



**E502650**

## 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

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 1°C/W Junction to Case(Note 2)
- Thermal Resistance:5.5°C/W Junction to Ambient(Note 2)
- Thermal Resistance:22°C/W Junction to Ambient (without heatsink)

## Mechanical Data

- Mounting Torque: 5in-lbs

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|----------------------------------------|---------------------|-----------------------------|
| GBJ25005        | GBJ25005       | 50V                                    | 35V                 | 50V                         |
| GBJ2501         | GBJ2501        | 100V                                   | 70V                 | 100V                        |
| GBJ2502         | GBJ2502        | 200V                                   | 140V                | 200V                        |
| GBJ2504         | GBJ2504        | 400V                                   | 280V                | 400V                        |
| GBJ2506         | GBJ2506        | 600V                                   | 420V                | 600V                        |
| GBJ2508         | GBJ2508        | 800V                                   | 560V                | 800V                        |
| GBJ2510         | GBJ2510        | 1000V                                  | 700V                | 1000V                       |

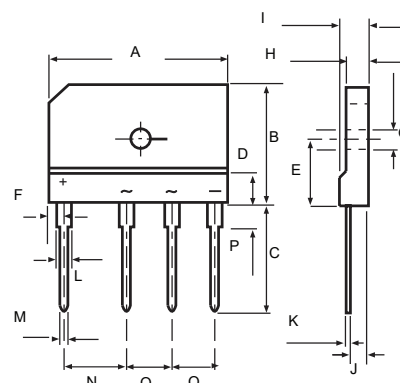
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |                      |                                                       |
|---------------------------------------------------------|-------------|----------------------|-------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 25A                  | $T_C = 100^\circ\text{C}$                             |
| Peak Forward Surge Current                              | $I_{FSM}$   | 350A<br>700A         | 8.3ms, Half Sine<br>1.0ms, Half Sine                  |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.0V                 | $I_{FM} = 12.5A; T_J = 25^\circ\text{C}$              |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10μA<br>500μA        | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ |
| Typical Junction Capacitance                            | $C_J$       | 85pF                 | Measured at 1.0MHz, $V_R = 4.0V$                      |
| Rating for Fusing                                       | $I^2t$      | 510 A <sup>2</sup> s | $t < 8.3ms$                                           |
| Dielectric Strength@ Terminals to Case, AC 1 Minute     | $V_{dis}$   | 2KV                  |                                                       |

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.

# 25 Amp Glass Passivated Bridge Rectifier 50 - 1000 Volts

GBJ



## DIMENSIONS

| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | 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

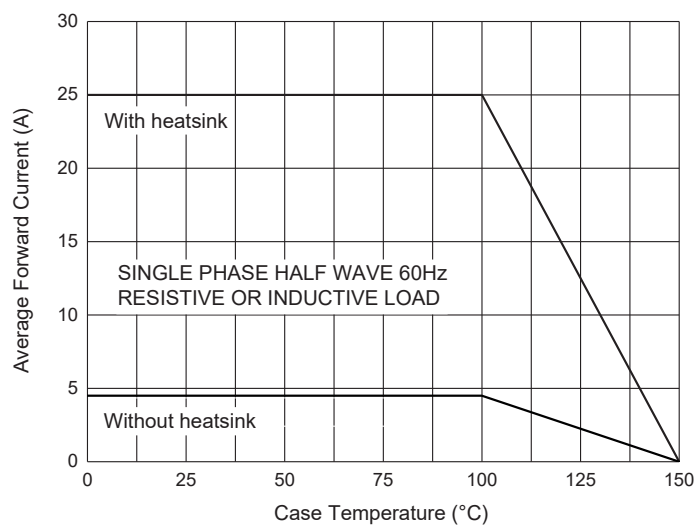


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

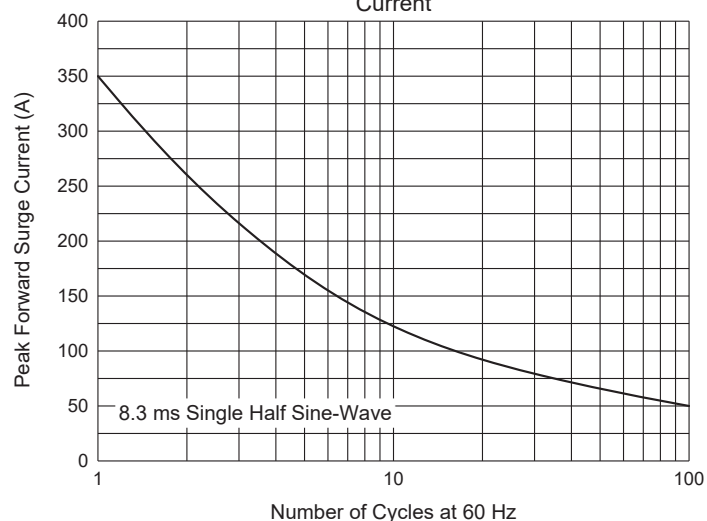


Fig. 3 - Typical Instantaneous Forward Characteristics

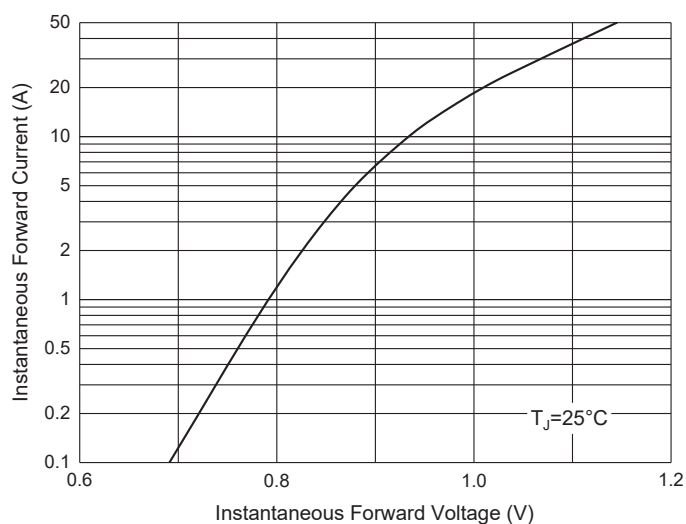
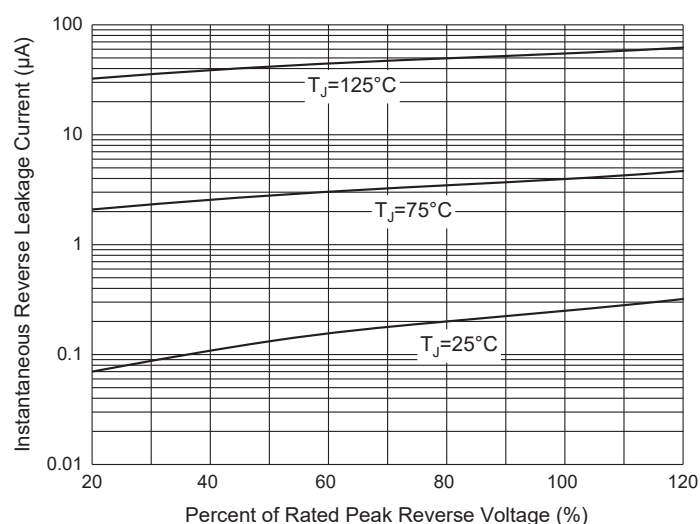


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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