



SANYO Semiconductors

# DATA SHEET

An ON Semiconductor Company

## SB10015M — Low IR Schottky Barrier Diode 15V, 1.0A Rectifier

### Applications

- High frequency rectification (switching regulators, converters, choppers)

### Features

- Small switching noise
- Low leakage current and high reliability due to highly reliable planar structure
- Ultrasmall package permitting applied sets to be small and slim (mounting height 0.85mm)

### Specifications

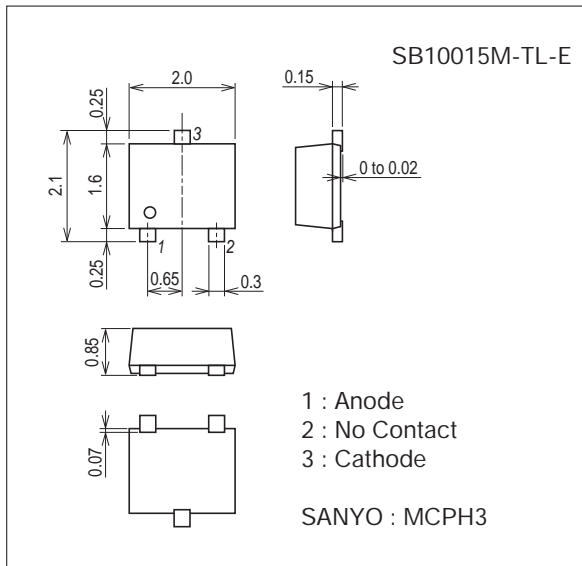
Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>		15	V
Nonrepetitive Peak Reverse Surge Voltage	V <sub>RSM</sub>		17	V
Average Output Current	I <sub>O</sub>		1.0	A
Surge Forward Current	I <sub>FSM</sub>	50Hz sine wave, 1 cycle	10	A
Junction Temperature	T <sub>j</sub>		-55 to +150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

### Package Dimensions

unit : mm (typ)

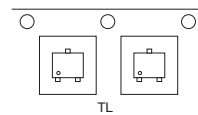
7019A-001



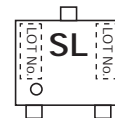
### Product & Package Information

- Package : MCPH3
- JEITA, JEDEC : SC-70, SOT-323
- Minimum Packing Quantity : 3,000 pcs./reel

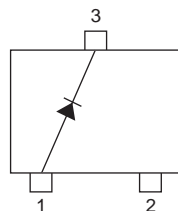
### Packing Type : TL



### Marking



### Electrical Connection

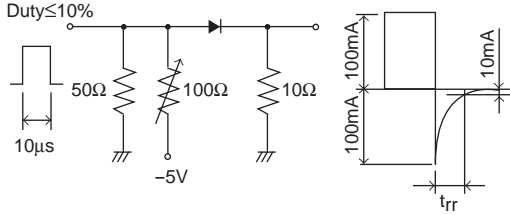


# SB10015M

## Electrical Characteristics at Ta=25°C

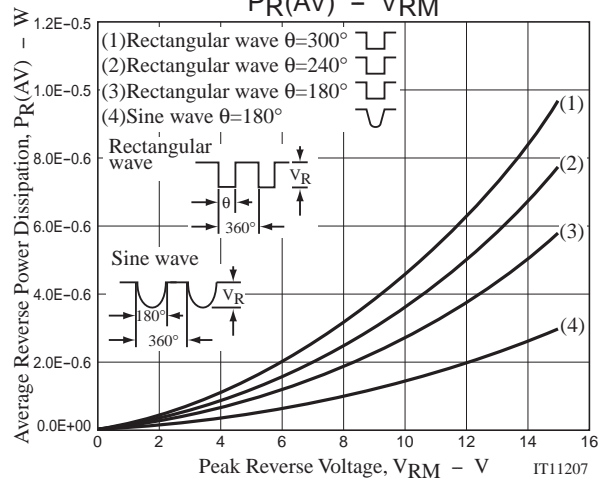
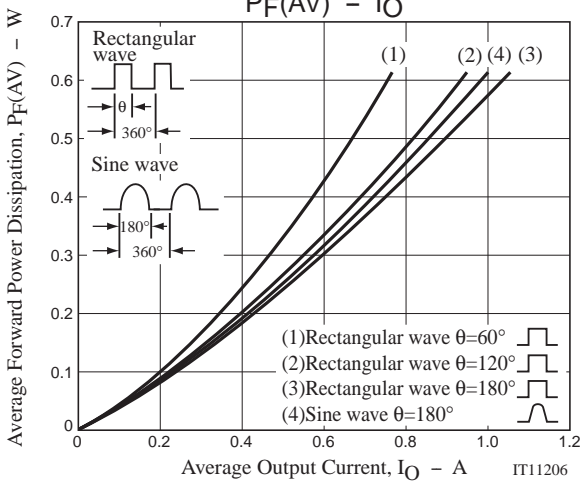
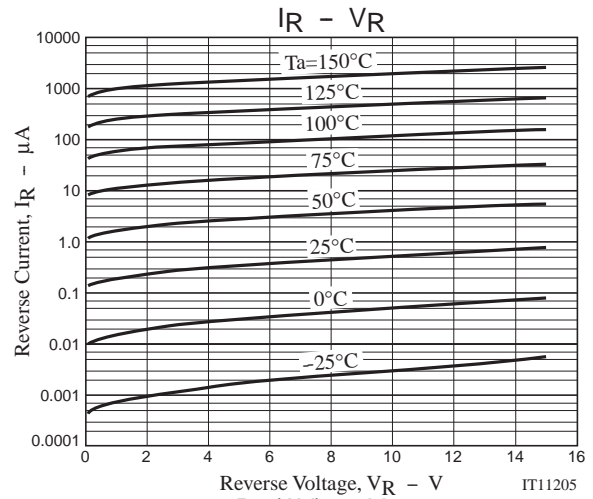
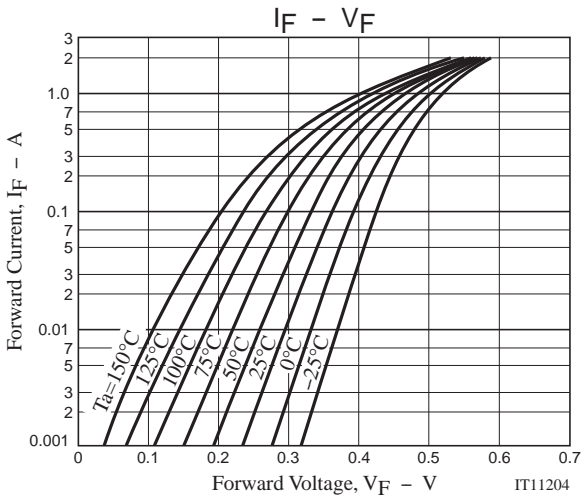
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =0.1mA	15			V
Forward Voltage	V <sub>F1</sub>	I <sub>F</sub> =0.5A		0.43	0.48	V
	V <sub>F2</sub>	I <sub>F</sub> =1.0A		0.49	0.54	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =7.5V			3	μA
Interterminal Capacitance	C	V <sub>R</sub> =10V, f=1MHz		20		pF
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =100mA, See specified Test Circuit.			10	ns
Thermal Resistance	R <sub>th(j-a)</sub>	When mounted in Cu-foiled area of 0.72mm <sup>2</sup> ×0.03mm on glass epoxy substrate		185		°C / W

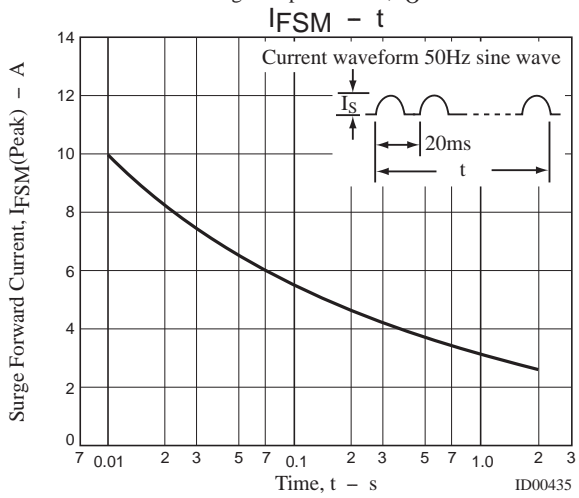
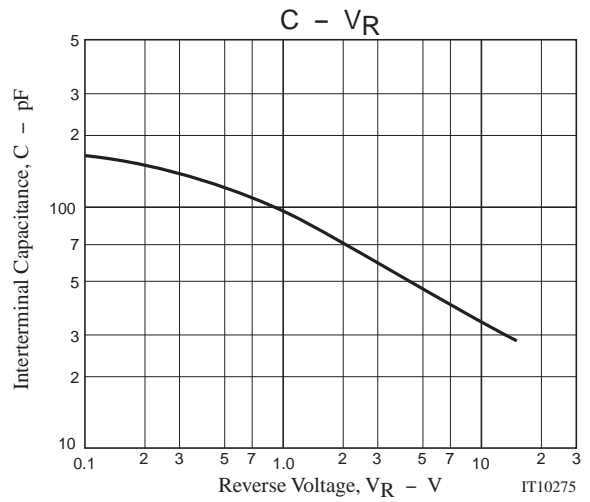
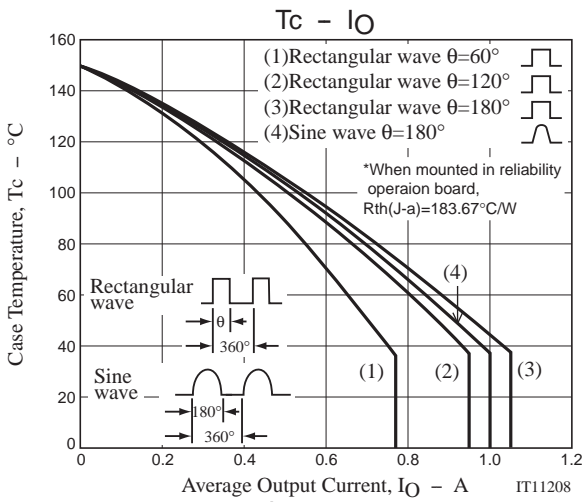
### t<sub>rr</sub> Test Circuit



### Ordering Information

Device	Package	Shipping	memo
SB10015M-TL-E	MCPH3	3,000pcs./reel	Pb Free





# SB10015M

## Taping Specification

SB10015M-TL-E

### 1. Packing Format

Package Name	Carrier Tape Type	Maximum Number of devices contained (pcs)			Packing format	
		Reel	Inner box	Outer box	Inner BOX (C-1)	Outer BOX (A-7)
MCPH3	MCPH3	3,000	15,000	90,000	5 reels contained Dimensions:mm (external) 183×72×185	6 inner boxes contained Dimensions:mm (external) 440×195×210

Reel label, Inner box label  
(unit: mm)

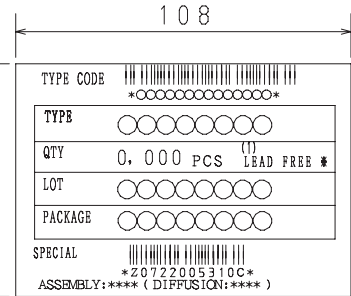
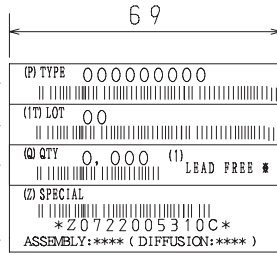
Outer box label  
It is a label at the time of factory shipments.  
The form of a label may change in physical distribution process.

#### Packing method



Type No. →  
LOT No. →  
Quantity →  
Origin →

Reel label



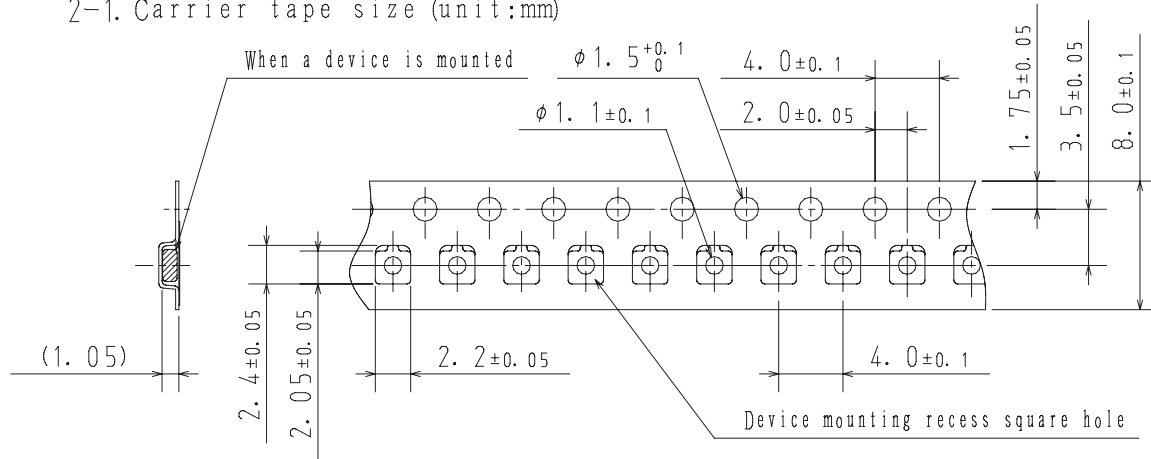
**NOTE (1)**

The LEAD FREE \* description shows that the surface treatment of the terminal is lead free.

Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

### 2. Taping configuration

#### 2-1. Carrier tape size (unit:mm)



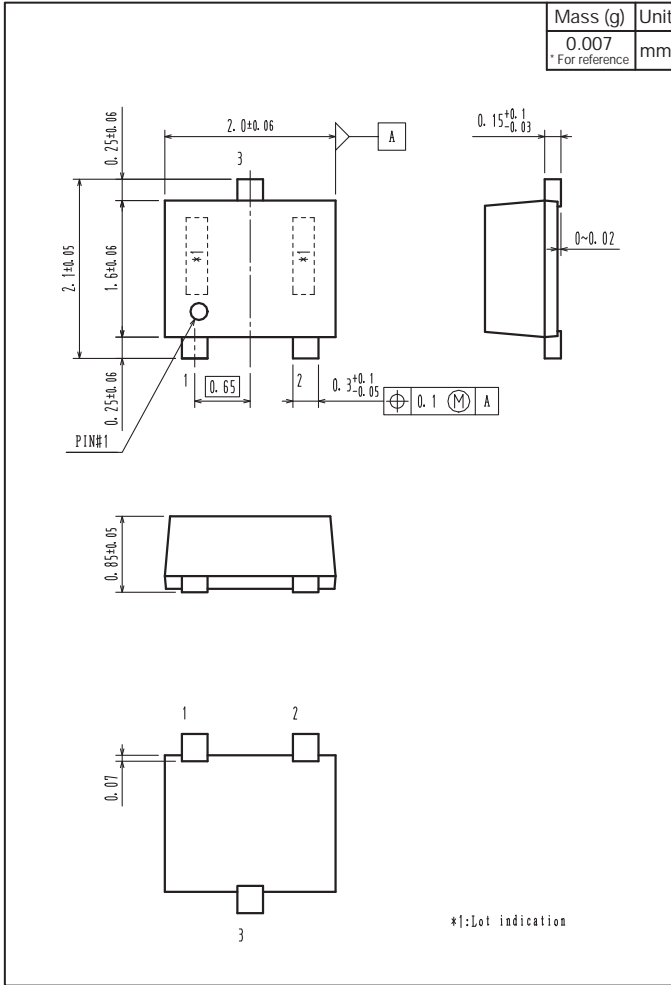
#### 2-2. Device placement direction



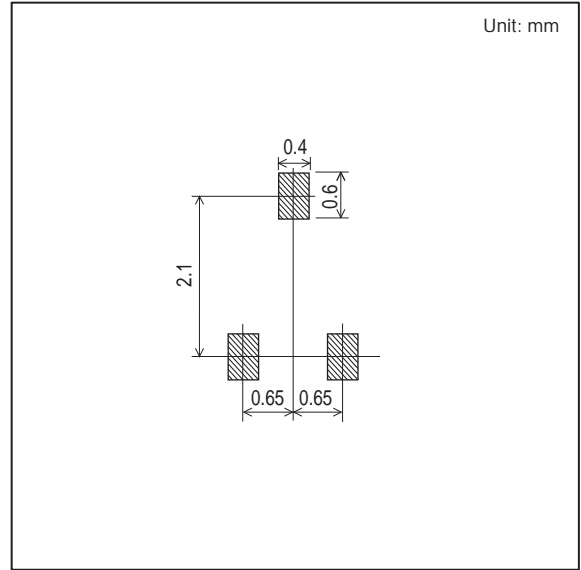
Those with pin 1 index on the feed hole side.....TL

# SB10015M

## Outline Drawing SB10015M-TL-E



## Land Pattern Example



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