

RM50HG-12S

HIGH SPEED SWITCHING USE
NON-INSULATED TYPE

RM50HG-12S



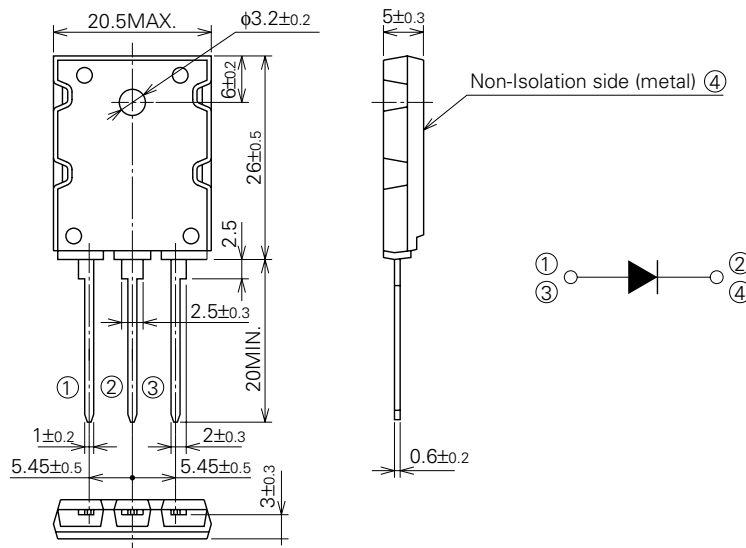
- **Idc** DC current **50A**
- **VRRM** Repetitive peak reverse voltage **600V**
- **trr** Reverse recovery time **0.2μs**
- **ONE ARM**
- **Non-Insulated Type**

APPLICATION

For snubber circuit (IPM or IGBT module)

OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



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ABSOLUTE MAXIMUM RATINGS (T_j=25°C)

Symbol	Parameter	Voltage class		Unit
		12		
VRRM	Repetitive peak reverse voltage	600		V
VR (DC)	Reverse DC voltage	480		V

Symbol	Parameter	Conditions	Ratings	Unit
I _{DC}	DC current	Resistive load, T _c =80°C ①, ③ Collective of terminal	50	A
I _{FSM}	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value ①, ③ Collective of terminal	1000	A
I ² _t	I ² _t for fusing	Value for one cycle surge current	—	A ² s
T _j	Junction temperature		-40~+150	°C
T _{stg}	Storage temperature		-40~+125	°C
V _{iso}	Isolation voltage	Charged part to case	—	V
—	Mounting torque	Mounting screw M3	0.59-0.98	N·m
—			6~10	kg·cm
—	Weight	Typical value	5	g

ELECTRICAL CHARACTERISTICS

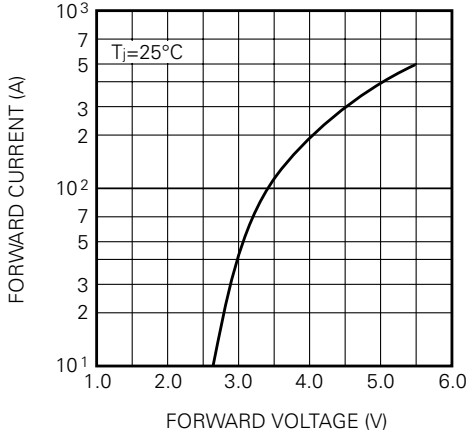
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I _{RRM}	Repetitive reverse current	T _j =25/125°C, V _{RRM} applied	—	—	0.1/1.0	mA
V _{FM}	Forward voltage	T _j =25°C, I _{FM} =200A, Instantaneous meas.	—	—	4.0	V
t _{rr}	Reverse recovery time	I _{FM} =200A, T _j =25°C, di/dt=-1000A/μs, V _R =300V	—	—	0.2	μs
Q _{rr}	Reverse recovery charge		—	—	—	μC
R _{th (j-c)}	Thermal resistance	Junction to case	—	—	0.5	°C/W
R _{th (c-f)}	Contact thermal resistance	Case to fin, conductive grease applied	—	—	0.5	°C/W

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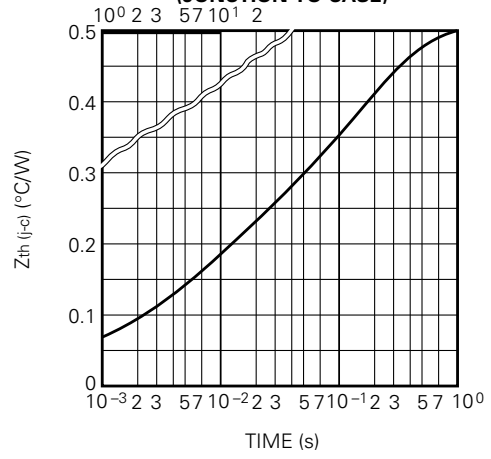
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PERFORMANCE CURVES

MAXIMUM FORWARD CHARACTERISTIC



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



RATED SURGE (NON-REPETITIVE) FORWARD CURRENT

