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

Features

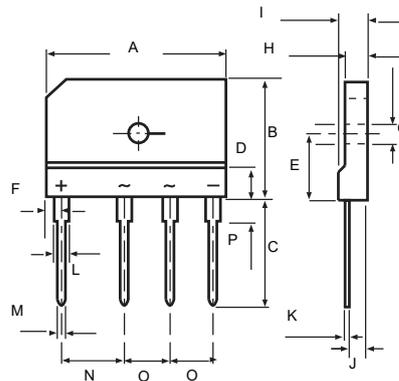
- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- Low Forward Voltage Drop, High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**25 Amp
Low VF Bridge
Rectifier
800 Volts**

Maximum Ratings @ 25°C (Unless Otherwise Specified)

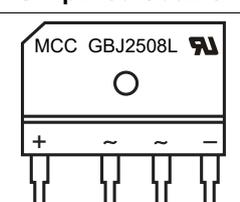
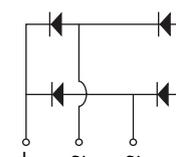
| Parameter | Symbol | Value | Unit |
|--|-------------|-------|----------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 800 | V |
| Working Peak Reverse Voltage | V_{RWM} | | |
| DC Blocking Voltage | V_R | | |
| RMS Reverse Voltage | V_{RMS} | 560 | V |
| Average Rectified Forward Current @ $T_C=87^\circ\text{C}$ (With Heatsink) | $I_{F(AV)}$ | 25 | A |
| Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave | I_{FSM} | 550 | A |
| Non-Repetitive Peak Surge Current @ 1ms Square Wave | | 1000 | |
| I^2t Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$ | I^2t | 1255 | A^2s |
| Dielectric strength @ Terminals to Case, AC 1 Minute | V_{dis} | 2.5 | KV |

GBJ



| DIMENSIONS | | | | | NOTE |
|------------|--------|-------|-------|-------|------|
| DIM | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | 1.170 | 1.190 | 29.70 | 30.30 | |
| B | 0.780 | 0.800 | 19.70 | 20.30 | |
| C | 0.670 | 0.710 | 17.00 | 18.00 | |
| D | 0.190 | 0.190 | 4.70 | 4.90 | |
| E | 0.430 | 0.440 | 10.80 | 11.20 | |
| F | 0.090 | 0.110 | 2.30 | 2.70 | |
| G | 0.120 | 0.130 | 3.10 | 3.40 | |
| H | 0.130 | 0.150 | 3.40 | 3.80 | |
| I | 0.170 | 0.190 | 4.40 | 4.80 | |
| J | 0.100 | 0.110 | 2.50 | 2.90 | |
| K | 0.020 | 0.030 | 0.60 | 0.80 | |
| L | 0.080 | 0.090 | 2.00 | 2.40 | |
| M | 0.040 | 0.040 | 0.90 | 1.10 | |
| N | 0.390 | 0.400 | 9.80 | 10.20 | |
| O | 0.290 | 0.300 | 7.30 | 7.70 | |
| P | 0.150 | 0.170 | 3.80 | 4.20 | |

Internal Structure

| Simplified Outline | Graphic Symbol |
|---|---|
|  |  |

- Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 2. High temperature solder exemption applied, see EU directive annex 7a.

Thermal characteristics

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|---------------|---|------------|-----|-----|-----|------|
| T_J | Operating Junction Temperature Range | | -55 | | 150 | °C |
| T_{stg} | Storage Temperature Range | | -55 | | 150 | °C |
| $R_{th(J-C)}$ | Thermal Resistance from Junction to Case | Note 1 | | 1.2 | | °C/W |
| $R_{th(J-A)}$ | Thermal Resistance from Junction to Ambient | Note 1 | | 5.6 | | °C/W |

Note:

1. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

Mechanical Data

Recommended Mounting Torque: 5in·lbs(#6 Screw)

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|----------------------|--------|---|-----|------|--------------|---------|
| Forward Voltage | V_F | $I_F=12.5A; T_J=25^{\circ}C$ $I_F=12.5A; T_J=125^{\circ}C$ | | 0.88 | 0.92 0.85 | V |
| Reverse Current | I_R | at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$ | | | 5 500 | μA |
| Junction Capacitance | C_J | $V_R=4V; f=1MHz; T_J=25^{\circ}C$ | | 270 | | pF |

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

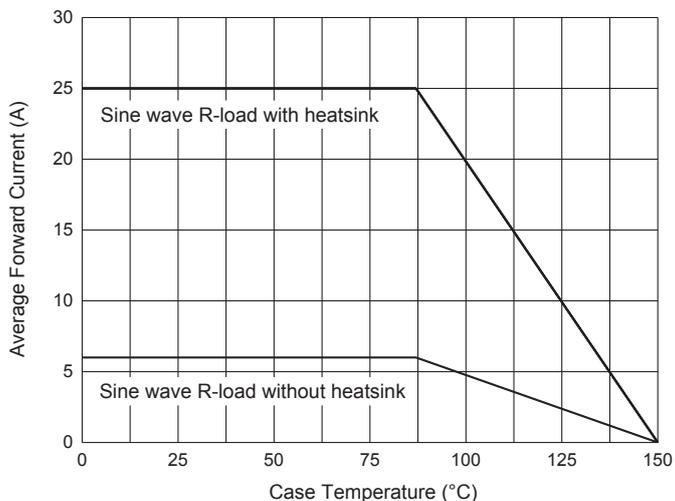


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

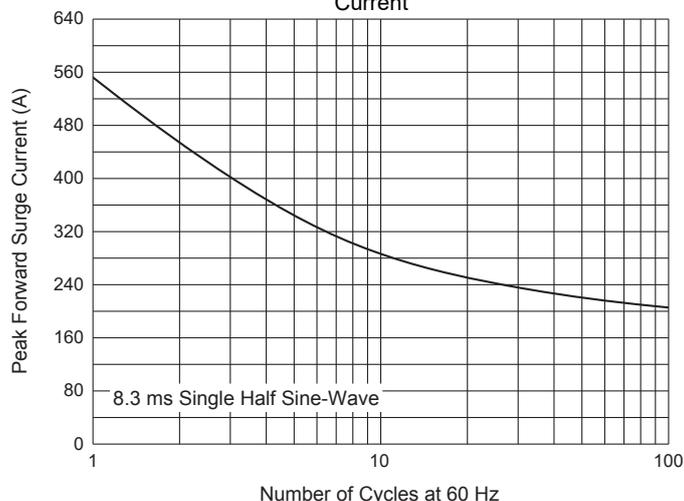


Fig. 3 - Typical Forward Characteristics

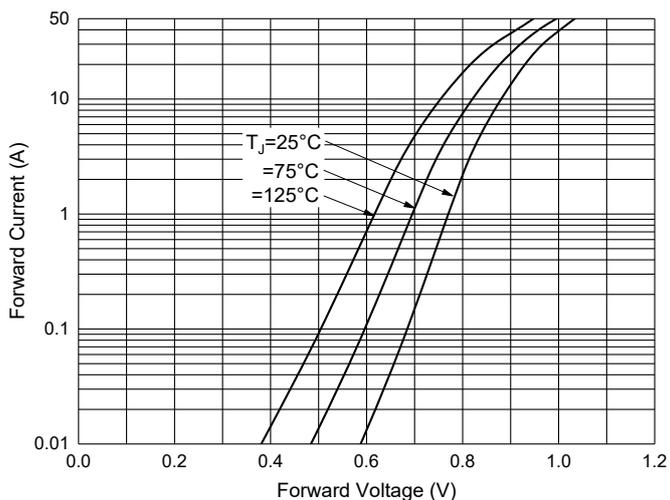


Fig. 4 - Typical Reverse Leakage Characteristics

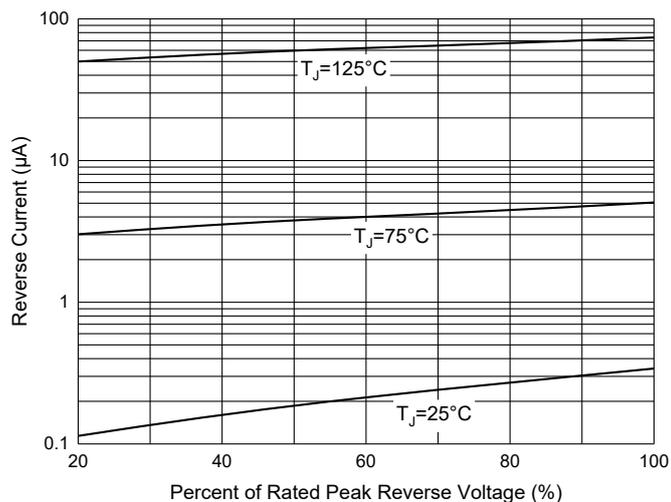
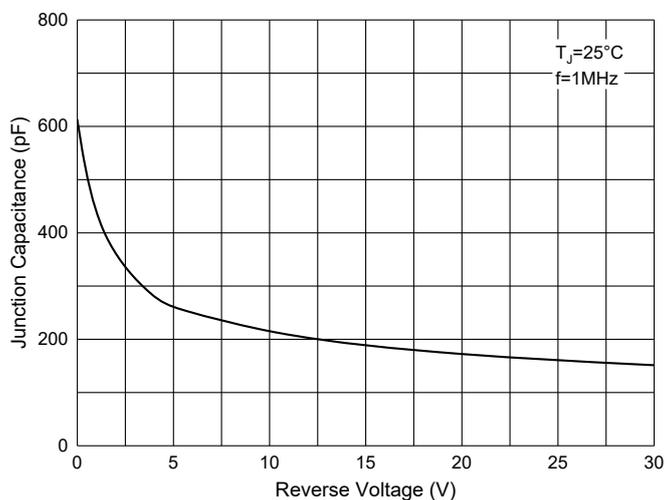


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

| Device | Packing |
|----------------|---|
| Part Number-BP | Bulk:15pcs/Tube,750pcs/Box,1500pcs/Carton |

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