


BCR2PM

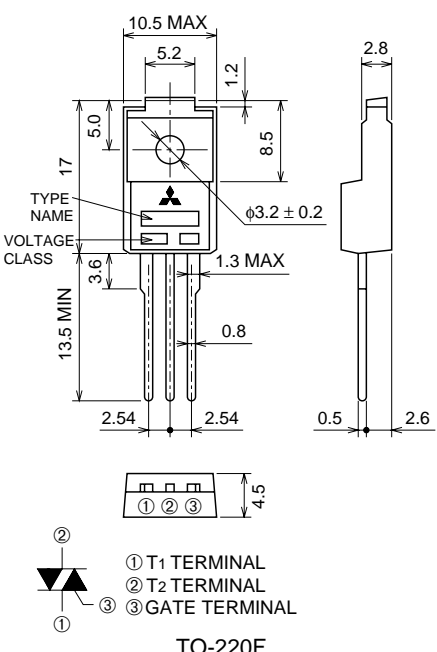
LOW POWER USE
INSULATED TYPE, PLANAR PASSIVATION TYPE

BCR2PM



- IT (RMS) 2A
- VDRM 400V/600V
- IRGT I, IRGT III 10mA

OUTLINE DRAWING Dimensions in mm



① T1 TERMINAL
② T2 TERMINAL
③ GATE TERMINAL

TO-220F

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
		8	12	
VDRM	Repetitive peak off-state voltage *1	400	600	V
VDSM	Non-repetitive peak off-state voltage *1	500	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
Tj	Junction temperature		-40 ~ +125	°C
Tstg	Storage temperature		-40 ~ +125	°C
—	Weight	Typical value	2.0	g

*1. Gate open.

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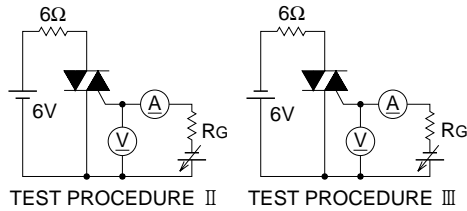
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ELECTRICAL CHARACTERISTICS

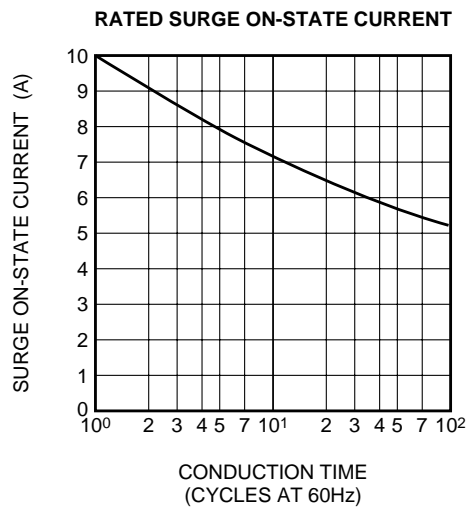
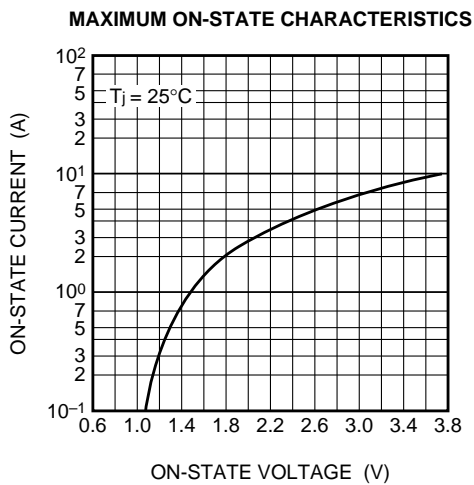
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IDRM	Repetitive peak off-state current	T _j =125°C, V _{DRM} applied	—	—	0.5	mA
V _{TM}	On-state voltage	T _a =25°C, I _{TM} =1.5A, Instantaneous measurement	—	—	1.6	V
V _{RGT I}	Gate trigger voltage *2	T _j =25°C, V _D =6V, R _L =6Ω, R _G =330Ω	—	—	2.0	V
V _{RGT III}			—	—	2.0	V
I _{RGT I}	Gate trigger current *2	T _j =25°C, V _D =6V, R _L =6Ω, R _G =330Ω	—	—	10	mA
I _{RGT III}			—	—	10	mA
V _{GD}	Gate non-trigger voltage	T _j =125°C, V _D =1/2V _{DRM}	0.1	—	—	V
R _{th(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



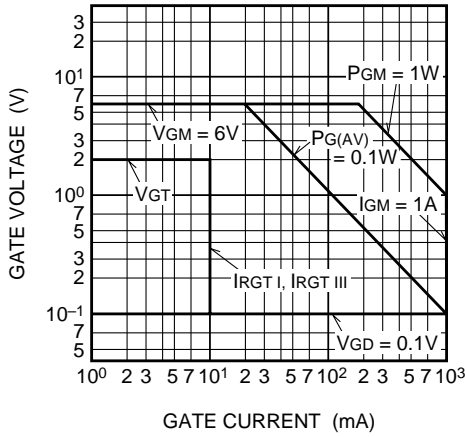
PERFORMANCE CURVES



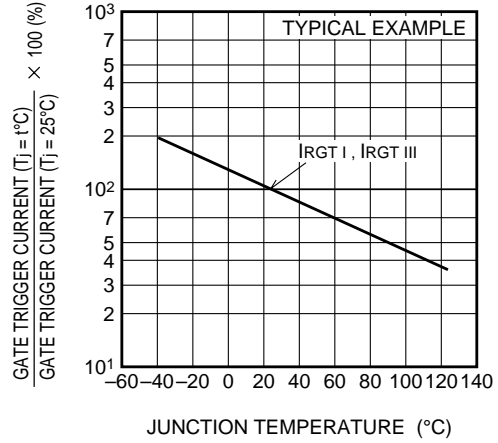
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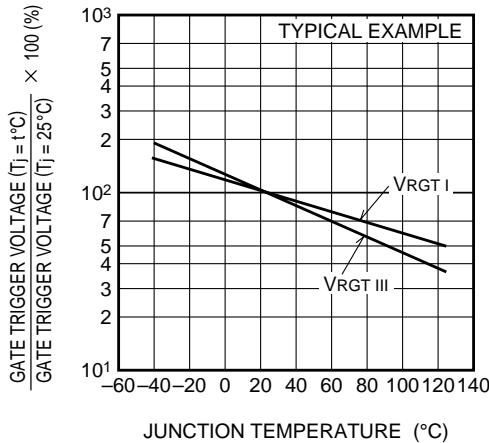
GATE CHARACTERISTICS



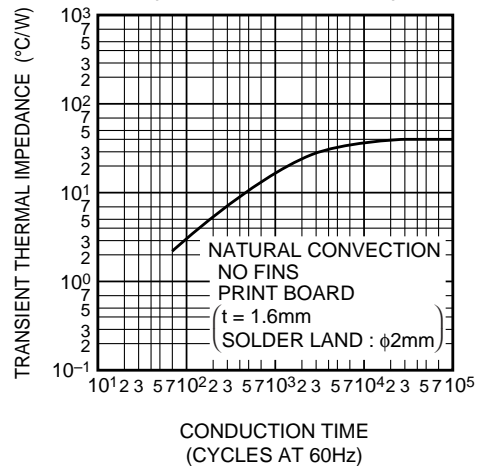
GATE TRIGGER CURRENT VS. JUNCTION TEMPERATURE



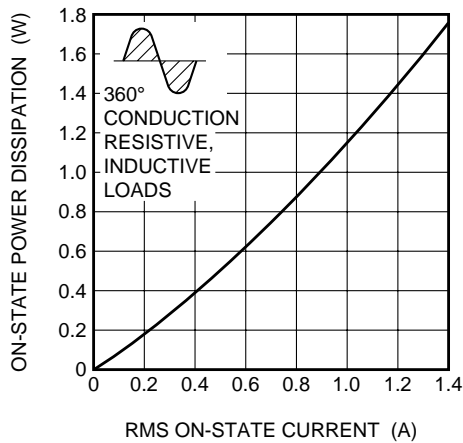
GATE TRIGGER VOLTAGE VS. JUNCTION TEMPERATURE



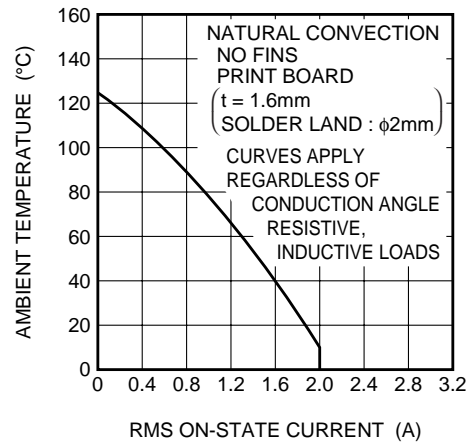
MAXIMUM TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION TO AMBIENT)



MAXIMUM ON-STATE POWER DISSIPATION



ALLOWABLE AMBIENT TEMPERATURE VS. RMS ON-STATE CURRENT



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