

# GBJ15005 THRU GBJ1510

## Features

- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance 0.8°C/W J to C (With heatsink)
- Typical Thermal Resistance 3.5°C/W J to L (Without heatsink)
- Typical Thermal Resistance 12°C/W J to A (Without heatsink)
- UL Recognized File # E165989; Mounting torque: 5in-lbs.
- ESD Voltage: HBM: 4KV  
MM: 400V  
CDM: 800V

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| GBJ15005           | GBJ15005       | 50V                                    | 35V                 | 50V                         |
| GBJ1501            | GBJ1501        | 100V                                   | 70V                 | 100V                        |
| GBJ1502            | GBJ1502        | 200V                                   | 140V                | 200V                        |
| GBJ1504            | GBJ1504        | 400V                                   | 280V                | 400V                        |
| GBJ1506            | GBJ1506        | 600V                                   | 420V                | 600V                        |
| GBJ1508            | GBJ1508        | 800V                                   | 560V                | 800V                        |
| GBJ1510            | GBJ1510        | 1000V                                  | 700V                | 1000V                       |

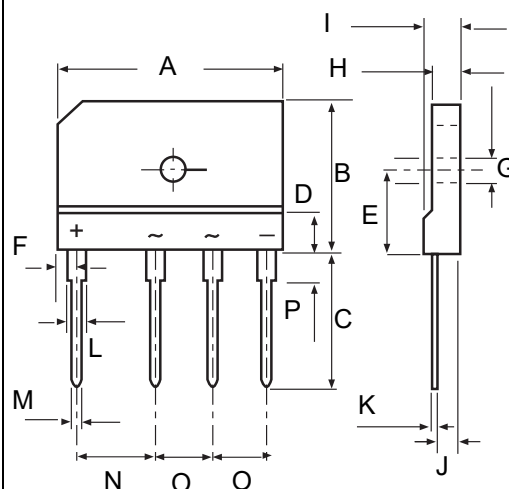
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |                           |                                                       |
|---------------------------------------------------------|-------------|---------------------------|-------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 15 A                      | $T_c = 110^\circ\text{C}$                             |
| Peak Forward Surge Current                              | $I_{FSM}$   | 240A                      | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.0V                      | $I_{FM} = 7.5A$<br>$T_J = 25^\circ\text{C}$           |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu\text{A}$<br>500uA | $T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ |
| $I^2t$ Rating for fusing                                | $I^2t$      | 240A <sup>2</sup> S       | ( $t < 8.3\text{ms}$ )                                |
| Typical Junction Capacitance                            | $C_J$       | 60 pF                     | Measured at 1.0MHz, $V_R = 4.0V$                      |

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a

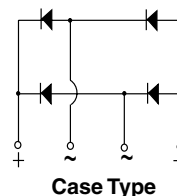
## 15 Amp Glass Passivated Bridge Rectifier 50 to 1000 Volts

### GBJ



### DIMENSIONS

| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 1.170  | 1.190 | 29.70 | 30.30 |      |
| B   | .780   | .800  | 19.70 | 20.30 |      |
| C   | .670   | .710  | 17.00 | 18.00 |      |
| D   | .019   | .019  | 4.70  | 4.90  |      |
| E   | .430   | .440  | 10.80 | 11.20 |      |
| F   | .090   | .110  | 2.30  | 2.70  |      |
| G   | .120   | .130  | 3.10  | 3.40  |      |
| H   | .130   | .150  | 3.40  | 3.80  |      |
| I   | .170   | .190  | 4.40  | 4.80  |      |
| J   | .100   | .110  | 2.50  | 2.90  |      |
| K   | .020   | .030  | 0.60  | 0.80  |      |
| L   | .080   | .090  | 2.00  | 2.40  |      |
| M   | .040   | .040  | 0.90  | 1.10  |      |
| N   | .390   | .400  | 9.80  | 10.20 |      |
| O   | .290   | .300  | 7.30  | 7.70  |      |
| P   | .150   | .170  | 3.80  | 4.20  |      |



# RATING AND CHARACTERISTIC CURVES

## GBJ15005 thru GBJ1510

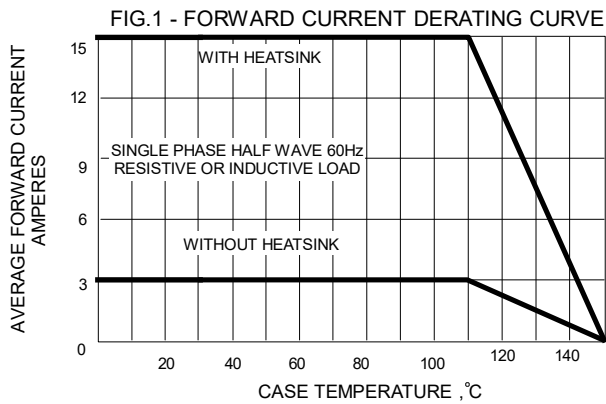


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

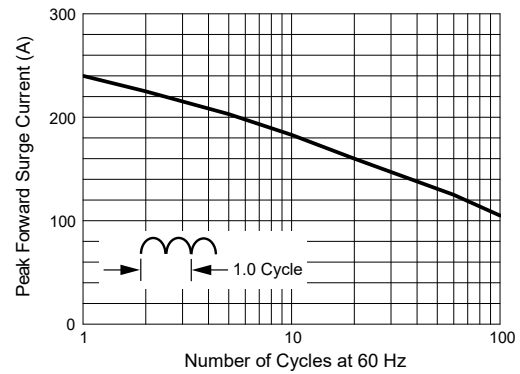


FIG.3 - TYPICAL JUNCTION CAPACITANCE

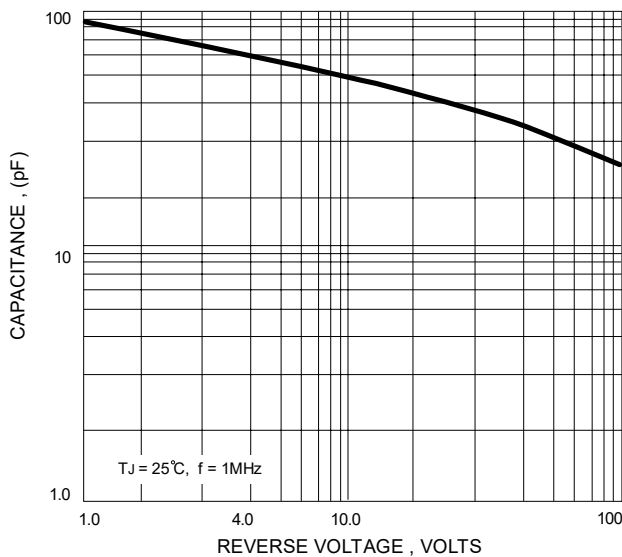


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

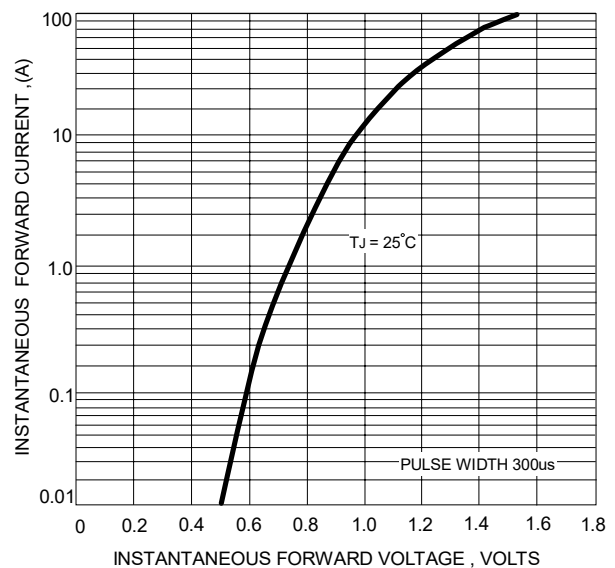
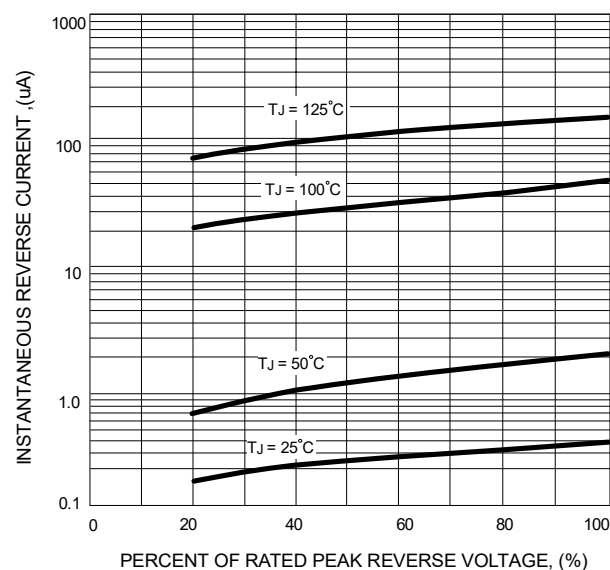


FIG.5 - TYPICAL REVERSE CHARACTERISTICS





## Ordering Information :

| Device         | Packing          |
|----------------|------------------|
| Part Number-BP | Bulk: 750pcs/Box |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

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