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|---|----------------|
|  | <b>E502650</b> |
|---|----------------|

**Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- High Current Capability
- Low Forward Voltage Drop

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 1°C/W Junction to Case(Note 2)
- Typical Thermal Resistance: 22°C/W Junction to Ambient

**Mechanical Data**

- Mounting Torque: 5in-lbs

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| GBJ15L06        | GBJ15L06       | 600V                                   | 420V                | 600V                        |

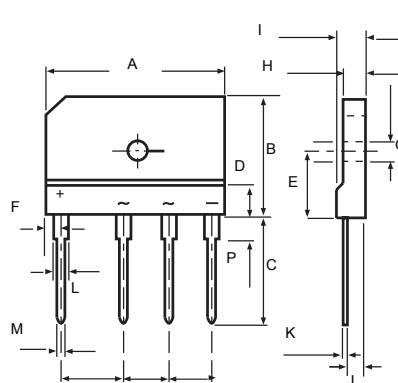
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |             |                               |  |
|---|-------------|-------------------------------|--|
| Average Forward Current                                 | $I_{F(AV)}$ | 15A<br>3.5A                   | $T_C=124^{\circ}C$ , With Heatsink<br>$T_A=25^{\circ}C$ , Without Heatsink |
| Peak Forward Surge Current                              | $I_{FSM}$   | 250A<br>500A                  | 8.3ms, Half Sine Wave<br>1.0ms, Square Wave                                |
| Current Squared Time                                    | $I^2t$      | 259A <sup>2</sup> s           | $1ms \leq t < 8.3ms$ , $T_J=25^{\circ}C$ ,<br>Rating of Per Diode          |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 0.92V<br>0.86V(Typ.)<br>0.80V | $I_{FM}=7.5A$ ; $T_J=25^{\circ}C$<br>$I_{FM}=7.5A$ ; $T_J=125^{\circ}C$    |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5μA<br>100μA                  | $T_J=25^{\circ}C$ ;<br>$T_J=125^{\circ}C$ ;                                |
| Dielectric Strength                                     | $V_{dis}$   | 2.5KV                         | Terminals to Case, AC<br>1 Minute  |
| Typical Junction Capacitance                            | $C_J$       | 160pF                         | Measured at 1.0MHz<br>$V_R=4.0V$   |
| Maximum Reverse Recovery Time                           | $t_{rr}$    | 500ns                         | $I_F=0.5A$ ; $I_R=1.0A$ ;<br>$I_{rr}=0.25A$                                |

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.  
2. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

# 15 Amp Low VF Bridge Rectifier 600 Volts

## 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  |      |

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

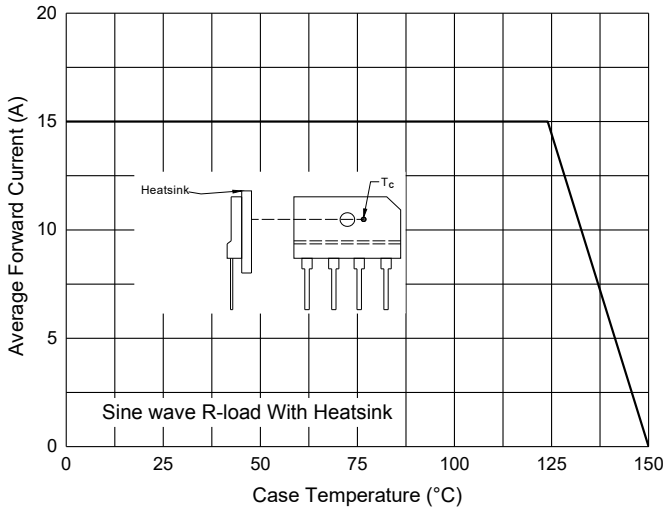


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

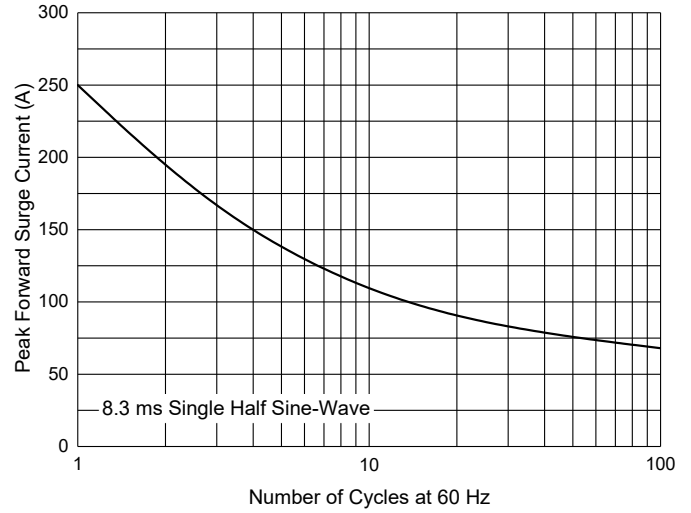


Fig. 3 - Forward Characteristics

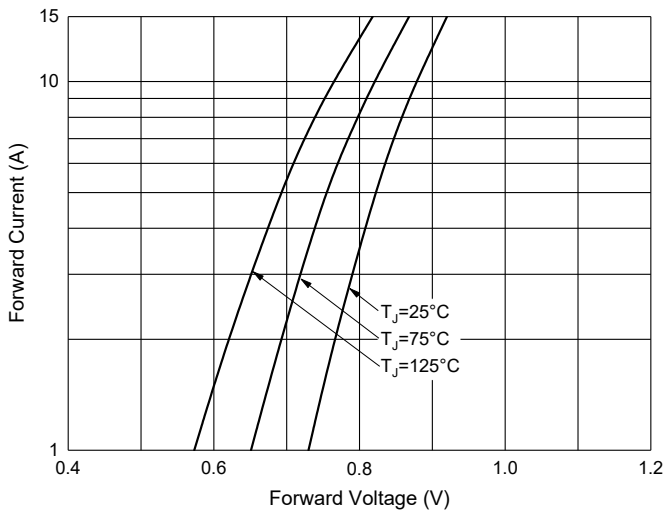
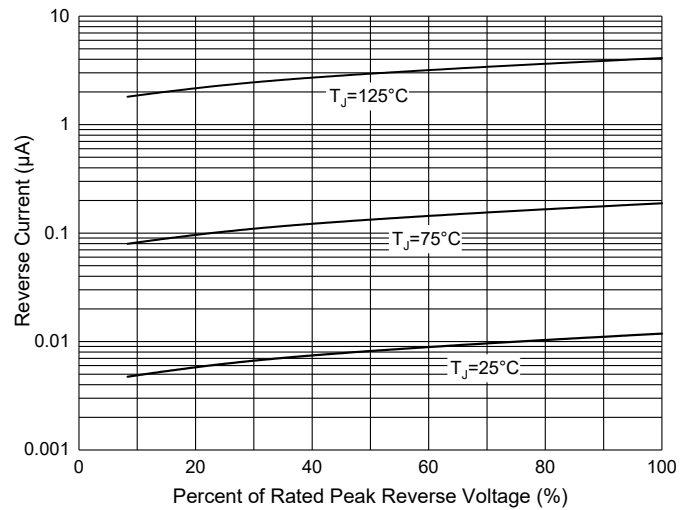


Fig. 4 - Reverse Characteristics



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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