	10Ω to 97.6Ω (E24,96 Series)		
					± 50	100Ω to 1MΩ (E24,96 Series)		
MCR25	3225 (1210)	0.25W (1/4W)	200	J (±5%)	500±350	1.0Ω to 2.0Ω (E24 Series)		Yes
					±500	2.2Ω to 5.1Ω (E24 Series)		
					±200	5.6Ω to3.3MΩ (E24 Series)		
				F (±1%)	±100	10Ω to 1.0MΩ (E24,96 Series)		
MCR50	5025 (2010)	0.5W (1/2W)	200	J (±5%)	500±350	1.0Ω to 2.0Ω (E24 Series)		Yes
					±500	2.2Ω to 9.1Ω (E24 Series)		
					±200	10Ω to330kΩ (E24 Series)		
					±350	360kΩ to560kΩ (E24 Series)		
				F (±1%)	±100	10Ω to 180kΩ (E24,96 Series)		
MCR100	6432 (2512)	1W	200	J (±5%)	500±350	1.0Ω to 2.0Ω (E24 Series)	−55 to +125	Yes
					±500	2.2Ω to 9.1Ω (E24 Series)		
					±350	10Ω to 22Ω (E24 Series)		
					±200	24Ω to 100kΩ (E24 Series)		
				F (±1%)	±100	10Ω to 82kΩ (E24,96 Series)		

*1.Please contact us for the higher rated power.
*E24:Standard products E96:Custom products.

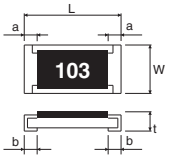
跳线型

Part No.	Size Code mm (inch)	Rated Current	Resistance	Temperature Range (℃)	Automotive Grade Available
MCR006	0603 (0201)	0.5A	50mΩ Max.	−55 to +155	Yes
MCR01	1005 (0402)	1A			Yes
MCR03	1608 (0603)	1A			Yes
MCR10	2012 (0805)	2A			Yes
MCR18	3216 (1206)	2A			Yes
MCR25	3225 (1210)	2A			Yes
MCR50	5025 (2010)	3A			Yes
MCR100	6432 (2512)	4A		−55 to +125	Yes

●MCR006/01
●MCR03 (Partially marked)



●MCR10/18/25/50/100

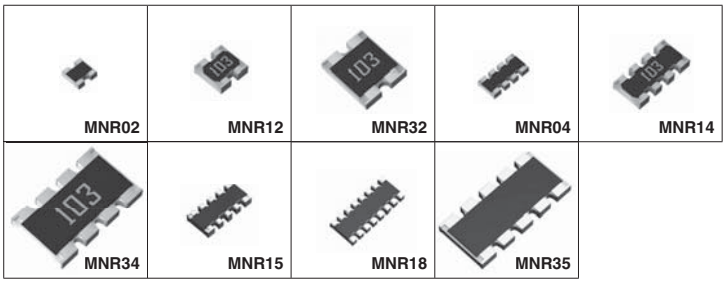


■Dimensions (Unit : mm)

Part No.	Size code mm (inch)	L	W	t	a	b
MCR006	0603 (0201)	0.6±0.03	0.3±0.03	0.23±0.03	0.1±0.05	0.15±0.05
MCR01	1005 (0402)	1.0±0.05	0.5±0.05	0.35±0.05	0.2±0.1	$0.25^{+0.05}_{-0.10}$
MCR03	1608 (0603)	1.6±0.1	0.8±0.1	0.45±0.1	0.3±0.2	0.3±0.2
MCR10	2012 (0805)	2.0±0.1	1.25±0.1	0.55±0.1	0.4±0.2	0.4±0.2
MCR18	3216 (1206)	3.2±0.15	1.6±0.15	0.55±0.1	0.5±0.25	0.5±0.25
MCR25	3225 (1210)	3.2±0.15	2.5±0.15	0.55±0.15	0.5±0.25	0.5±0.25
MCR50	5025 (2010)	5.0±0.15	2.5±0.15	0.55±0.15	0.6±0.25	0.6±0.25
MCR100	6432 (2512)	6.3±0.15	3.2±0.15	0.55±0.15	0.6±0.25	0.6±0.25

厚膜贴片电阻器（通用型）
贴片排阻（MNR系列＜1005×2 to 3216×5＞）

- 降低成本
  采用排阻，可减少贴装次数，节省贴装空间。
- 方便检查焊脚
  凸型电极有助于对焊脚进行目测检查。
  上述检查可以采用自动检测工具。
- 适用于上拉电阻，阻尼电阻。
- 无方向性，防止发生错误安装。



MNR系列（1005×2 to 3216×5）（AEC-Q200）

Part No.	Size Code mm (inch)	No. of Terminals	No. of Elements	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
MNR02	1005 (0402) ×2	4	2	0.063W / Element	25	J (±5%)	±200	10Ω to 1MΩ (E24 Series)	−55 to +155	Yes
MNR04	1005 (0402) ×4	8	4	0.063W / Element	25	J (±5%)	+500/−250 ±200	1Ω to 9.1Ω (E24 Series) 10Ω to 1MΩ (E24 Series)		Yes
MNR12	1608 (0603) ×2	4	2	0.063W / Element	50	J (±5%)	±200	10Ω to 1MΩ (E24 Series)		Yes
						F (±1%)	±100			
MNR14	1608 (0603) ×4	8	4	0.063W / Element	50	J (±5%)	±500 ±200	2.2Ω to 6.8Ω (E6 Series) 10Ω to 1MΩ (E24 Series)		Yes
						F (±1%)	±100	10Ω to 1MΩ (E24 Series)		
MNR32	3216 (1206) ×2	4	2	0.125W / Element	200	J (±5%)	±200	10Ω to 1MΩ (E24 Series)	−55 to +125	Yes
MNR34	3216 (1206) ×4	8	4	0.125W / Element	200	J (±5%)	±200	10Ω to 1MΩ (E24 Series)		Yes
MNR15	1608 (0603) ×5	10	8	0.031W / Element	12.5	J (±5%)	±200	56Ω to 100kΩ (E24 Series)		Yes
MNR18	1605 (0602) ×8	16	8	0.063W / Element	25	J (±5%)	±200	10Ω to 1MΩ (E24 Series)		Yes
MNR35	3216 (1206) ×5	10	8	0.063W / Element	50	J (±5%)	±200	56Ω to 100kΩ (E12 Series)		Yes

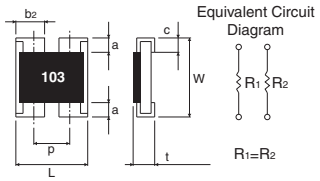
跳线型

Part No.	Size Code mm (inch)	Rated Current	Resistance	Temperature Range	Automotive Grade Available
MNR02	1005 (0402) ×2	1A / Element	50mΩ Max.	−55 to +155℃	Yes
MNR04	1005 (0402) ×4	1A / Element			Yes
MNR12	1608 (0603) ×2	1A / Element			Yes
MNR14	1608 (0603) ×4	1A / Element			Yes
MNR32	3216 (1206) ×2	2A / Element		−55 to +125℃	Yes
MNR34	3216 (1206) ×4	2A / Element			Yes
MNR18	1605 (0602) ×8	1A / Element			Yes

■Dimensions (Unit : mm)

●MNR02 / MNR12 / MNR32 （MNR02无标记）

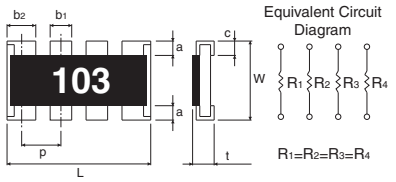
*标记方法有所不同。



Part No.	L	W	t	a	b2	c	p
MNR02	1.0±0.1	1.0±0.1	0.35±0.1	0.2±0.1	$0.33^{+0.1}_{-0.05}$	0.25±0.1	0.68
MNR12	1.6±0.1	1.6±0.1	0.5±0.1	0.3±0.2	0.6±0.15	0.25±0.15	0.8
MNR32	2.6±0.2	3.1±0.2	0.55±0.1	0.5±0.3	1.0±0.2	0.5Max.	1.27

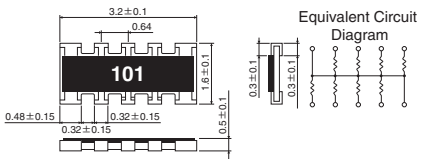
●MNR04 / MNR14 / MNR34 （MNR04无标记）

*标记方法有所不同。

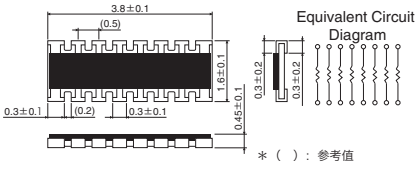


Part No.	L	W	t	a	b1	b2	c	p
MNR04	2.0±0.1	1.0±0.1	0.35±0.1	0.2±0.1	0.3±0.1	0.4±0.1	0.25±0.1	0.5
MNR14	3.2±0.1	1.6±0.1	0.5±0.1	0.3±0.2	0.4±0.15	0.6±0.15	0.25±0.15	0.8
MNR34	5.2±0.4	3.1±0.2	0.55±0.1	0.5±0.3	0.8±0.2	1.0±0.2	0.5Max.	1.27

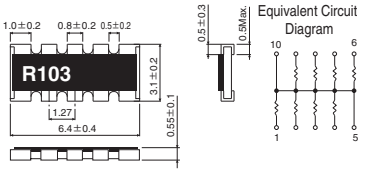
●MNR15



●MNR18



●MNR35



厚膜贴片电阻器（高可靠型）
高抗浪涌贴片电阻器（SDR系列）
抗浪涌贴片电阻器（系列ESR）

- 采用独创的电阻元件布线、微调技术，大幅提升抗电涌特性。
- 额定功率比通用系列产品大，有助于设备省空间设计。

SDR系列（AEC-Q200）

Part No.	Size Code mm (inch)	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
New SDR03	1608 (0603)	0.30W	150	J（±5%）	±200	1 to 10MΩ（E24 Series）	−55 to +155	Yes
				F（±1%）	±200 ±100	1 to 9.76Ω（E24,96 Series） 10 to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10 to 1MΩ（E24,96 Series）		

ESR系列（AEC-Q200）

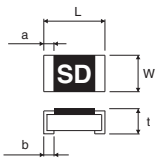
Part No.	Size Code mm (inch)	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
ESR01	1005 (0402)	0.2W (1/5W)	50	J（±5%）	+500/−250 ±200	1Ω to 9.1Ω（E24 Series） 10Ω to 10MΩ（E24 Series）	−55 to +155	Yes
				F（±1%）	±100	10Ω to 976kΩ（E24,96 Series） 1MΩ to 2.2MΩ（E24 Series）		
ESR03	1608 (0603)	0.25W (1/4W)	150	J（±5%）	±200	1Ω to 10MΩ（E24 Series）		Yes
				F（±1%）	±200 ±100	1Ω to 9.76Ω（E24,96 Series） 10Ω to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10Ω to 1MΩ（E24,96 Series）		
ESR10	2012 (0805)	0.4W (2/5W)	150	J（±5%）	±200	1Ω to 30MΩ（E24 Series）		Yes
				F（±1%）	±100	1Ω to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10Ω to 1MΩ（E24,96 Series）		
ESR18	3216 (1206)	0.33W (1/3W)	200	J（±5%）	±200	1Ω to 15MΩ（E24 Series）		Yes
				F（±1%）	±100	1Ω to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10Ω to 1MΩ（E24,96 Series）		
		☆0.5W (1/2W)	200	J（±5%）	±200	1Ω to 15MΩ（E24 Series）		
				F（±1%）	±100	1Ω to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10Ω to 1MΩ（E24,96 Series）		
ESR25	3225 (1210)	0.5W (1/2W)	200	J（±5%）	±200	1Ω to 10MΩ（E24 Series）		Yes
				F（±1%）	±100	1Ω to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10Ω to 1MΩ（E24,96 Series）		
		☆0.66W (2/3W)	200	J（±5%）	±200	1Ω to 10MΩ（E24 Series）		
				F（±1%）	±100	1Ω to 10MΩ（E24,96 Series）		
				D（±0.5%）	±100	10Ω to 1MΩ（E24,96 Series）		

*E24 : Standard products E96 : Custom Products
☆ : Under Development

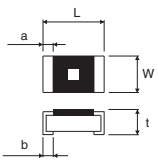
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	a	b
SDR03	1608 (0603)	1.6±0.1	0.8±0.1	0.45±0.1	0.25±0.1	0.25±0.1
ESR01	1005 (0402)	1.0±0.05	0.5±0.05	0.35±0.05	0.2±0.1	$0.25^{+0.05}_{-0.1}$
ESR03	1608 (0603)	1.6±0.1	0.8±0.1	0.45±0.1	0.3±0.2	0.3±0.2
ESR10	2012 (0805)	2.0±0.1	1.25±0.1	0.55±0.1	0.3±0.2	0.4±0.2
ESR18	3216 (1206)	3.2±0.15	1.6±0.15	0.55±0.1	0.3±0.25	0.5±0.25
ESR25	3225 (1210)	3.2±0.15	2.5±0.15	0.55±0.1	0.3±0.25	0.5±0.25

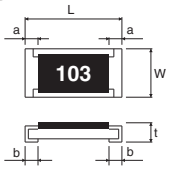
●SDR03



●ESR01/03

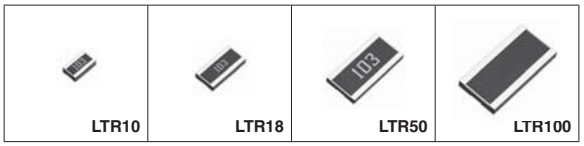


●ESR10/18/25



厚膜贴片电阻器（高可靠型）
大功率贴片电阻器<长边电极型>（LTR系列）

- 通过采用长边电极结构，大幅提升对于温度变化的连接可靠性。
- 额定功率比通用系列产品大，有助于设备省空间设计。
- 通过不使电流集中的电阻元件设计，大幅提升抗电涌特性。



LTR系列（AEC-Q200）

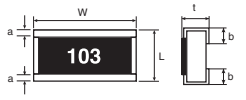
Part No.	Size Code mm (inch)	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
LTR10	1220 (0508)	0.25W (1/4W)	150	J (±5%)	±200	1Ω to 1MΩ (E24 Series)	−55 to +155	Yes
				F (±1%)	±100	1Ω to 1MΩ (E24,96 Series)		
				D (±0.5%)	±100	10Ω to 1MΩ (E24,96 Series)		
LTR18	1632 (0612)	0.75W (3/4W)	200	J (±5%)	±200	1Ω to 1MΩ (E24 Series)		Yes
				F (±1%)	±100	1Ω to 1MΩ (E24,96 Series)		
				D (±0.5%)	±100	10Ω to 1MΩ (E24,96 Series)		
LTR50	2550 (1020)	1W	200	J (±5%)	±200	1Ω to 1MΩ (E24 Series)		Yes
				F (±1%)	±100	1Ω to 1MΩ (E24,96 Series)		
				D (±0.5%)	±100	10Ω to 1MΩ (E24,96 Series)		
LTR100	3264 (1225)	2W	200	J (±5%)	±200	1Ω to 1MΩ (E24 Series)		Yes
				F (±1%)	±100	1Ω to 1MΩ (E24,96 Series)		
				D (±0.5%)	±100	10Ω to 1MΩ (E24,96 Series)		

*E24 : Standard products E96 : Custom Products

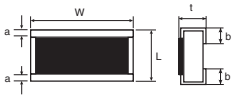
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	a	b
LTR10	1220 (0508)	1.2±0.1	2.0±0.1	0.55±0.1	0.25±0.1	0.35±0.2
LTR18	1632 (0612)	1.6±0.15	3.2±0.15	0.55±0.1	0.3±0.2	0.5±0.2
LTR50	2550 (1020)	2.5±0.15	5.0±0.15	0.55±0.1	0.38±0.2	0.9±0.2
LTR100	3264 (1225)	3.2±0.15	6.4±0.15	0.55±0.15	0.4±0.25	1.13±0.25

●LTR10/18/50

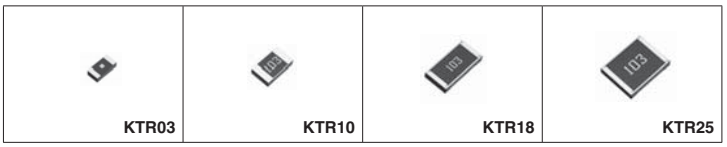


●LTR100



厚膜贴片电阻器（高可靠型）
高耐压贴片电阻器（KTR系列）

- 元件最高电压是通用系列产品的2倍以上。
- 最适合用于高电压负荷的分压电路。



KTR系列

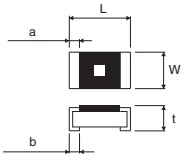
Part No.	Size Code mm (inch)	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
KTR03	1608 (0603)	0.1W (1/10W)	350	J (±5%)	±200	1Ω to 10MΩ (E24 Series)	−55 to +155	Yes
				F (±1%)	±100	1Ω to 10MΩ (E24,96 Series)		
KTR10	2012 (0805)	0.125W (1/8W)	400	J (±5%)	±200	1Ω to 30MΩ (E24 Series)		Yes
				F (±1%)	±100	1Ω to 10MΩ (E24,96 Series)		
KTR18	3216 (1206)	0.25W (1/4W)	500	J (±5%)	±200	1Ω to 15MΩ (E24 Series)		Yes
				F (±1%)	±100	1Ω to 10MΩ (E24,96 Series)		
KTR25	3225 (1210)	0.33W (1/3W)	600	J (±5%)	±200	1Ω to 10MΩ (E24 Series)		Yes
				F (±1%)	±100	1Ω to 10MΩ (E24,96 Series)		

*E24 : Standard products E96 : Custom Products

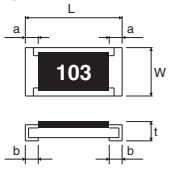
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	a	b
KTR03	1608 (0603)	1.6±0.1	0.8±0.1	0.45±0.1	0.3±0.2	0.3±0.2
KTR10	2012 (0805)	2.0±0.1	1.25±0.1	0.55±0.1	0.3±0.2	0.4±0.2
KTR18	3216 (1206)	3.2±0.15	1.6±0.15	0.55±0.1	0.3±0.25	0.5±0.25
KTR25	3225 (1210)	3.2±0.15	2.5±0.15	0.55±0.1	0.3±0.25	0.5±0.25

●KTR03



●KTR10/18/25



厚膜贴片电阻器（高可靠型）
抗硫化贴片电阻器：SFR系列

•采用罗姆独创的结构，大幅提升抗硫化性。

SFR系列（AEC-Q200）

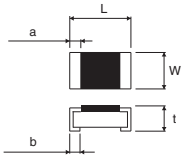
Part No.	Size Code mm (inch)	Rated Power (70℃)	Limiting Element Voltage (V)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
New SFR01	1005 (0402)	0.063W (1/16W)	50	J (±5%)	+500 / −250 ±200	1Ω to 9.1Ω (E24 Series) 10Ω to 10MΩ (E24 Series)	−55 to +155	Yes
				F (±1%)	±100	10Ω to 2.2MΩ (E24,96 Series)		
New SFR03	1608 (0603)	0.1W (1/10W)	50	J (±5%)	±400 ±200	1Ω to 9.1Ω (E24 Series) 10Ω to 10MΩ (E24 Series)		Yes
				F (±1%)	±100	10Ω to 10MΩ (E24,96 Series)		

*E24 : Standard products E96 : Custom Products

■尺寸 (Unit:mm)

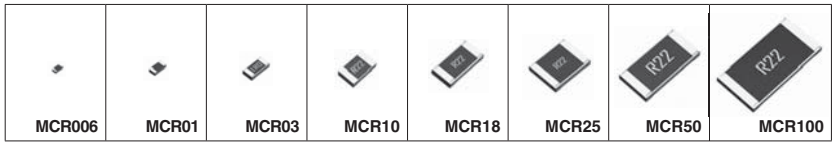
Part No.	Size Code mm (inch)	L	W	t	a	b
SFR01	1005 (0402)	1.0±0.05	0.5±0.05	0.35±0.05	0.33±0.08	0.25 +0.05 −0.10
SFR03	1608 (0603)	1.6±0.1	0.8±0.1	0.45±0.1	0.4±0.1	0.3±0.2

●SFR01/03



电流检测用贴片电阻器（厚膜型）
贴片电阻器（MCR低阻值系列）

•极低阻值（47mΩ），厚电阻体。
•采用了金属釉阻体的高可靠性贴片电阻器。



Low Ohmic MCR系列（AEC-Q200）

Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
☆MCR006	0603 (0201)	0.05W (1/20W)	F (±1%)	+600 / −200	1.0Ω to 9.1Ω (E24 Series)	−55 to +155	Yes
MCR01	1005 (0402)	0.063W (1/16W)	F (±1%)	±400	1.0Ω to 9.1Ω (E24 Series)		Yes
MCR03	1608 (0603)	0.1W (1/10W)	F (±1%)	±400	1.0Ω to 9.1Ω (E24 Series)		Yes
MCR10	2012 (0805)	0.25W (1/4W)	J (±5%)	*Table 1	0.047Ω to 0.91Ω (E24 Series)		Yes
			F (±1%)	*Table 1	0.047Ω to 9.1Ω (E24 Series)		
MCR18	3216 (1206)	0.25W (1/4W)	J (±5%)	*Table 1	0.047Ω to 0.91Ω (E24 Series)		Yes
			F (±1%)	*Table 1	0.047Ω to 9.1Ω (E24 Series)		
MCR25	3225 (1210)	0.5W (1/2W)	J (±5%)	300±300	0.047Ω to 0.091Ω (E24 Series)		Yes
				±200	0.1Ω to 0.91Ω (E24 Series)		
			F (±1%)	300±300	0.047Ω to 0.091Ω (E24 Series)		
				±200	0.1Ω to 9.1Ω (E24 Series)		
MCR50	5025 (2010)	0.5W (1/2W)	J (±5%)	*Table 1	0.047Ω to 0.91Ω (E24 Series)		Yes
			F (±1%)	*Table 1	0.047Ω to 9.1Ω (E24 Series)		
MCR100	6432 (2512)	1W	J (±5%)	*Table 1	0.047Ω to 0.91Ω (E24 Series)	−55 to +125	Yes
			F (±1%)	*Table 1	0.047Ω to 9.1Ω (E24 Series)		

☆: Under Development

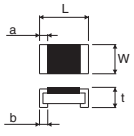
*Table 1

Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range
J (±5%) F (±1%)	500±300	0.047Ω to 0.091Ω (E24 Series)
	400±200	0.1Ω to 0.13Ω (E24 Series)
	±250	0.15Ω to 9.1Ω (E24 Series)

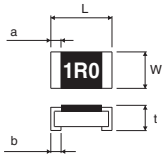
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	a	b
MCR006	0603 (0201)	0.6±0.03	0.3±0.03	0.23±0.03	0.1±0.05	0.15±0.05
MCR01	1005 (0402)	1.0±0.05	0.5±0.05	0.35±0.05	0.2±0.1	0.25 +0.05 −0.1
MCR03	1608 (0603)	1.6±0.1	0.8±0.1	0.45±0.1	0.3±0.2	0.3±0.2
MCR10	2012 (0805)	2.0±0.1	1.25±0.1	0.55±0.1	0.4±0.2	0.4±0.2
MCR18	3216 (1206)	3.2±0.15	1.6±0.15	0.55±0.1	0.5±0.25	0.5±0.25
MCR25	3225 (1210)	3.2±0.15	2.5±0.15	0.55±0.15	0.5±0.25	0.5±0.25
MCR50	5025 (2010)	5.0±0.15	2.5±0.15	0.55±0.15	0.6±0.25	0.6±0.25
MCR100	6432 (2512)	6.3±0.15	3.2±0.15	0.55±0.15	0.6±0.25	0.6±0.25

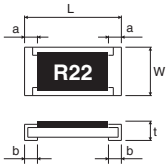
●MCR006/01



●MCR03



●MCR10/18/25/50/100



电流检测用贴片电阻器（厚膜型）
背面电极型 贴片电阻器（UCR系列）

- 电流检测用贴片电阻器。（11mΩ～）
- 采用背面贴装结果，减少贴装时的阻值偏差。
- 采用独创的散热设计，实现最佳额定功率。

UCR系列（AEC-Q200）

Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
New UCR006	0603 (0201)	0.1W (1/10W)	J （±5%）	0 to 300	100mΩ to 910mΩ （E24 Series）	−55 to +155	Yes
			F （±1%）				
UCR01	1005 (0402)	0.125W (1/8W)	J （±5%）	0 to 300 0 to 250 0 to 200	68mΩ to 91mΩ （E24 Series） 100mΩ to 200mΩ （E24 Series） 220mΩ to 910mΩ （E24 Series）		Yes
			F （±1%）				
UCR03	1608 (0603)	0.25W (1/4W)	J （±5%）	0 to 250 0 to 200 0 to 150	20mΩ to 47mΩ （E24 Series） 51mΩ to 91mΩ （E24 Series） 100mΩ to 200mΩ （E24 Series）		Yes*1
			F （±1%）				
		0.2W (1/5W)	J （±5%）	0 to 150	220mΩ to 910mΩ （E24 Series）		
			F （±1%）				
UCR10	2012 (0805)	0.33W (1/3W)	J （±5%）	250±200 0 to 250 0 to 150	11mΩ to 18mΩ （E24 Series） 20mΩ to 47mΩ （E24 Series） 51mΩ to 100mΩ （E24 Series）		Yes
			F （±1%）	0 to 250 0 to 150	11mΩ to 47mΩ （E24 Series） 51mΩ to 100mΩ （E24 Series）		
UCR18	3216 (1206)	0.5W (1/2W)	J （±5%）	0 to 350 0 to 200 0 to 150	11mΩ to 18mΩ （E24 Series） 20mΩ to 39mΩ （E24 Series） 43mΩ to 100mΩ （E24 Series）		Yes
			F （±1%）				
		☆1.0W	J （±5%）	0 to 350 0 to 200	11mΩ to 18mΩ （E24 Series） 20mΩ to 39mΩ （E24 Series）		Yes
			F （±1%）				

*1 Only for 100mΩ and above
☆ : Under Development

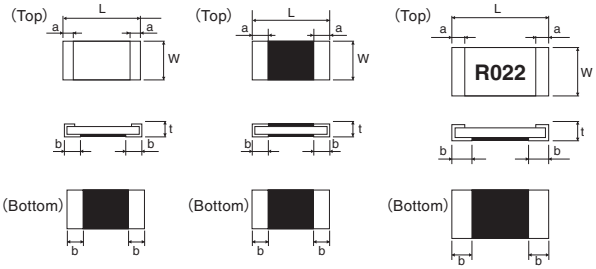
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	a	b
UCR006	0603 (0201)	0.64±0.05	0.34±0.05	0.28±0.05	0.16±0.1	0.22±0.1
UCR01	1005 (0402)	1.0±0.1	0.55±0.1	0.37±0.05	0.28±0.1	0.34±0.1
UCR03	1608 (0603)	1.6±0.1	0.87±0.1	0.5±0.1	0.45±0.2	0.45±0.2
UCR10	2012 (0805)	2.0±0.1	1.25±0.1	0.55±0.1	0.24±0.2	0.5±0.2
UCR18	3216 (1206)	3.2±0.15	1.6±0.15	0.55±0.1	0.3±0.2	0.9±0.25

●UCR006/01
●UCR03
（50mΩ≦R≦910mΩ）

●UCR03
（20mΩ≦R＜50mΩ）

●UCR10/18



电流检测用贴片电阻器（厚膜型）
大功率贴片电阻器＜长边电极型＞（LTR低阻值系列）

- 电流检测用贴片电阻器。（10mΩ～）
- 通过采用长边电极结构，大幅提高对于温度变化的连接可靠性。
- 额定功率大，可与小尺寸产品进行替换。

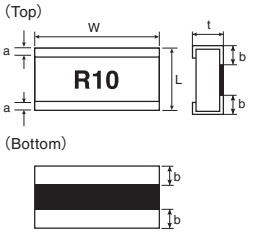
Low Ohmic MCR系列（AEC-Q200）

Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Range	Operating Temperature Range (℃)	Automotive Grade Available
LTR10	1220 (0508)	0.5W (1/2W)	J (±5%)	±150	47mΩ to 9.1Ω (E24 Series)	−55 to +155	Yes
			F (±1%)				
LTR18	1632 (0612)	1W	J (±5%)	0 to 300 0 to 200 0 to 150	10mΩ to 18mΩ (E24 Series) 20mΩ to 47mΩ (E24 Series) 51mΩ to 470mΩ (E24 Series)		Yes
			F (±1%)	±100	510mΩ to 1Ω (E24 Series)		
LTR100	3264 (1225)	2W	J (±5%)	±200	100mΩ to 910mΩ (E24 Series)		Yes
			F (±1%)	0 to 150	100mΩ to 910mΩ (E24 Series)		

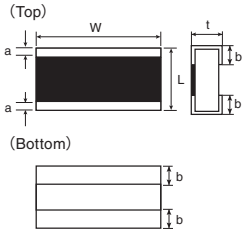
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	a	b
LTR10	1220 (0508)	1.2±0.1	2.0±0.1	0.55±0.1	0.3±0.2	0.35±0.2
LTR18	1632 (0612)	1.6±0.1	3.2±0.1	0.58±0.1	0.5±0.2	0.5±0.2
LTR100	3264 (1225)	3.2±0.15	6.4±0.15	0.55±0.15	0.4±0.25	1.13±0.25

●LTR10

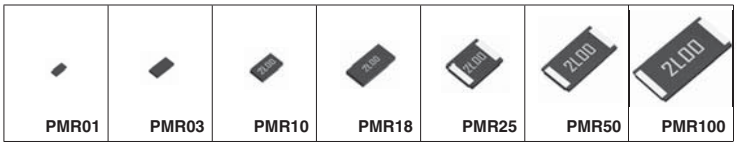


●LTR18/100 (No marking)



电流检测用贴片电阻器（金属板型）
超低阻值分流电阻器（PMR系列）

- 超低阻值范围（1mΩ～）
- 采用无切割结果，避免热集中，减少表面温度上升。
- 电阻体采用特殊合金，实现优异的温度特性。



PMR系列（AEC-Q200）

Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Value (mΩ)	Operating Temperature Range (℃)	Automotive Grade Available
New PMR01	1005 (0402)	0.2W (1/5W)	J (±5%)	0～200	10	−55 to +155	Yes
PMR03	1608 (0603)	0.25W (1/4W)	J (±5%) F (±1%)	0～150	10 (☆5)		Yes
PMR10	2012 (0805)	0.5W (1/2W)	J (±5%) F (±1%)	±150	2,3,4,5,6, 7,8,9,10		Yes
PMR18	3216 (1206)	1W	J (±5%) F (±1%)	±100	1,2,3,4,5,6, 7,8,9,10		Yes
PMR25	3225 (1210)	1W	J (±5%) F (±1%)	±100	1,2,3,4,5		Yes
PMR50	5025 (2010)	1W	J (±5%) F (±1%)	±100	1,2,3,4,5, 6,7,8,9,10		Yes
PMR100	6432 (2512)	2W	J (±5%)	±150	1,2		Yes
			F (±1%)	±100	3,4,5,6,7,8,9,10		
		☆3W	J (±5%) F (±1%)	±150	1,2		

☆ : Under Development

大电流跳线类型

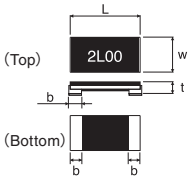
Part No.	Size Code mm (inch)	Rated Current	Resistance	Temperature Range (℃)	Automotive Grade Available
PMR01	1005 (0402)	20.0A	0.5mΩ Max.	−55 to +155	Yes
PMR03	1608 (0603)	22.4A			Yes
PMR10	2012 (0805)	31.6A			Yes
PMR18	3216 (1206)	38.7A			Yes
PMR25	3225 (1210)	44.7A			Yes
PMR50	5025 (2010)	50.0A			Yes
PMR100	6432 (2512)	63.2A			Yes

■尺寸 (Unit : mm)

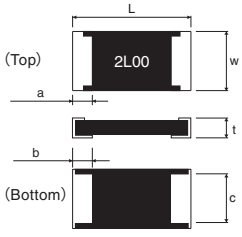
Part No.	Size Code mm (inch)	L	W	t	a	b	c
PMR01	1005 (0402)	1.0±0.05	0.5±0.05	0.25±0.1	—	0.30±0.10	—
PMR03	1608 (0603)	1.6±0.15	0.8±0.15	0.25±0.1	—	0.35±0.15	—
PMR10	2012 (0805)	2.0±0.15	1.2±0.15	0.42～0.28*±0.15	—	0.75～0.35*±0.25	—
PMR18	3216 (1206)	3.2±0.15	1.6±0.15	0.42～0.28*±0.15	—	1.20～0.5 *±0.25	—
PMR25	3225 (1210)	3.2±0.2	2.5±0.2	0.52～0.32*±0.15	0.5±0.2	1.00～0.8 *±0.2	1.95±0.2
PMR50	5025 (2010)	5.0±0.2	2.5±0.2	0.52～0.32*±0.15	0.5±0.2	1.85～0.9 *±0.2	1.95±0.2
PMR100	6432 (2512)	6.4±0.25	3.2±0.25	0.52～0.32*±0.15	0.5±0.25	2.3 ～1.1 *±0.25	2.65±0.25

* Development schedule will vary depending on resistance value. Please Contacts us.

●PMR01/03 (No marking)
●PMR10/18

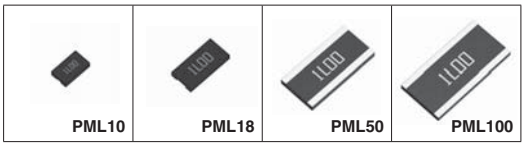


●PMR25/50/100



电流检测用贴片电阻器（金属板型）
超低阻值分流电阻器＜长边电极型＞（PML系列）

- 超低阻值范围（0.5mΩ～）。
- 采用长边电极结构，提高结合可靠性和散热性。
- 采用无切割结构，避免热集中，减少表面温度上升。



PML系列（AEC-Q200）

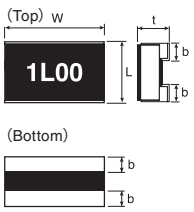
Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Value (mΩ)	Operating Temperature Range (℃)	Automotive Grade Available
PML10	1220 (0508)	0.66W	J (±5%) G (±2%)	±200	1.0, 1.5, 2.0, 2.5	−55 to +155	Yes
PML18	1632 (0612)	1W	J (±5%) G (±2%)	±150	0.5, 1.0, 1.5, 2.0, 2.5		Yes
New PML50	2550 (1020)	2W	J (±5%)	±200	0.5, 1.0, 1.5, 2.0, 2.2		Yes
PML100	3264 (1225)	2W (3W at 25℃)	J (±5%)	±100	1.0, 1.5, 2.0, 2.2		Yes
		2W		±150	0.5		

■尺寸 (Unit : mm)

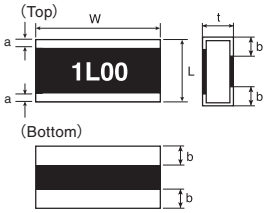
Part No.	Size Code mm (inch)	L	W	t	a	b
PML10	1220 (0508)	1.2±0.15	2.0±0.15	0.42±0.15	—	0.45~0.3* ±0.2
PML18	1632 (0612)	1.6±0.15	3.2±0.15	0.42~0.28* ±0.15	—	0.55~0.3* ±0.2
PML50	2550 (1020)	2.5±0.2	5.0±0.2	0.52~0.32* ±0.15	0.4±0.2	1.0~0.5* ±0.2
PML100	3264 (1225)	3.2±0.25	6.4±0.25	0.5~0.36* ±0.15	0.45±0.25	0.9~0.7* ±0.25

*Each value range varies with the resistance. Please contact ROHM sales representative for further details.

●PML10/18



●PML50/100



电流检测用贴片电阻器（金属板型）
大功率超低阻值分流电阻器（PSR系列）

- 3W～5W大功率
- 超低阻值范围（0.2mΩ～）。
- 优异的温度特性
- 采用凸型形状

PSR系列（AEC-Q200）

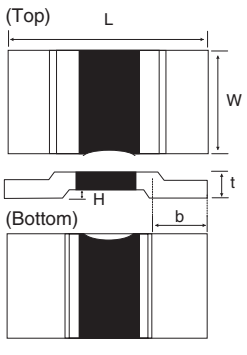
Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Value (mΩ)	Operating Temperature Range (℃)	Automotive Grade Available
☆PSR100	6432 (2512)	3W	F (±1%)	±175	0.3, 0.5	−55 to +170	Under development
				±100	1.0		
				±75	2.0, 3.0		
New PSR400	10×5.2 (3921)	4W	F (±1%)	±175	0.3, 0.5		Yes
				±75	1.0, 2.0, 3.0		
New PSR500	15×7.75 (5931)	5W	F (±1%)	±225	0.2		Yes
				±150	0.3, 0.4, 0.5		
				±75	1.0, 2.0		

*1 (+20℃ to +125℃)
☆ : Under Development

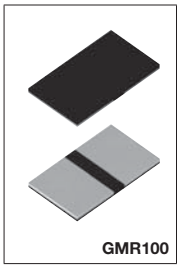
■尺寸 (Unit : mm)

Part No.	Size Code mm (inch)	L	W	t	H	b
PSR100	0.3mΩ	6.35±0.15	3.05±0.25	1.30±0.15	0.35±0.15	1.12±0.3
	0.5mΩ			1.15±0.15		
	1.0mΩ			0.75±0.15		
	2.0mΩ			1.00±0.15		
	3.0mΩ			0.75±0.15		
PSR400	0.3mΩ	10±0.3	5.2±0.3	1.85±0.15	0.5±0.1	2.0±0.6
	0.5mΩ			1.3±0.15		
	1.0mΩ			0.9±0.15		
	2.0mΩ			1.1±0.15		
	3.0mΩ			0.9±0.15		
PSR500	0.2mΩ	15±0.3	7.75±0.3	1.85±0.15	0.5±0.1	4.0±0.6
	0.3mΩ			1.4±0.15		
	0.4mΩ			1.15±0.15		
	0.5mΩ			1.05±0.15		
	1.0mΩ			1.3±0.15		
	2.0mΩ			0.9±0.15		

●PSR400/500



电流检测用贴片电阻器（金属板型）
大功率 超低阻值 分流电阻器：GMR系列


GMR100

- 3W大功率
- 优异的散热性能
- 优异的温度特性
- 阻值范围5mΩ～220mΩ

GMR系列（AEC-Q200）

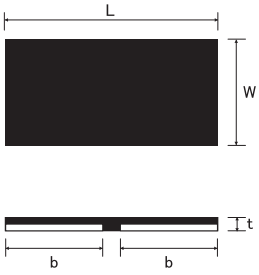
Part No.	Size Code mm (inch)	Rated Power (70℃)	Tolerance	Temperature Coefficient (ppm/℃)	Resistance Value (mΩ)	Operating Temperature Range (℃)	Automotive Grade Available
☆GMR100	6432 (2512)	3W	J（±5%） F（±1%）	±20	5mΩ to 220mΩ（E6 Series*2）	−55 to +170	Under development

*1（+20℃ to +60℃）
*2 Please contact us for another standard nominal resistance value. please contacts us.
☆ : Under development（Development schedule will vary depending on resistance value. Please Contacts us.）

■尺寸（Unit : mm）

Part No.	Size Code mm (inch)	L	W	t	b
GMR100	6432 (2512)	6.40±0.25	3.20±0.25	0.40±0.15	2.75±0.25

●GMR100



标准公称阻值等

E3	10				22				47								
E6	10		15		22		33		47		68						
E12	10	12	15	18	22	27	33	39	47	56	68	82					
E24	10	11	12	13	15	16	18	20	22	24	27	30	33	36	39	43	47
	51	56	62	68	75	82	91										
E96	100	102	105	107	110	113	115	118	121	124	127	130	133	137	140	143	147
	150	154	158	162	165	169	174	178	182	187	191	196	200	205	210	215	221
	226	232	237	243	249	255	261	267	274	280	287	294	301	309	316	324	332
	340	348	357	365	374	383	392	402	412	422	432	442	453	464	475	487	499
	511	523	536	549	562	576	590	604	619	634	649	665	681	698	715	732	750
	768	787	806	825	845	866	887	909	931	953	976						

■公称阻值

属同一公称范围的系列电阻器如上表所示。
公称阻值由右表所示公比决定。

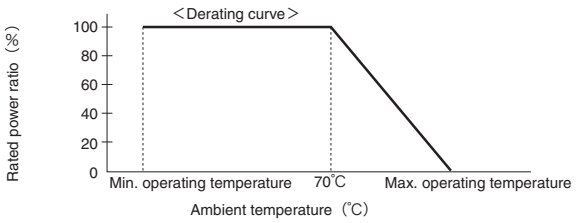
（关于阻值容差）
如果阻值容差为±5%，公称阻值用3位数表示；若电阻公差为±1%，公称电阻用4位数表示。其中前2位或前3位数表示有效数字，后一位表示10的幂数。此外字母R表示小数点。

例1　22Ω→22×10⁰Ω→220（最后一位数字“0”表示10的0次方）
例2　47kΩ→47×10³Ω→473（最后一位数字“3”表示10的3次方）
例3　1.2MΩ→12×10⁵Ω→125（最后一位数字“5”表示10的5次方）
例4　2.7Ω→2R7（R表示小数点/对象为小于10Ω的低阻值）
例5　1130Ω→113×10¹Ω→1131（最后一位数字“1”表示10的1次方/阻值）
例6　0.10Ω→R10
例7　1mΩ→1L0

Series	Common ratio	Remarks
E6	$\sqrt[6]{10}$≒1.46	Rounded off to a 2-digit figure.
E12	$\sqrt[12]{10}$≒1.21	
E24	$\sqrt[24]{10}$≒1.10	
E96	$\sqrt[96]{10}$≒1.02	Rounded off to a 3-digit figure.

■关于额定功率的补充

・若环境温度超过稳定环境温度，则根据额定参量曲线减低负载功率。



■有关电阻器使用的基本事项，请参见日本电子资讯技术产业学会（JEITA）发行的技术报告JEITA RCR-2121A[电子产品中的固定电阻使用指南（电子产品中的固定电阻安全使用指南）]

■补充注释

*1.若电阻的负载为瞬载（过大负载，如脉冲），请务必将产品安装于电路板进行性能的评估及确认。若电压持续超过额定电压，则会降低电阻器的性能和可靠性。请勿将大于电阻器的额定电压加于任何罗姆电阻上。
*2.额定电压（V）=$\sqrt{\text{额定功率（W）}\times\text{公称阻值（Ω）}}$ 的值或者电路最高电压（比较小者为准）

贴片 LED

红色（V、U）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600	1600 to 2500	2500 to 3120
Mold Type	1608	0.55	20										New SML-D15VW (C)								
													SML-D14VW (C) *								
												SML-D13VW (C) *									
											SML-D12V8W (C)										
													New SML-D15UW (C)								
													New SML-D15U2W (C)								
													SML-D14U2W (C) *								
												SML-D13UW (C) *									
											SML-D12U8W (C)										
	20125	0.8	20							SML-H12V8T (C)											
											SML-H12U8T (C)										
PLCC2	3528	1.9	20									SML-Z14VT (C) *									
														SML-Z14UT (C) *							
Reverse Mount	34125	1.1	10						SML-811VT (C) *												
									SML-811UT (C) *												
Lens	1608	1.24	20											☆ CSL0901VT (C)							
														☆ CSL0901UT (C)							

橙色（D）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600	1600 to 2800
Mold Type	1608	0.55	20											New SML-D15DW (C)						
														SML-D14DW (C) *						
														SML-D13DW (C) *						
													SML-D12D8W (C)							
	20125	0.8	20										SML-H12D8T (C)							
PLCC2	3528	1.9	20												SML-Z14DT (C) *					
Reverse Mount	34125	1.1	10							SML-811DT (C) *										
Lens	1608	1.24	20													☆ CSL0901DT (C)				

黄色（Y、W）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600	1600 to 2800
Mold Type	1608	0.55	2				SML-D12W8W (C) *													
			20												☆SML-D15WW (C)					
															New SML-D15YW (C)					
														SML-D14YW (C) *						
														SML-D14WW (C) *						
													SML-D13WW (C) *							
												SML-D12Y8W (C)								
	20125	0.8	20									SML-H12Y8T (C)								
PLCC2	3528	1.9	20												SML-Z14YT (C) *					
Reverse Mount	34125	1.1	10							SML-811WT (C) *										
Lens	1608	1.24	20												☆ CSL0901YT (C)					
															☆ CSL0901WT (C)					

绿色（M、P、F）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1800	1800 to 2500
Mold Type	1608	0.55	20										New SML-D15MW (C)								
												☆SML-D15PW (C)									
													SML-D14MW (C) *								
												SML-D13MW (C) *									
											SML-D13FW (C)										
								SML-D12P8W (C)													
											SML-D12M8W (C)										
	20125	0.8	20								SML-H12M8T (C)										
								SML-H12P8T (C)													
PLCC2	3528	1.9	20										SML-Z14MT (C) *								
											SML-Z14PT (C) *										
												SML-Z14FT (C) *									
Lens	1608	1.24	20											☆ CSL0901MT (C)							
											☆ CSL0901PT (C)										

蓝绿色（E）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	9.0 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900	900 to 1400	1400 to 2200	2200 to 3600	3600 to 5600
PLCC2	3528	1.9	20										SMLZ14EGT (C) *				

蓝色（B）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	0.9 to 1.4	1.4 to 2.2	2.2 to 3.6	3.6 to 5.6	5.6 to 9.0	9 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900	900 to 1400
Reflector	20125	0.8	5							SMLMN2BCT (C)									
PLCC2	3528	1.9	20												SMLZ14BGT (C)				

白色（WB）光度一览表

Package Structure	Size	Height (mm)	Luminous (mcd) / I_F (mA)	9 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900	900 to 1100	1100 to 1400	1400 to 1800	1800 to 2200	2200 to 2800	2800 to 3600	3600 to 7000	7000 to 8500
Reflector	20125	0.8	5					SMLMN2WB1CW (C)													

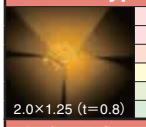
* : Half size products are also available.　* : Luminosity shown in the specifications includes ±10% error.　Note）Refer to the specifications for grade mark.　☆ : Under Development

贴片 LED

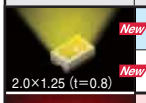
〈Mold Type（1608）〉（AEC-Q101）

Package Size（mm）	Part No.	Emitting Color	Absolute Maximum Ratings（Ta＝25°C） Power Dissipation PD (mW)	Forward Current IF (mA)	Peak forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Electrical Characteristics（Ta＝25°C） Reverse Voltage VF Typ. (V)	IF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λD Typ.* (nm)	IF (mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	IF (mA)
	SML-D12W8W（C）	Yellow	52	20	100*1	12	−40 to ＋100	−40 to ＋100	2.0	2	10	12	587.5	2	4.5	7.1	2
	SML-D12V8W（C）	Red	54	20	100*1	5	−40 to ＋85	−40 to ＋100	2.2	20	10	5	630	20	16	40	20
	SML-D12U8W（C）	Red											625		25	63	
	SML-D12D8W（C）	Orange											605		40	100	
	SML-D12Y8W（C）	Yellow											590		25	63	
	SML-D12M8W（C）	Yellowish-Green											572		10	25	
	SML-D12P8W（C）	Green	67	25									560		2.5	6.3	
	SML-D13VW（C）	Red	72	30	100*1	5	−40 to ＋100	−40 to ＋100	2.0	20	10	5	630	20	35.5	55	20
	SML-D13UW（C）	Red							(2.0)				620		56	85	
	SML-D13DW（C）	Orange											605		71	120	
	SML-D13WW（C）	Yellow	75						(2.1)				587			110	
	SML-D13MW（C）	Yellowish-Green							2.1				571		28	45	
	SML-D13FW（C）	Green	75										564		18	22	
	SML-D14VW（C）	Red	72	30	100*1	5	−40 to ＋100	−40 to ＋100	2.0	20	10	5	630	20	71	100	20
	SML-D14U2W（C）	Red	75										615		90	160	
	SML-D14DW（C）	Orange											605		112	200	
	SML-D14YW（C）	Yellow							2.1				590		112	200	
	SML-D14WW（C）	Yellow											587		112	180	
	SML-D14MW（C）	Yellowish-Green							(2.1)				571		35.5	60	
	New SML-D15VW（C）	Red	84	35	100*1	5	−40 to ＋100	−40 to ＋100	(2.0)	20	(10)	5	630	20	(71)	(90)	20
	New SML-D15UW（C）	Red											620		(90)	(112)	
	New SML-D15U2W（C）	Red											615		(112)	(140)	
	New SML-D15DW（C）	Orange											605		(180)	(224)	
	New SML-D15YW（C）	Yellow							2.1				590				
	☆SML-D15WW（C）	Yellow	87										587				
	New SML-D15MW（C）	Yellowish-Green							(2.1)				571		(56)	(71)	
1.6×0.8（t＝0.55）	☆SML-D15PW（C）	Green											560		(18)	(22.4)	

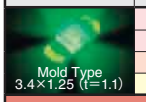
〈Mold Type（20125）〉（AEC-Q101）

Package Size（mm）	Part No.	Emitting Color	Absolute Maximum Ratings（Ta＝25°C） Power Dissipation PD (mW)	Forward Current IF (mA)	Peak forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Electrical Characteristics（Ta＝25°C） Reverse Voltage VF Typ. (V)	IF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λD Typ.* (nm)	IF (mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	IF (mA)
	SML-H12V8T（C）	Red	54	20	100*1	5	−40 to ＋85	−40 to ＋100	2.2	20	10	5	630	20	16	25	20
	SML-H12U8T（C）												620		25	40	
	SML-H12D8T（C）	Orange											605		40	63	
	SML-H12Y8T（C）	Yellow											590				
	SML-H12M8T（C）	Yellowish-Green											572		10	25	
2.0×1.25（t＝0.8）	SML-H12P8T（C）	Green											560		2.5	4.0	

折射型（AEC-Q101）

Package Size（mm）	Part No.	Emitting Color	Absolute Maximum Ratings（Ta＝25°C） Power Dissipation PD (mW)	Forward Current IF (mA)	Peak forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Electrical Characteristics（Ta＝25°C） Reverse Voltage VF Typ. (V)	IF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λD Typ.* (nm)	IF (mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	IF (mA)
	New SMLMN2BCT(C)	Blue	68	20	100*1	12	−40 to ＋100	−40 to ＋100	2.9	5	10	5	470	5	14	36	5
2.0×1.25（t＝0.8）	New SMLMN2WB1CW(C)	White											(x,y)（0.30,0.28）		56	140	
	SML-Z14VT(C)	Red	168	70	200*1	12	−40 to ＋100	−40 to ＋100	1.9	20	10	12	630	20	56	112	20
	SML-Z14UT(C)	Red											620		112	224	
	SML-Z14DT(C)	Orange											605		140	280	
	SML-Z14YT(C)	Yellow	175						2.0				589		140	280	
	SML-Z14MT(C)	Yellowish-Green											571		45	90	
	SML-Z14FT(C)	Green											564		22.4	45	
	SML-Z14PT(C)	Green											560		11.2	22.4	
PLCC2 3.5×2.8（t＝1.9）	SMLZ14EGT(C)	Yellowish-Green	120	30	100*1	5			3.4			5	528		710	1,100	
	SMLZ14BGT(C)	Blue	114						3.3				470		140	280	

〈可背面贴装型〉（AEC-Q101）

Package Size（mm）	Part No.	Emitting Color	Absolute Maximum Ratings（Ta＝25°C） Power Dissipation PD (mW)	Foreard Current IF (mA)	Peak forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Electrical Characteristics（Ta＝25°C） Reverse Voltage VF Typ. (V)	IF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λD Typ.* (nm)	IF (mA)	Luminous Lntensity Iv Min. (mcd)	Typ. (mcd)	IF (mA)
	SML-811VT（C）	Red	62	25	100*1	5	−40 to ＋85	−40 to ＋100	1.95	10	100	5	630	10	11.2	22.4	10
	SML-811UT（C）												620				
Mold Type 3.4×1.25（t＝1.1）	SML-811DT（C）	Orange											605				
	SML-811WT（C）	Yellow											590		14	28	

〈表面贴圆型〉（AEC-Q101）

Package Size（mm）	Part No.	Emitting Color	Absolute Maximum Ratings（Ta＝25°C） Power Dissipation PD (mW)	Forward Current IF (mA)	Peak forward Current IFP (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Electrical Characteristics（Ta＝25°C） Reverse Voltage VF Typ. (V)	IF (mA)	Reverse Current IR Max. (μA)	VR (V)	Dominant Wavelength λD Typ.* (nm)	IF (mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	IF (mA)
	☆CSL0901VT（C）	Red	50	20	100*1	12	−40 to ＋100	−40 to ＋100	2	20	10	12	630	20	(112)	174	20
	☆CSL0901UT（C）	Red											620		(112)	185	
	☆CSL0901DT（C）	Orange											605		(224)	405	
	☆CSL0901YT（C）	Yellow											590		(180)	320	
	☆CSL0901WT（C）	Yellow											587		(180)	290	
	☆CSL0901MT（C）	Yellowish-Green											572		(71)	140	
1.6×0.8（t＝1.24）	☆CSL0901PT（C）	Green											560		(18)	34.0	

*1:Duty1/10, 1kHz
*: The white color marked with chromaticity coordinates (x, y)
Note) corresponding AEC-Q101 or predetermined corresponding products.

( ) : Reference Value ☆ : Under Development

品名索引

品名索引

垂直统合型生产体制实现的高品质与稳定供应

原材料的严格控制

硅锭拉制到晶圆制造。

硅原石

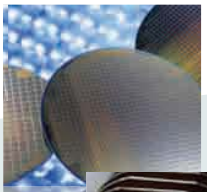
自产光掩膜

从IC芯片设计布线到光掩膜制造，通过贯穿始终的品质管理追求高品质。

Silicon Ingot

CAD

Photo Mask



Wafer Process

Si 硅

SiC 碳化硅

Wafer

SiCrystal AG

SiCrystal公司是2009年成为罗姆集团旗下一员的德国SiC单晶晶圆制造商。

高 品 质

在所有工序实现高品质

罗姆以[质量第一]为企业目的并始终坚守这一目标。根据[垂直统合型生产体制]在集团内部实施开发、设计晶圆制造以及生产、销售、服务，并在所有工序贯彻实施提高品质的活动。同时具有卓越的可追溯性，建立起是客户放心使用的体制。

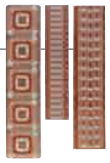
稳 定 供 应

举集团之全力履行供应责任

罗姆集团积极捕捉市场动态，持续履行所需产品的供货责任。通过一条龙生产为轴心的垂直整合型生产体制，自己管理生产工序，由此构建了一个与一般的无制造业务的供应商和专门负责生产的供应商相比，难以受到外部影响的体制，坚持不懈地为客户提供稳定供应。

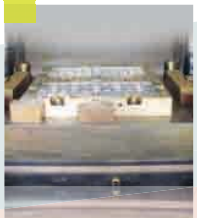
自产模具及引线框架

为确保高品质，引线框架冲压模具及成型模具全部内部产生。



最尖端封装

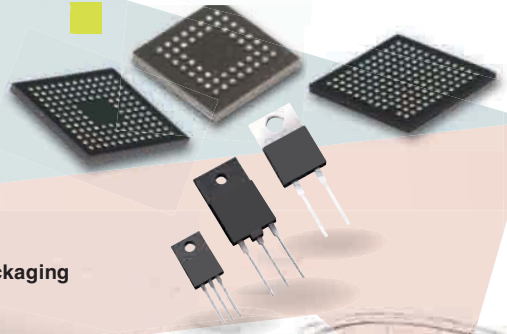
具有CSP、BGA、COC、COF、堆叠封装等最先进的组装技术。



Frame & Dies

Assembly Line

Packaging



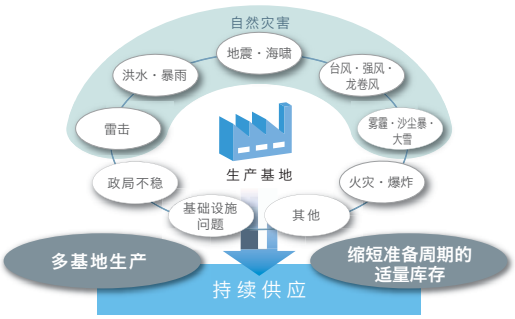
自行开发生产系统

罗姆自行开发的生产系统，可细致周到地满足客户的需求。

自行开发生产系统

BCM体制

基于风险验证对所有的生产基地实施诊断，持续强化BCM体制。



针对车载级产品的举措

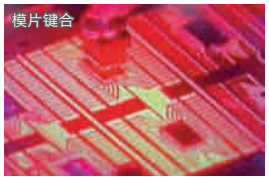
罗姆以[质量第一]为企业目的，追求高品质和创新性生产，
并绝对保证交货期从而令客户放心。
实行一条龙生产为中心的垂直统合型生产体制，履行供应责任。
罗姆为确保可靠性，实施了各种举措。

举措 例

质量实时检查

从硅锭拉制到晶圆制造工序、测试工序、组装工序、出货检查，在每个工序加入了加工同时检查做工的筛查方法。

罗姆独有的质量实时检查 Real Time Work & Check



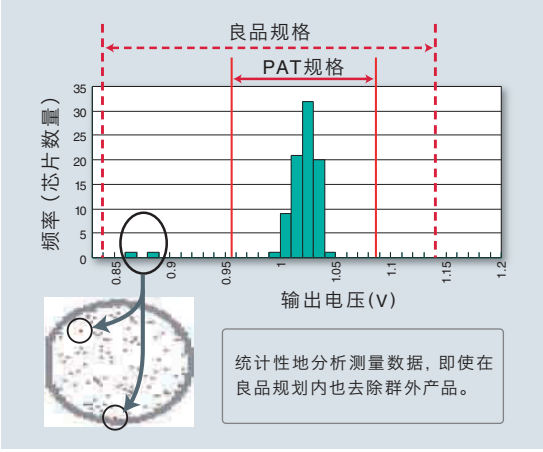
模片键合的同时检查做工

引线键合的同时检查做工

PAT系统的引入(符合AEC准则)

PAT系统是统计性地分析测量数据，在良品规格内去除群外产品的系统。
出货时即使被判断为合格产品，但在该批次的分布中处于群外时，因具有成为不良品的潜在特性，从而将其去除。这是为以防万一实施的检查，防止不良品流出。

PAT系统 PAT: Part Average Testing(元器件平均化测试)



车载专用生产线

车载产品在车载专用生产线上生产，只有通过专门测试并获得认证资格的车载专用操作员才能从事生产作业。Machine及Man都是车载专用，从而建立更高等级的生产环境。

生产线区分及4M差别化

车载专用生产线作为HR（High-Reliability）生产线与一般产品分开对应。

认证袖标

举措 概要（IC案例）

型号设计	型号测试设计	型号认证测试
Robust设计/各种保护电路设计/击穿耐性提高设计/可测性设计/限制特性评估	所有芯片　高温／常温／低温条件下测定／ 所有芯片　HV-Stress测试/PAT系统引入	JEITA基础。支持JEDEC/AEC-Q100•AEC-Q101: •长期可靠性测试　•根据WLR数据进行寿命预测 •静电破坏测试

晶圆工艺管理	组装工艺管理	可追溯性、保留样品、工序内不良品解析等
SPC管理／实时监视／所有芯片缺陷检测	主要加工点实时Work&Check/保证做工（X线内部检查、回流焊筛查等）4M固定化	重要保安用途 所有批次保留样品10年/工序内不良品解析（对所有批次实施）等

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主要销售网点

京都	名古屋	松本	仙台
东京	福冈	水户	高崎
横滨		西东京	宇都宫

生产网点

ROHM Hamamatsu Co., Ltd.
ROHM Wako Co., Ltd.
ROHM Apollo Co., Ltd.
ROHM Mechatech Co., Ltd.
LAPIS Semiconductor Miyagi Co., Ltd.
LAPIS Semiconductor Miyazaki Co., Ltd.

开发网点

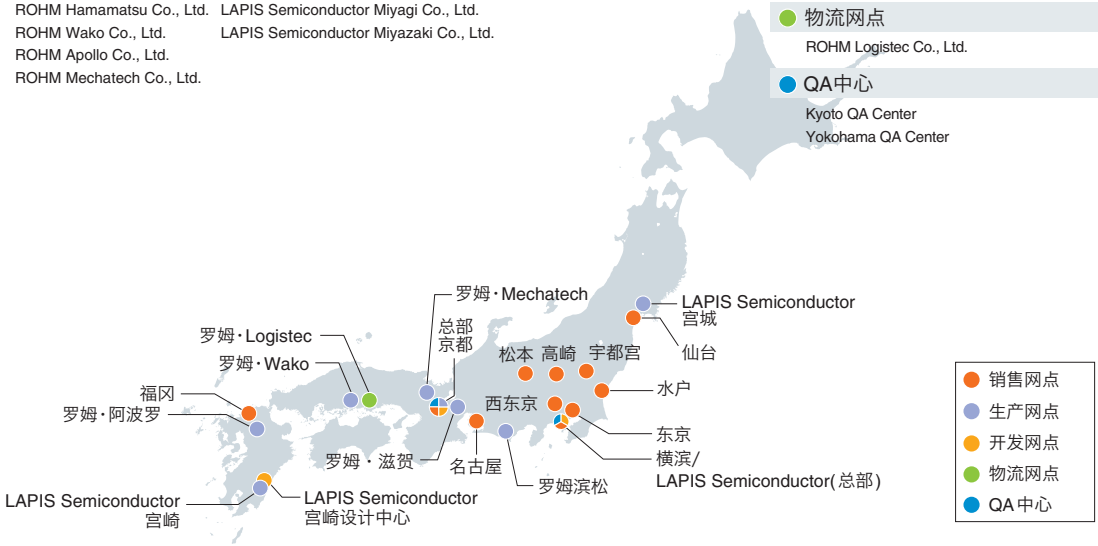
Kyoto Technology Center (Head Office)
Kyoto Technology Center (Kyoto Ekimae)
Yokohama Technology Center
LAPIS Semiconductor Co., Ltd.(Shin-Yokohama)
LAPIS Semiconductor Miyazaki Design Center

物流网点

ROHM Logistec Co., Ltd.

QA中心

Kyoto QA Center
Yokohama QA Center



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	ROHM Semiconductor Malaysia Sdn. Bhd.
	ROHM Semiconductor India Pvt. Ltd.
AMERICA	ROHM Semiconductor U.S.A., LLC
	ROHM Semiconductor do Brasil Ltda.
EUROPE	ROHM Semiconductor GmbH

生产网点

ASIA	ROHM Korea Corporation
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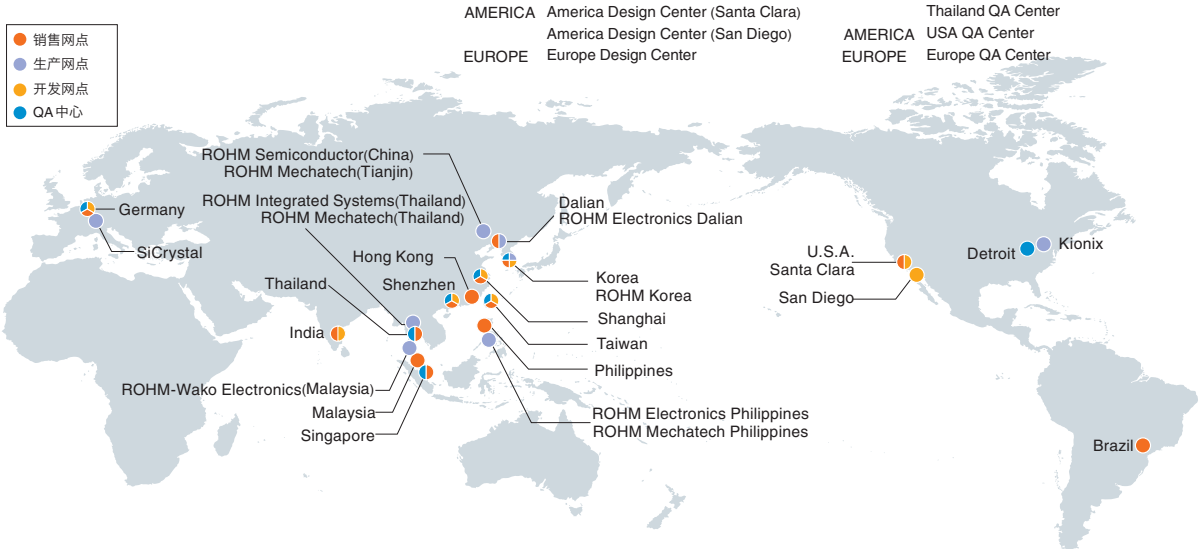
	ROHM Integrated Systems (Thailand) Co., Ltd.
	ROHM Semiconductor(China) Co., Ltd.
	ROHM Electronics Dalian Co., Ltd.
	ROHM-Wako Electronics (Malaysia) Sdn. Bhd.
	ROHM Mechatech Philippines, Inc.
	ROHM Mechatech (Thailand) Co., Ltd.
	ROHM Mechatech (Tianjin) Co., Ltd.
AMERICA	Kionix, Inc.
EUROPE	SiCrystal AG

开发网点

ASIA	Korea Design Center
	Shanghai Design Center
	Shenzhen Design Center
	Taiwan Design Center
	India Design Center
AMERICA	America Design Center (Santa Clara)
	America Design Center (San Diego)
EUROPE	Europe Design Center

QA中心

ASIA	Korea QA Center
	Shanghai QA Center
	Shenzhen QA Center
	Taiwan QA Center
	Singapore QA Center
	Thailand QA Center
AMERICA	USA QA Center
EUROPE	Europe QA Center



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