


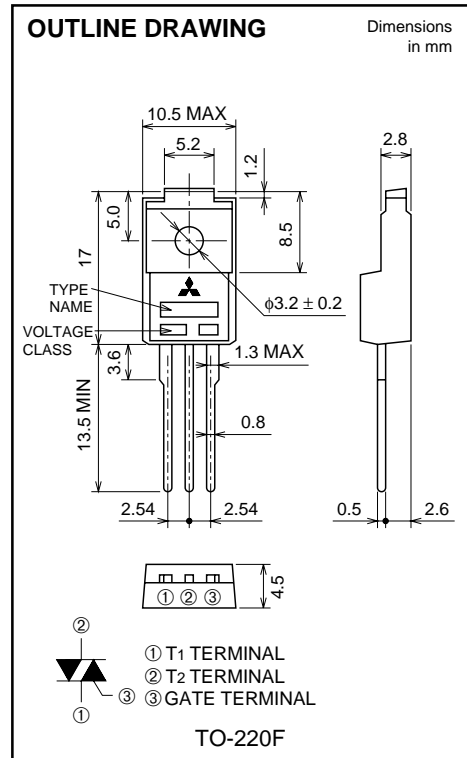
BCR2PM

LOW POWER USE
INSULATED TYPE, PLANAR PASSIVATION TYPE

BCR2PM



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



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 | 600 | |
| 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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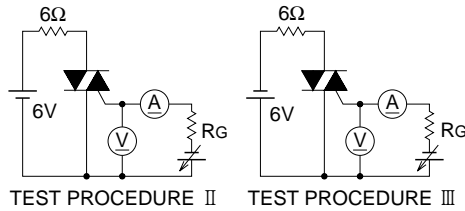
INSULATED TYPE, PLANAR PASSIVATION TYPE

ELECTRICAL CHARACTERISTICS

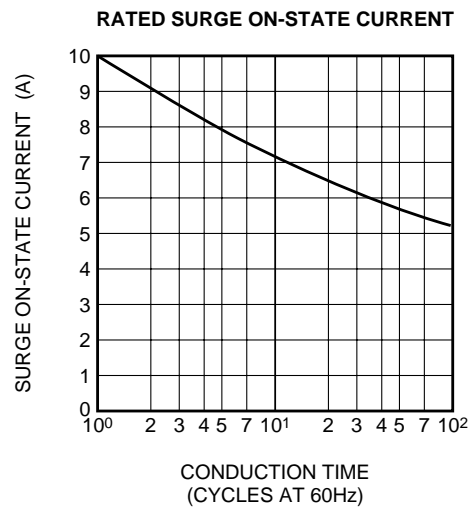
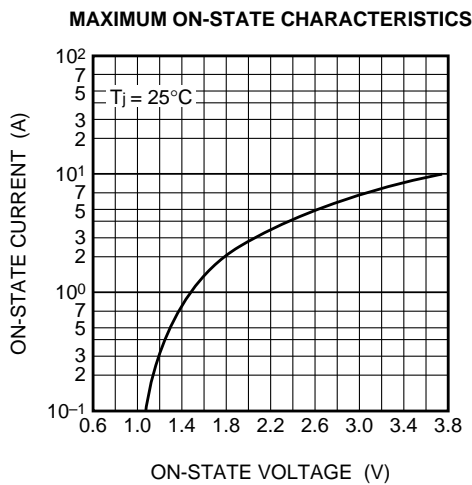
| Symbol | Parameter | Test conditions | Limits | | | Unit |
|----------------------|-----------------------------------|--|--------|------|------|------|
| | | | Min. | Typ. | Max. | |
| IDRM | Repetitive peak off-state current | T _j =125°C, V _{DRM} applied | — | — | 0.5 | mA |
| V _{TM} | On-state 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



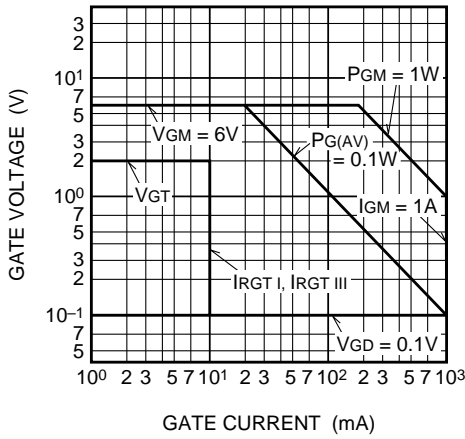
PERFORMANCE CURVES



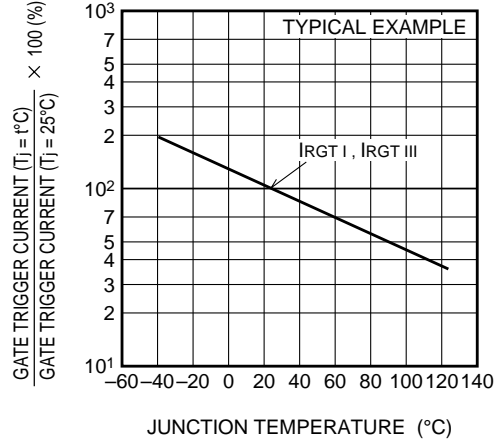
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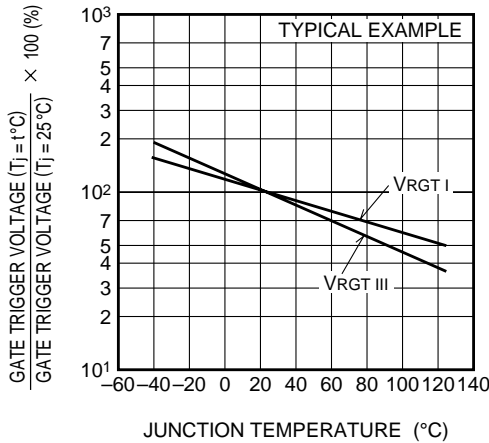
GATE CHARACTERISTICS



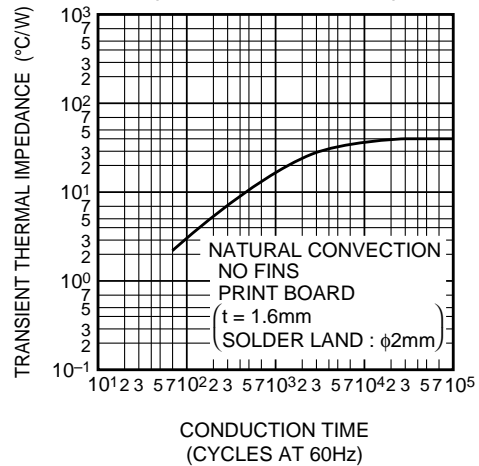
GATE TRIGGER CURRENT VS. JUNCTION TEMPERATURE



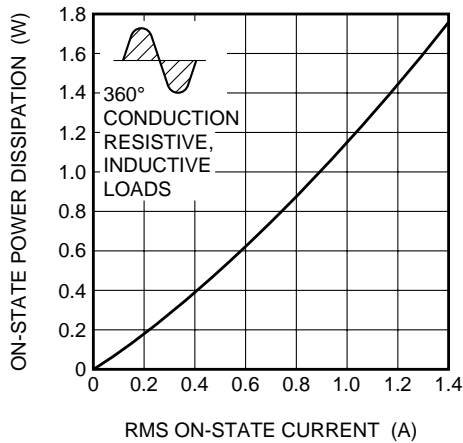
GATE TRIGGER VOLTAGE VS. JUNCTION TEMPERATURE



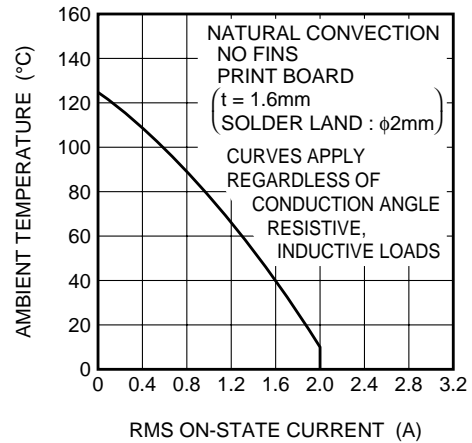
MAXIMUM TRANSIENT THERMAL IMPEDANCE CHARACTERISTICS (JUNCTION TO AMBIENT)



MAXIMUM ON-STATE POWER DISSIPATION



ALLOWABLE AMBIENT TEMPERATURE VS. RMS ON-STATE CURRENT



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