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|---|----------------|
|  | E502650 |
|---|----------------|

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Plastic Case With Metal Bottom

Maximum Ratings

- Operating Junction Temperature Range: -50°C to +150°C
- Storage Temperature Range: -50°C to +150°C
- Typical Thermal Resistance: 0.95°C/W Junction to Case(Per Leg)

Mechanical Data

- Mounting Torque: 2.0 N.m, Tolerance: +/-10%
- Mounting Hole For #8 Screw

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MP5005W | MP5005W | 50V | 35V | 50V |
| MP501W | MP501W | 100V | 70V | 100V |
| MP502W | MP502W | 200V | 140V | 200V |
| MP504W | MP504W | 400V | 280V | 400V |
| MP506W | MP506W | 600V | 420V | 600V |
| MP508W | MP508W | 800V | 560V | 800V |
| MP5010W | MP5010W | 1000V | 700V | 1000V |

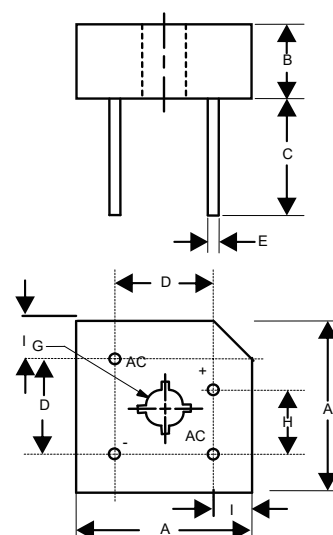
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|---------------------------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 50.0A | $T_C = 55^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 450A | 8.3ms, Half Sine |
| Maximum Forward Voltage Drop Per Element | V_F | 1.1V | $I_{FM} = 25\text{A}; T_J = 25^\circ\text{C}$ (Note 2) |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 10 μA 500 μA | $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ |

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.
2. Pulse Test: Pulse Width 300usec, Duty Cycle 1%

50 Amp Single Phase Glass Passivated Chip Bridge Rectifier 50 to 1000 Volts

MP-50W



| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|---------|
| | MIN | MAX | MIN | MAX | |
| A | 1.118 | 1.130 | 28.40 | 28.70 | |
| B | 0.432 | 0.442 | 10.97 | 11.23 | |
| C | 0.769 | --- | 19.53 | --- | |
| D | 0.673 | 0.752 | 17.10 | 19.10 | |
| E | 0.038 | 0.042 | 0.97 | 1.07 | 4PL/TYP |
| G | 0.193 | --- | 4.90 | --- | Φ |
| H | 0.429 | 0.468 | 10.90 | 11.90 | |
| I | 0.169 | 0.236 | 4.30 | 6.00 | |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

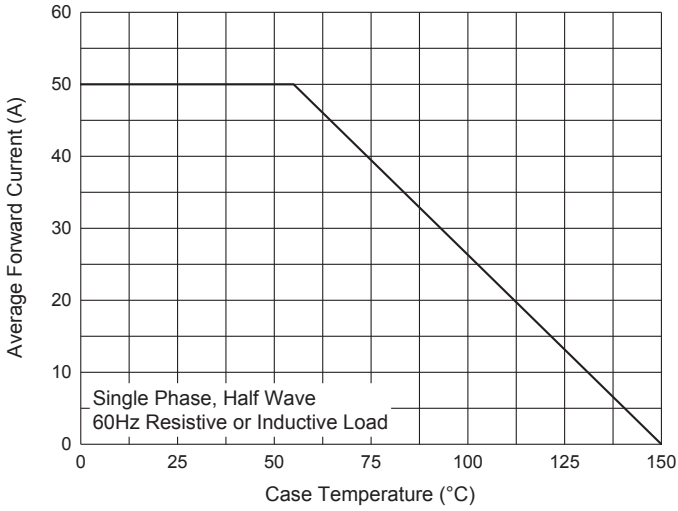


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

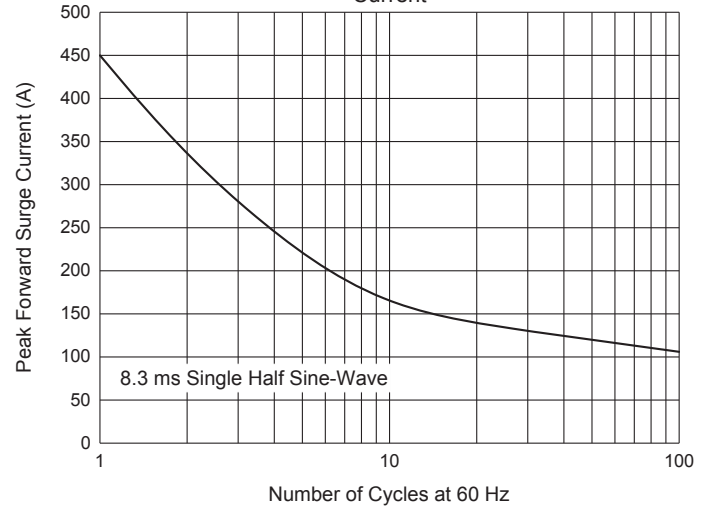


Fig. 3 - Typical Instantaneous Forward Characteristics

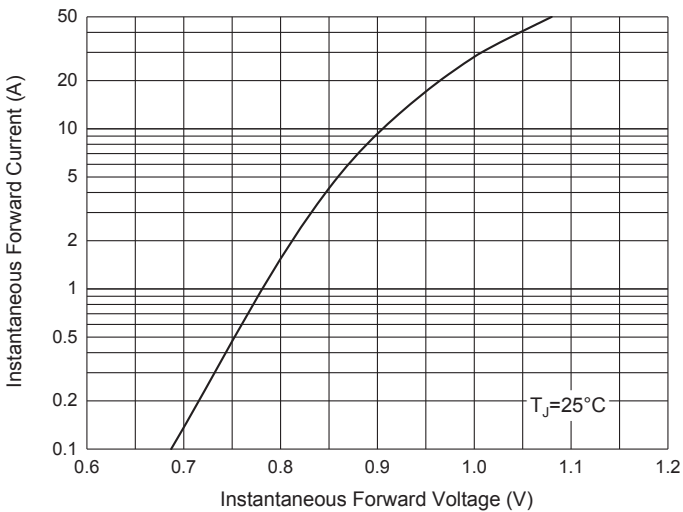
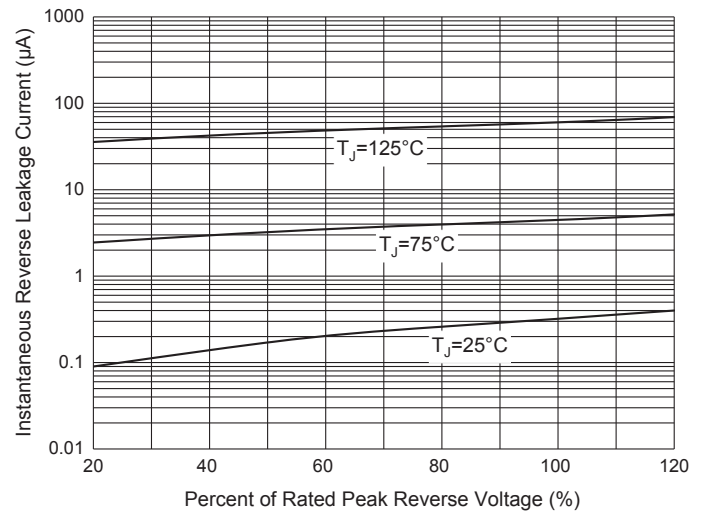


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

| Device | Packing |
|----------------|-----------------------------|
| Part Number-BP | Bulk: 50Pcs/Box, 400Pcs/Ctn |

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