



## PRESS FIT AUTOMOTIVE RECTIFIER (MOTOROLA)

### PRMG251 THRU PRMG256

VOLTAGE RANGE 100 to 600 Volts

CURRENT 25.0 Amperes

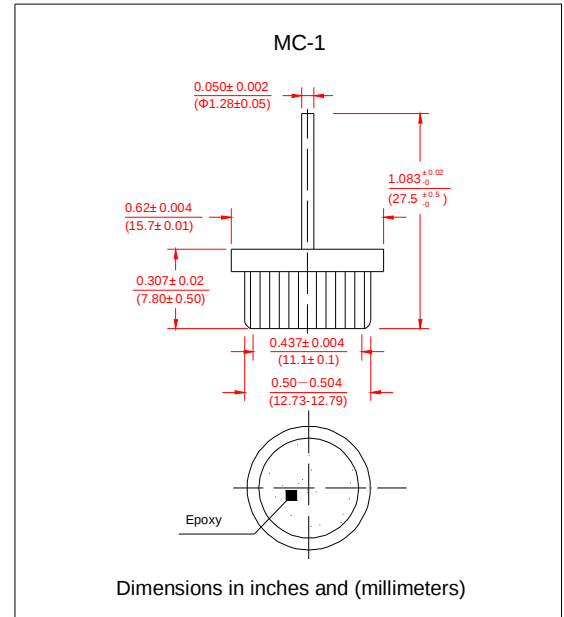
#### TECHNICAL SPECIFICATION:

#### FEATURES

- Low Leakage
- Low forward voltage drop
- High current capability
- High forward surge current capacity

#### MECHANICAL DATA

- Technology: Cell with vacuum soldered
- Case: Copper case
- Polarity: As marked of case bottom
- Lead: Plated lead , solderable per MIL-STD-202E method 208C
- Mounting: Press Fit
- Weight: 0.28 ounces, 8.0 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60HZ, resistive or inductive load
- For capacitive load derate current by 20%

|                                                                                                        | SYMBOLS                          | PRMG251       | PRMG252 | PRMG253 | PRMG254 | PRMG256 | UNIT             |
|--------------------------------------------------------------------------------------------------------|----------------------------------|---------------|---------|---------|---------|---------|------------------|
| Maximum Repetitive Peak Reverse Voltage                                                                | V <sub>RRM</sub>                 | 100           | 200     | 300     | 400     | 600     | Volts            |
| Maximum RMS Voltage                                                                                    | V <sub>RMS</sub>                 | 70            | 140     | 210     | 280     | 420     | Volts            |
| Maximum DC Blocking Voltage                                                                            | V <sub>DC</sub>                  | 100           | 200     | 300     | 400     | 600     | Volts            |
| Maximum Average Forward Rectified Current,<br>At Tc=105°C                                              | I <sub>(AV)</sub>                | 25            |         |         |         |         | Amps             |
| Peak Forward Surge Current<br>3.3mS single half sine wave superimposed on<br>Rated load (JEDEC method) | I <sub>FSM</sub>                 | 400           |         |         |         |         | Amps             |
| Rating for fusing (t<8.3ms)                                                                            | I <sup>2</sup> t                 | 664           |         |         |         |         | A <sup>2</sup> S |
| Maximum instantaneous Forward Voltage at 100A                                                          | V <sub>F</sub>                   | 1.08          |         |         |         |         | Volts            |
| Maximum DC Reverse Current at Rated TA=25°C<br>DC Blocking Voltage per element TA=100°C                | I <sub>R</sub>                   | 5.0           |         |         |         |         | UA               |
|                                                                                                        |                                  | 450           |         |         |         |         |                  |
| Typical Thermal Resistance                                                                             | R <sub>θJC</sub>                 | 0.8           |         |         |         |         | °C/W             |
| Operating and Storage Temperature Range                                                                | T <sub>J</sub> ,T <sub>STG</sub> | (-65 to +175) |         |         |         |         | °C               |

#### Notes:

1. Enough heatsink must be considered in application.



## PRESS FIT AUTOMOTIVE RECTIFIER (MOTOROLA)

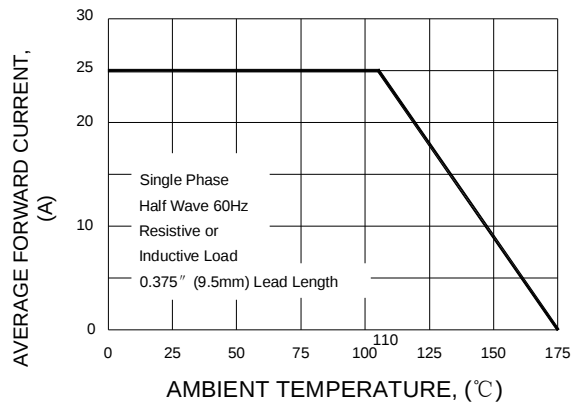
**PRMG251 THRU PRMG256**

**VOLTAGE RANGE** 100 to 600 Volts

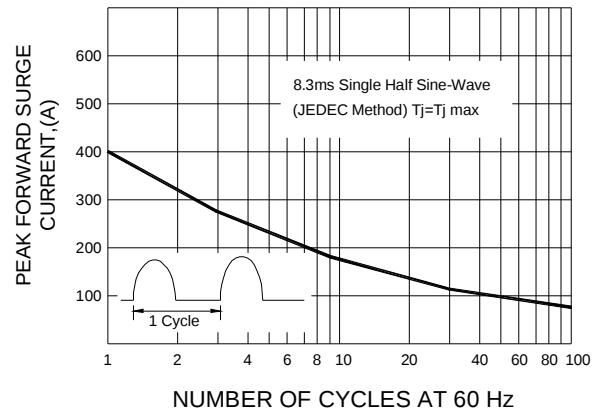
**CURRENT** 25.0 Amperes

### RATINGS AND CHARACTERISTIC CURVES PRMG251 THRU PRMG256

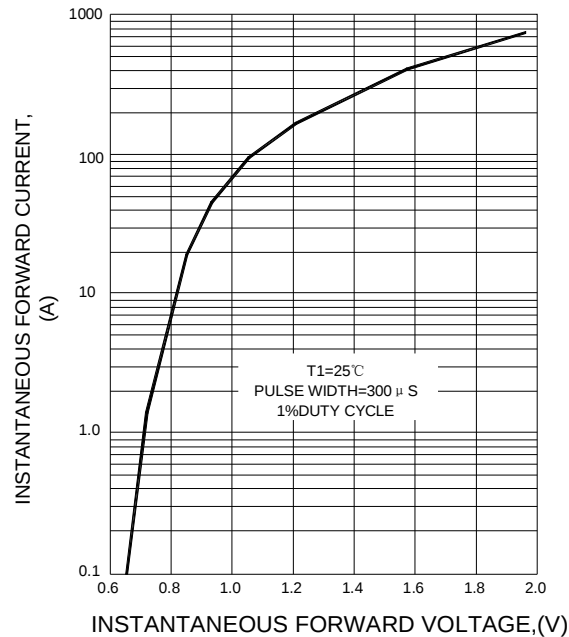
**F1G.1 TYPICAL FORWARD CURRENT DERATING CURVE**



**F1G.2 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**F1G.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**F1G.4 FORWARD POWER DISSIPATION**

