

BCR2PM

BCR 2PM

LOW POWER USE
INSULATED TYPE, PLANAR PASSIVATION TYPE

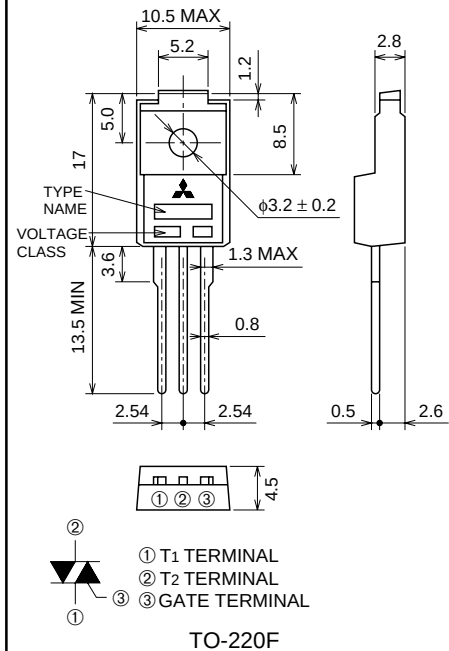
BCR2PM



- IT (RMS) 2A
- VDRM 600V
- IRGT I, IRGT III 10mA

OUTLINE DRAWING

Dimensions
in mm



APPLICATION

Switching mode power supply, light dimmer, electric flasher unit,
control of household equipment such as TV sets · stereo · refrigerator · washing machine · infrared
kotatsu · carpet, solenoid drivers, small motor control,
copying machine, electric tool,
other general purpose control applications

MAXIMUM RATINGS

Symbol	Parameter	Voltage class	Unit
		12	
VDRM	Repetitive peak off-state voltage *1	600	V
VDSM	Non-repetitive peak off-state voltage *1	720	V

Symbol	Parameter	Conditions	Ratings	Unit
IT (RMS)	RMS on-state current	Commercial frequency, sine full wave 360° conduction	2	A
ITSM	Surge on-state current	60Hz sinewave 1 full cycle, peak value, non-repetitive	10	A
I ² _t	I ² _t for fusing	Value corresponding to 1 cycle of half wave 60Hz, surge on-state current	0.41	A ² s
PGM	Peak gate power dissipation		1	W
PG (AV)	Average gate power dissipation		0.1	W
VGM	Peak gate voltage		6	V
IGM	Peak gate current		1	A
T _j	Junction temperature		-40 ~ +125	°C
T _{stg}	Storage temperature		-40 ~ +125	°C
—	Weight	Typical value	2.0	g

*1. Gate open.

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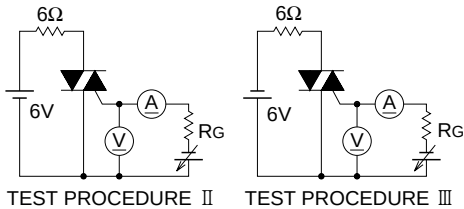
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ELECTRICAL CHARACTERISTICS

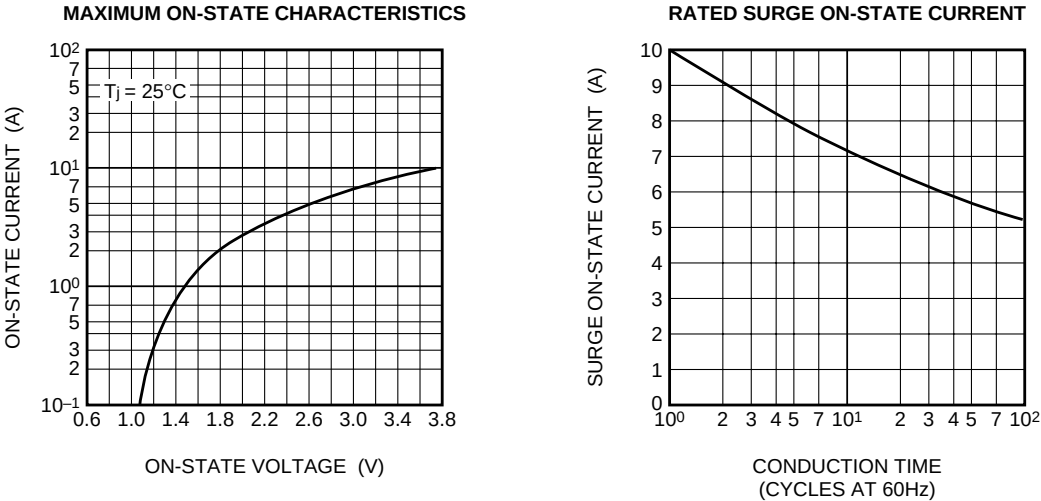
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IDRM	Repetitive peak off-state current	Tj=125°C, VDRM applied	—	—	0.5	mA
VTM	On-state voltage	Ta=25°C, ITM=1.5A, Instantaneous measurement	—	—	1.6	V
VRGT I	Gate trigger voltage *2	Tj=25°C, Vd=6V, RL=6Ω, RG=330Ω	—	—	2.0	V
VRGT III			—	—	2.0	V
IRGT I	Gate trigger current *2	Tj=25°C, Vd=6V, RL=6Ω, RG=330Ω	—	—	10	mA
IRGT III			—	—	10	mA
VGD	Gate non-trigger voltage	Tj=125°C, Vd=1/2VDRM	0.1	—	—	V
Rth (j-a)	Thermal resistance	Junction to ambient, Natural convection	—	—	40	°C/W

*2. Measurement using the gate trigger characteristics measurement circuit.

GATE TRIGGER CHARACTERISTICS TEST CIRCUITS



PERFORMANCE CURVES

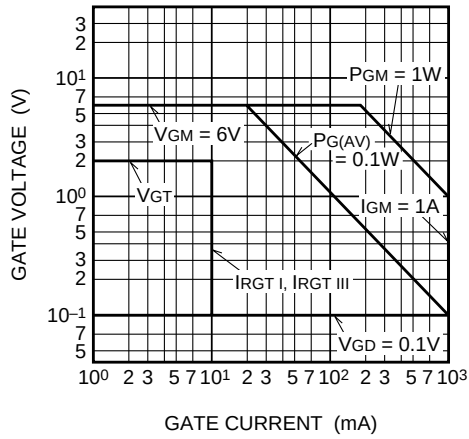


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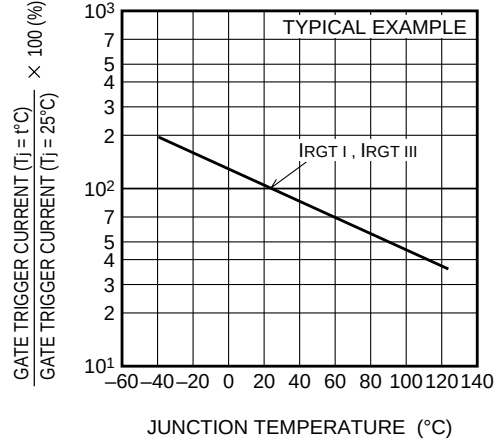
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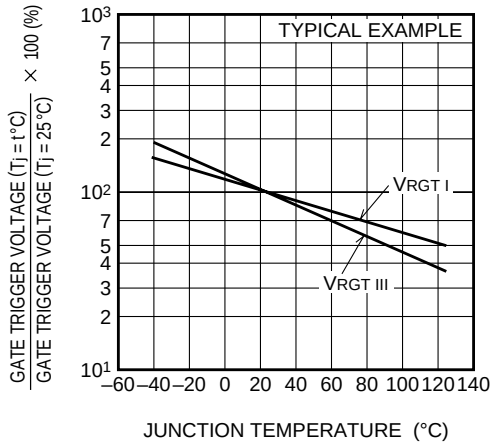
GATE CHARACTERISTICS



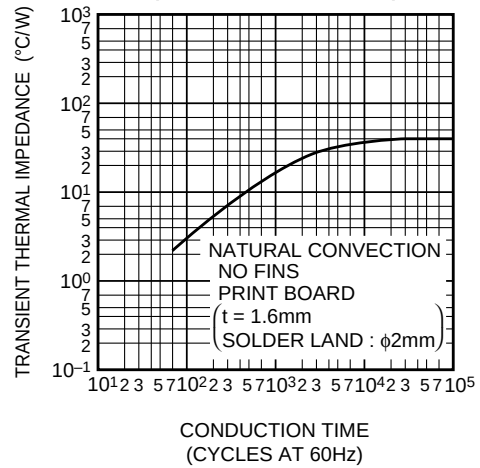
GATE TRIGGER CURRENT VS. JUNCTION TEMPERATURE



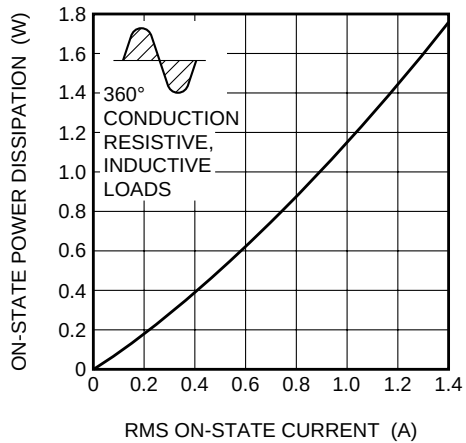
GATE TRIGGER VOLTAGE VS. JUNCTION TEMPERATURE



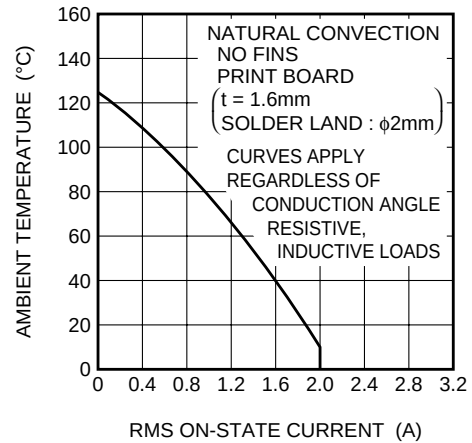
MAXIMUM TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION TO AMBIENT)



MAXIMUM ON-STATE POWER DISSIPATION



ALLOWABLE AMBIENT TEMPERATURE VS. RMS ON-STATE CURRENT



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