



SEMICONDUCTOR
TECHNICAL DATA

2SK447
MG15D4GM1
MG15D4HM1
MG15D6EM1

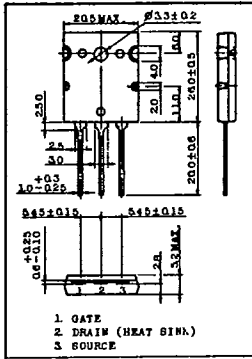
T-39.27
(250V/15A)

OUT LINE

EQUIVALENT CIRCUIT

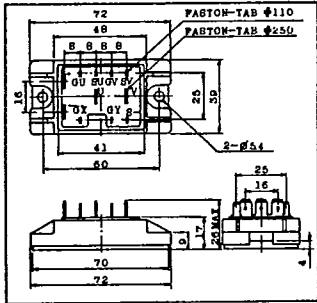
Unit in mm

2SK447



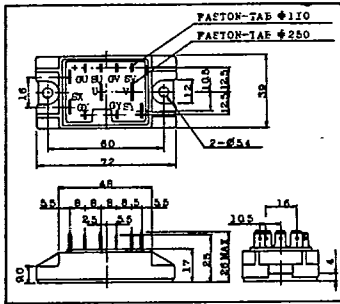
Weight : 9.75gr

MG15D4GM1



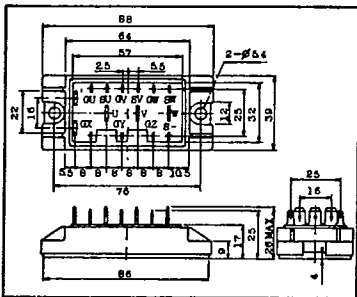
Weight : 140gr

MG15D4HM1

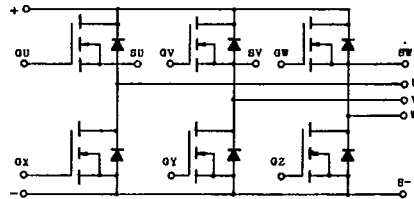
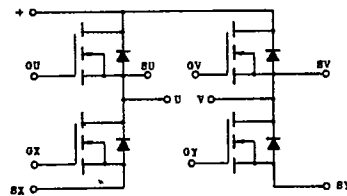
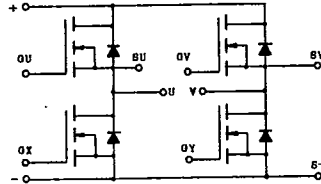
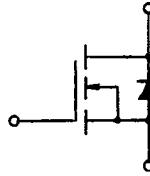


Weight : 140gr

MG15D6EM1



Weight : 180gr



TOSHIBA CORPORATION



SEMICONDUCTOR

东芝

TECHNICAL DATA

2SK447
MG15D4GM1
MG15D4HM1
MG15D6EM1

T-39-27

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	2SK447 RATING	MODULE	UNIT
Drain-Source Voltage		V _{DSS}	250	250	V
Gate-Source Voltage		V _{GSS}	±20	±20	V
Drain Current	DC	I _D	±15	±15	A
	Peak		±30	±30	A
Drain Power Dissipation (Tc=25°C)		P _D	150	100	W
Channel Temperature		T _{ch}	150	150	°C
Storage Temperature Range		T _{stg}	-55~150	-40~125	°C
Isolation Voltage		V _{Isol}	—	2500 (AC 1 Min.)	V
Screw Torque		—	—	30	Kg.cm

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current		I _{GSS}	V _{GS} =±20V, V _{DS} =0	—	—	±100	nA
Drain Cut-off Current		I _{DSS}	V _{DS} =250V, V _{GS} =0	—	—	1.0	mA
Drain-Source Breakdown Voltage		V(BR)DSS	I _D =10mA, V _{GS} =0	250	—	—	V
Gate Threshold Voltage		V _{th}	V _{DS} =10V, I _D =1mA	1.5	—	3.5	V
Forward Transfer Admittance		Y _{fs}	V _{DS} =10V, I _D =15A	4.0	7.0	—	S
Drain-Source ON Resistance		R _{DS(ON)}	I _D =15A, V _{GS} =10V	—	—	0.24	Ω
Source Drain Forward Voltage		V _{SDF}	I _S =15A, V _{GS} =0	—	—	1.8	V
Input Capacitance		C _{iss}	V _{DS} =10V, V _{GS} =0, f=1MHz	—	2000	—	pF
Switching Time	Rise Time	t _r	<p>V_{IN}: t_r, t_f < 5ns D.U. ≤ 1% (Z_{OUT} = 50Ω)</p>	—	300	600	ns
	Turn-on Time	t _{on}		—	350	700	ns
	Fall Time	t _f		—	200	400	ns
	Turn-off Time	t _{off}		—	600	1000	ns
Reverse Recovery Time		t _{rr}	I _D =-15A, R _C =220Ω V _{GS} =-15V, di/dt=60A/µs	—	250	600	ns

TOSHIBA CORPORATION

GT1A2

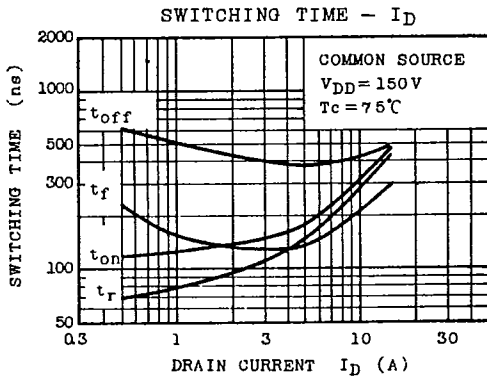
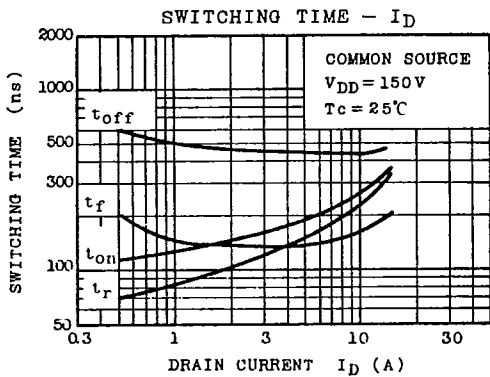
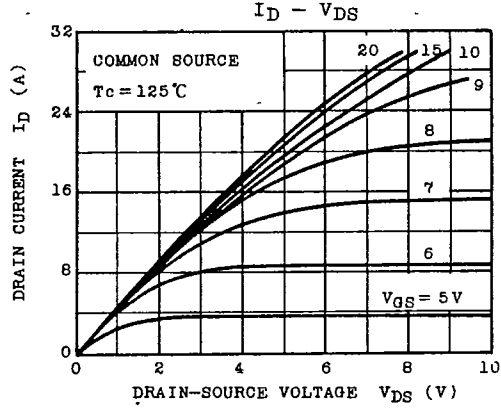
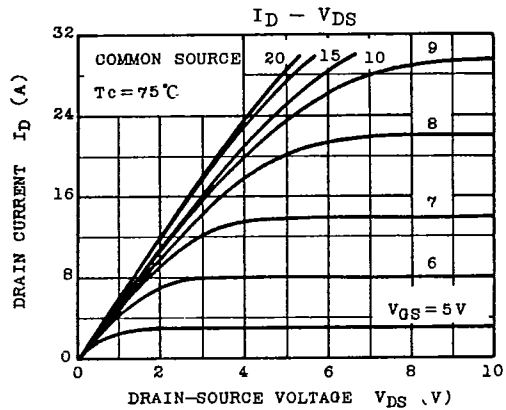
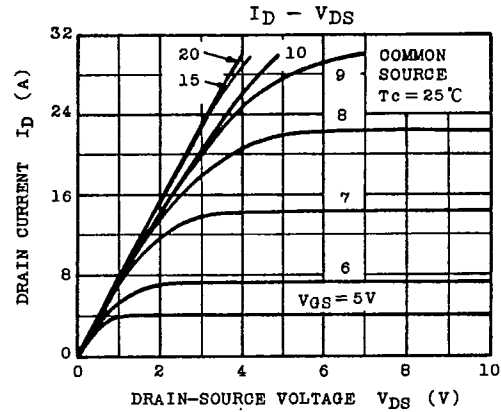
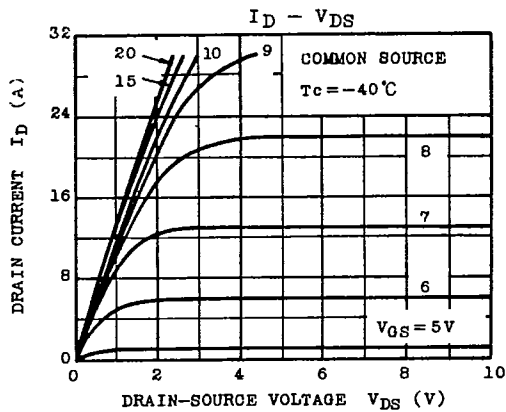


SEMICONDUCTOR

TECHNICAL DATA

2SK447
 MG15D4GM1
 MG15D4HM1
 MG15D6EM1

T-39-27



TOSHIBA CORPORATION

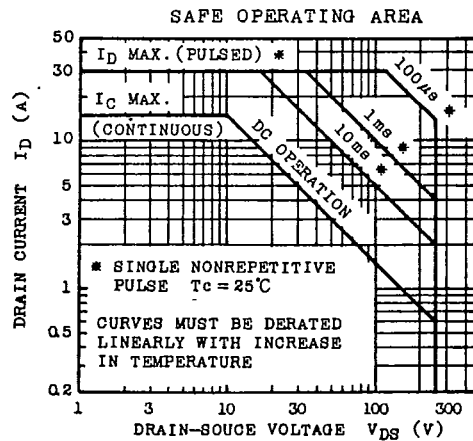
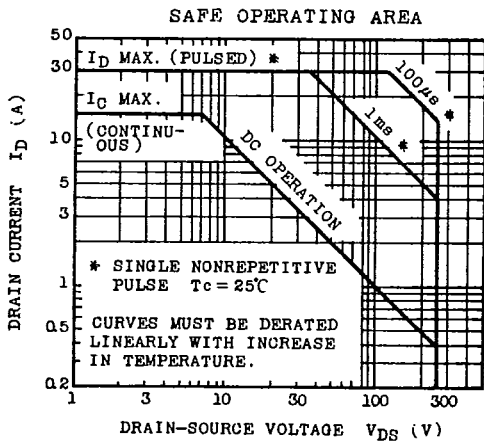
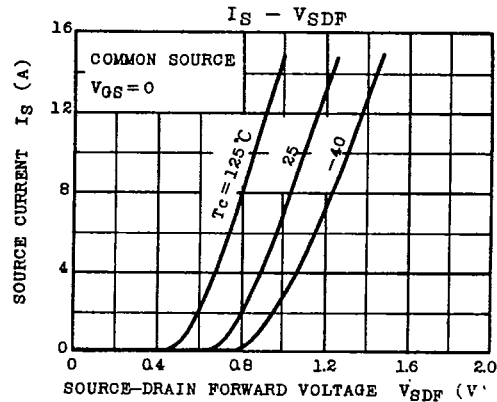
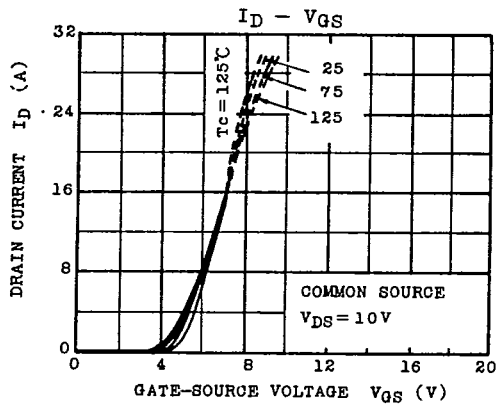
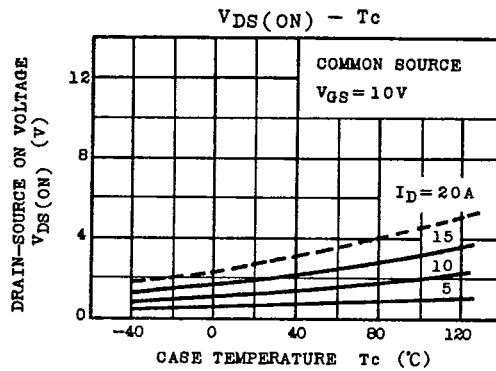
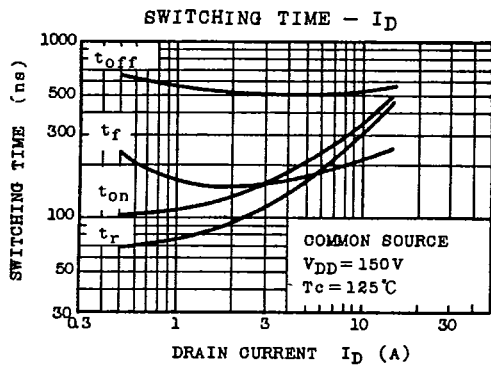


SEMICONDUCTOR

TECHNICAL DATA

2SK447
 MG15D4GM1
 MG15D4HM1
 MG15D6EM1

T-39-27



MODULE

2SK447

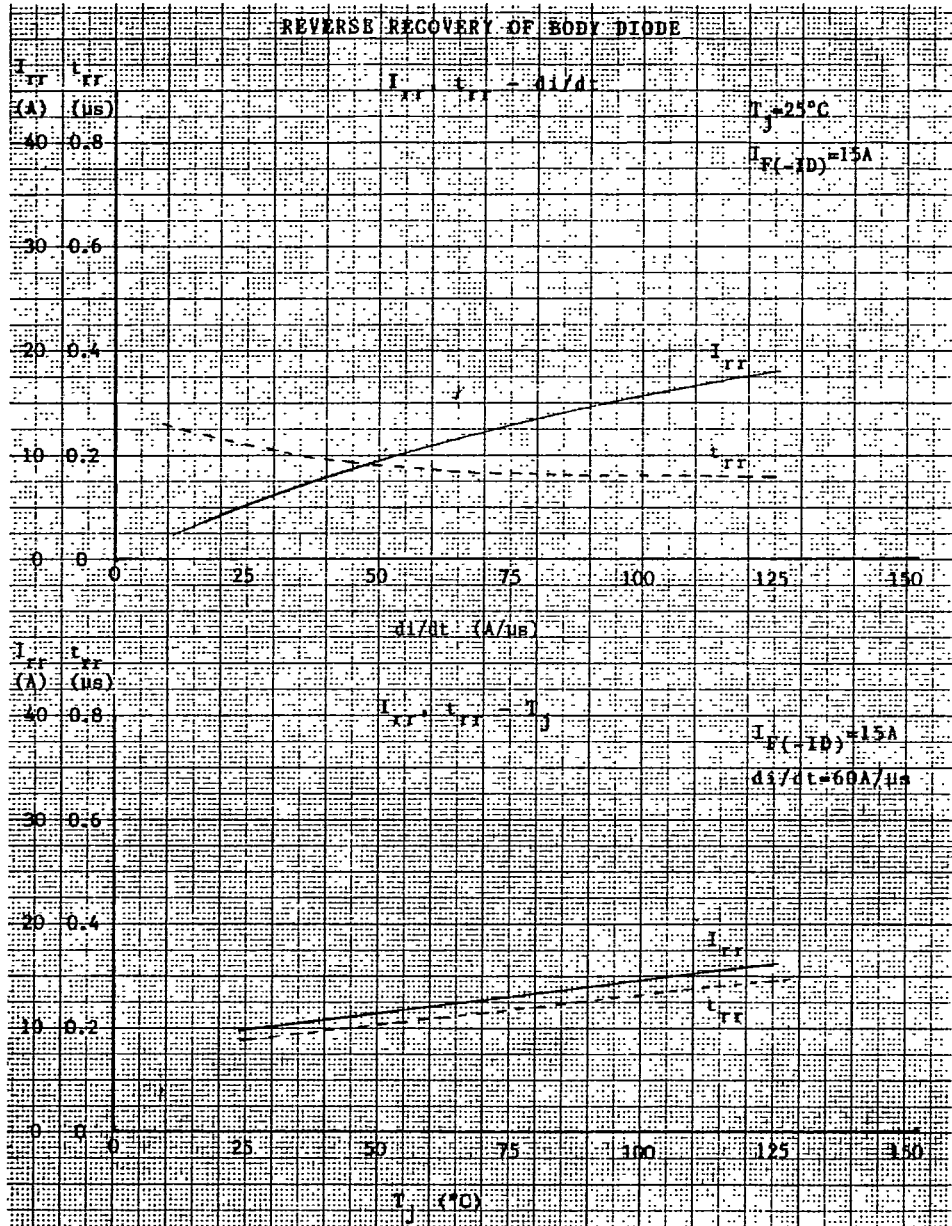
TOSHIBA CORPORATION



SEMICONDUCTOR
TECHNICAL DATA

2SK447
MG15D4GM1
MG15D4HM1
MG15D6EM1

T-39.27



TOSHIBA CORPORATION

GT1A2A

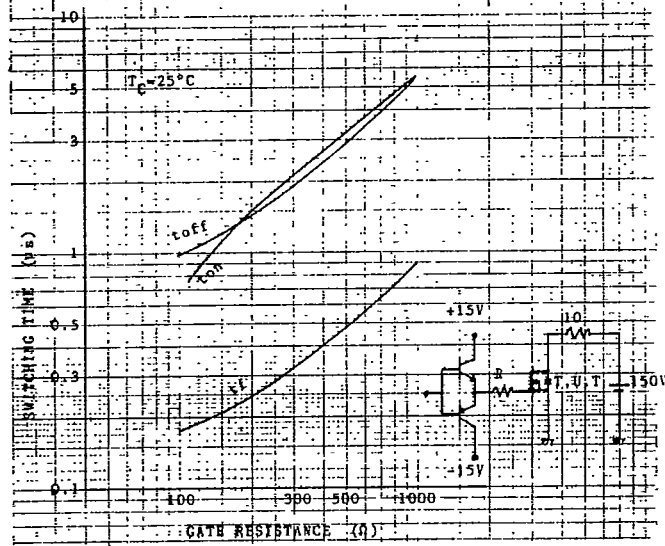


SEMICONDUCTOR
TECHNICAL DATA

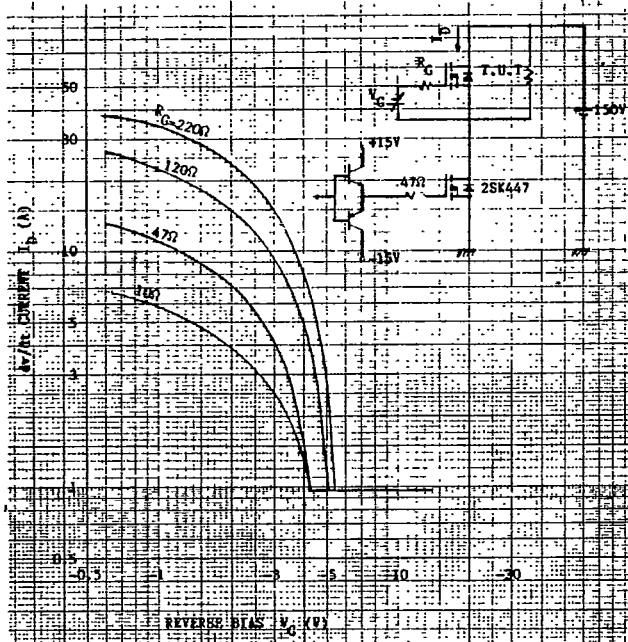
2SK447
MG15D4GM1
MG15D4HM1
MG15D6EM1

T-39.27

GATE RESISTANCE DEPENDENCE OF SWITCHING TIME



REVERSE BIAS DEPENDENCE OF dv/dt CURRENT



TOSHIBA CORPORATION