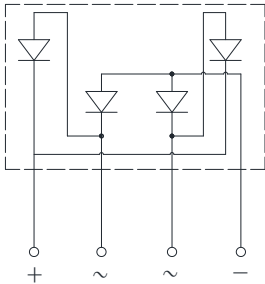
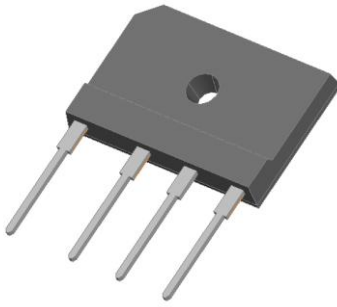


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

Mechanical Data

- **Package:** 6KBJ
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■ Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GBJ15005 | GBJ1501 | GBJ1502 | GBJ1504 | GBJ1506 | GBJ1508 | GBJ1510 |
|---|------------------|----------------------|--|---------|---------|---------|---------|---------|---------|
| Device marking code | | | GBJ15005 | GBJ1501 | GBJ1502 | GBJ1504 | GBJ1506 | GBJ1508 | GBJ1510 |
| Repetitive peak reverse voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load | IO | A | With heatsink $T_c=87^\circ\text{C}$ | | | | | | |
| | | | Without heatsink $T_a=25^\circ\text{C}$ | | | | | | |
| Surge(non-repetitive)forward current @60Hz half sine wave, 1 cycle, $T_j=25^\circ\text{C}$ | IFSM | A | 250 | | | | | | |
| Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode | I^2t | A^2S | 259 | | | | | | |
| Storage temperature | T_{stg} | $^\circ\text{C}$ | -55 ~ +150 | | | | | | |
| Junction temperature | T_j | $^\circ\text{C}$ | -55 ~ +150 | | | | | | |
| Dielectric strength @ terminals to case, AC 1 minute | Vdis | KV | 2 | | | | | | |
| Mounting torque @ recommend torque: 5kg · cm | Tor | kg · cm | 8 | | | | | | |

■ Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GBJ15005 | GBJ1501 | GBJ1502 | GBJ1504 | GBJ1506 | GBJ1508 | GBJ1510 |
|---|------------------|---------------|-----------------------------------|----------|---------|---------|---------|---------|---------|---------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =7.5A | 1.0 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =V _{RRM} | 5 | | | | | | |



GBJ15005 THRU GBJ1510

■ Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | | SYMBOL | UNIT | GBJ15005 | GBJ1501 | GBJ1502 | GBJ1504 | GBJ1506 | GBJ1508 | GBJ1510 |
|--------------------|--|------------------|--------------------|----------|---------|---------|---------|---------|---------|---------|
| Thermal Resistance | Between junction and ambient, Without heatsink | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | 22 | | | | | | |
| | Between junction and case, With heatsink | $R_{\theta J-C}$ | | 1.5 | | | | | | |

■ Ordering Information (Example)

| PREFERRED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|-----------------------|--------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| GBJ15005 THRU GBJ1510 | B1 | Approximate 6.5 | 15 | 750 | 1500 | TUBE |
| GBJ15005 THRU GBJ1510 | A1 | Approximate 6.5 | 250 | 250 | 2000 | BOX |

■ Characteristics(Typical)

FIG1: I_o - T_c Curve

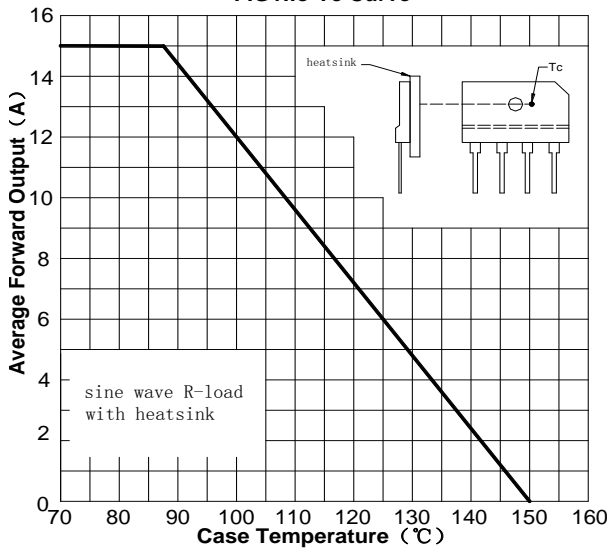


FIG2: Surge Forward Current Capability

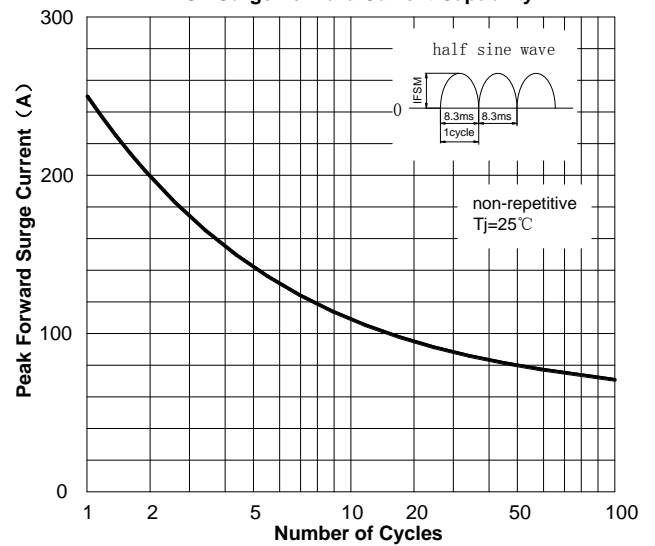


FIG3: Forward Voltage

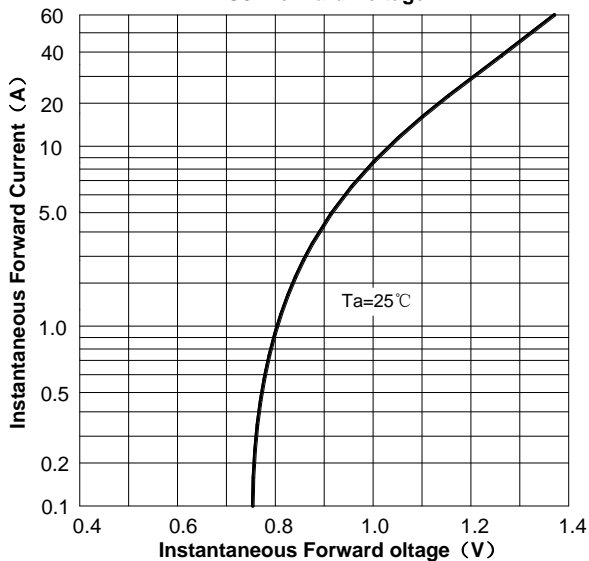
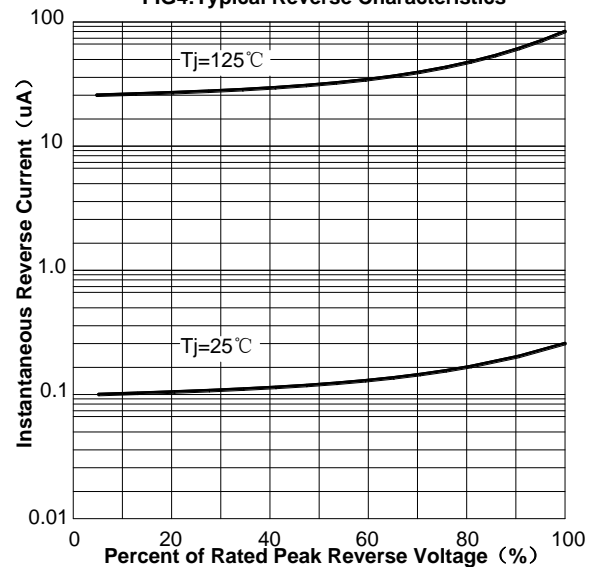
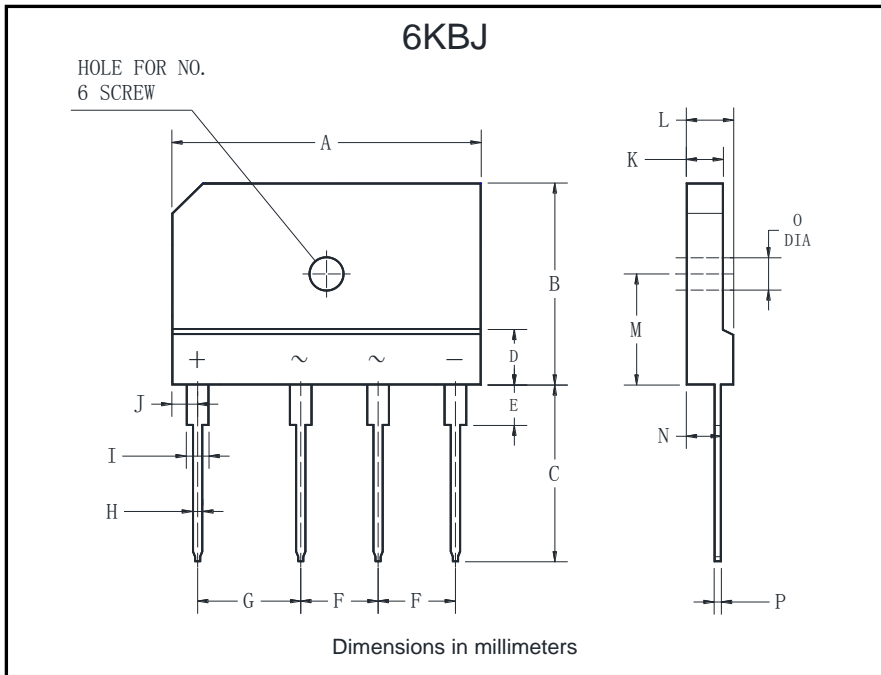


FIG4: Typical Reverse Characteristics





■ Outline Dimensions



| 6KBJ | | |
|------|------|------|
| Dim | Min | Max |
| A | 29.7 | 30.3 |
| B | 19.7 | 20.3 |
| C | 17.0 | 18.0 |
| D | 4.8 | 5.8 |
| E | 3.8 | 4.2 |
| F | 7.3 | 7.7 |
| G | 9.8 | 10.2 |
| H | 0.9 | 1.1 |
| I | 2.0 | 2.4 |
| J | 2.3 | 2.7 |
| K | 3.4 | 3.8 |
| L | 4.4 | 4.8 |
| M | 10.8 | 11.2 |
| N | 3.1 | 3.7 |
| O | 3.1 | 3.4 |
| P | 0.6 | 0.8 |



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