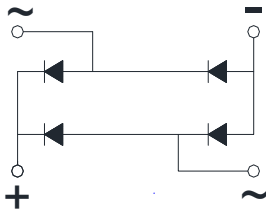
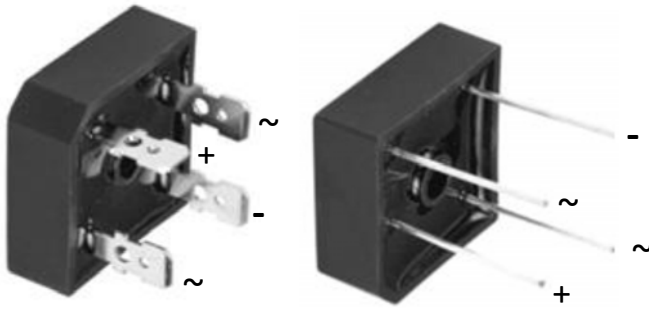


Bridge Rectifiers



Features

- UL recognition, file #E230084
- Universal 3-way terminals: snap-on, wire wrap-around, or PCB mounting
- Glass passivated chip junction
- High surge current capability
- Low thermal resistance
- Solder dip 275 °C max. 7 s, per JESD 22-B106

Typical Applications

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

Mechanical Data

- **Package:** BR、BR-W
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Suffix letter "W" added to indicate wire leads (e.g.BR1510W).

■Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | BR15005 | BR1501 | BR1502 | BR1504 | BR1506 | BR1508 | BR1510 |
|--|--------|-------|------------|--------|--------|--------|--------|--------|--------|
| Device marking code | | | BR15005 | BR1501 | BR1502 | BR1504 | BR1506 | BR1508 | BR1510 |
| Maximum Repetitive Peak Reverse Voltage | VRRM | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | VRMS | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | VDC | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, Tc=90°C | IO | A | 15 | | | | | | |
| Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave, 1 cycle, Tj=25°C | IFSM | A | 300 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C | | | 600 | | | | | | |
| Current squared time @1ms≤t≤8.3ms Tj=25°C, Rating of per diode | I²t | A²S | 374 | | | | | | |
| Storage temperature | Tstg | °C | -55 ~ +150 | | | | | | |
| Junction temperature | Tj | °C | -55 ~ +150 | | | | | | |
| Dielectric strength @ Terminals to case, AC 1 minute | Vdis | KV | 2.5 | | | | | | |
| Mounting torque @Recommend torque: 5kg·cm | Tor | kg·cm | 8 | | | | | | |



BR15005(W) THRU BR1510(W)

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | BR15005 | BR1501 | BR1502 | BR1504 | BR1506 | BR1508 | BR1510 |
|---|----------------|------|---|---------|--------|--------|--------|--------|--------|--------|
| 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 _R | μA | T _j =25°C | 5 | | | | | | |
| | | | T _j =125°C | 100 | | | | | | |
| Typical junction capacitance | C _j | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 110 | | | | | | |

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

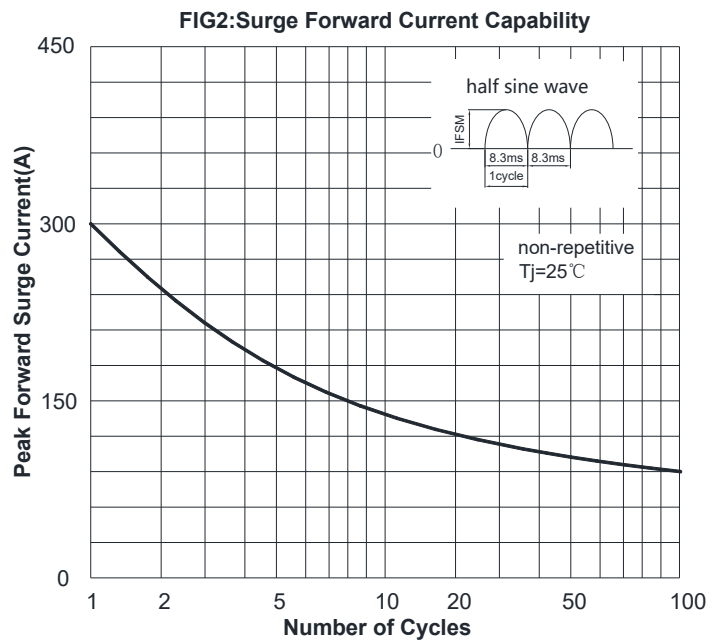
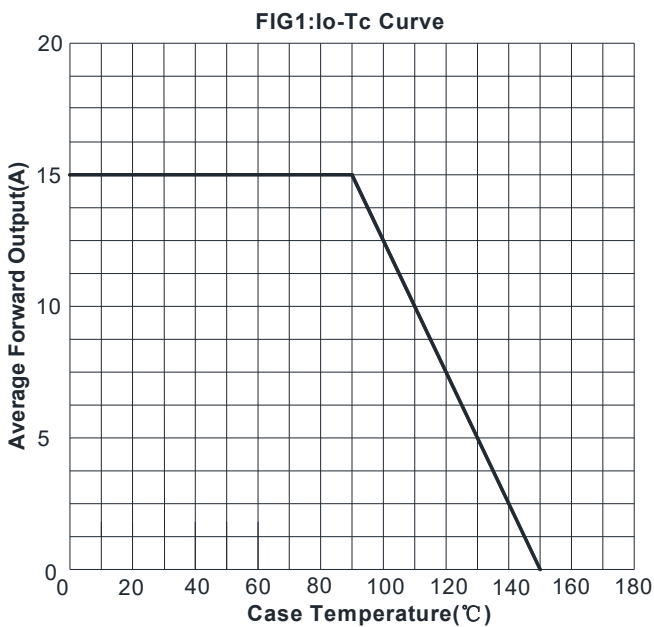
| PARAMETER | SYMBOL | UNIT | BR15005 | BR1501 | BR1502 | BR1504 | BR1506 | BR1508 | BR1510 |
|---|-------------------|------|---------|--------|--------|--------|--------|--------|--------|
| Thermal Resistance Between junction and case, With heatsink | R _{θJ-C} | °C/W | 2.3 | | | | | | |

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

■ Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT (g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|--------------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| BR15005 ~ BR1510 | A1 | Approximate 18.6 | 50 | 50 | 500 | Paper Box |
| BR15005W ~ BR1510W | A1 | Approximate 16.5 | 50 | 50 | 500 | Paper Box |

■ Characteristics (Typical)





BR15005(W) THRU BR1510(W)

FIG3: Typical Forward Voltage

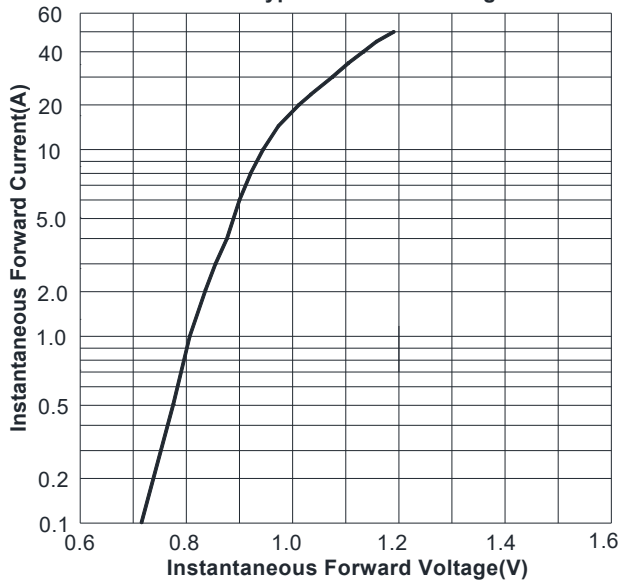
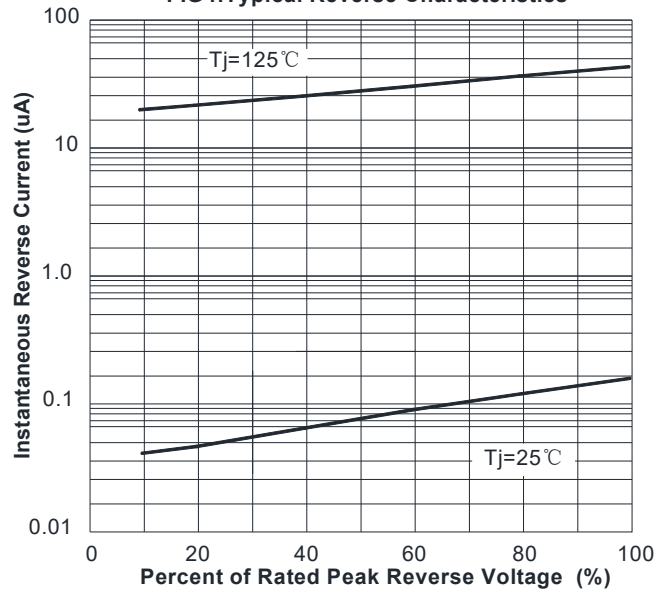
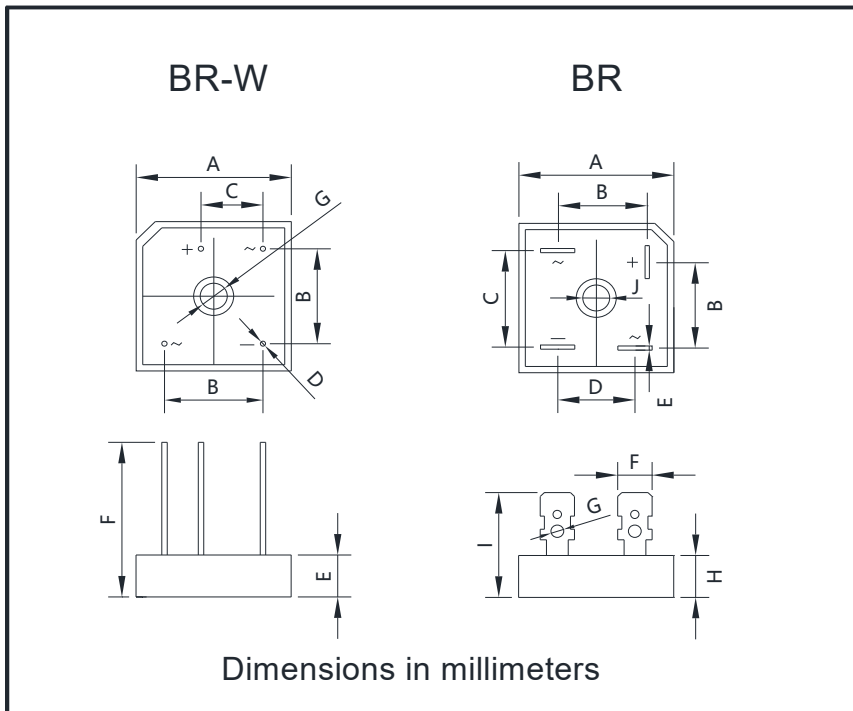


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



| BR-W | | |
|------|------|------|
| Dim | Min | Max |
| A | 28.2 | 28.8 |
| B | 17.1 | 19.1 |
| C | 10.4 | 12.4 |
| D | 0.95 | 1.05 |
| E | 10.8 | 11.2 |
| F | 30 | / |
| G | 4.5 | 5.5 |

| BR | | |
|-----|------|------|
| Dim | Min | Max |
| A | 28.2 | 28.8 |
| B | 15.3 | 17.3 |
| C | 17.1 | 19.1 |
| D | 13.2 | 15.2 |
| E | 0.75 | 0.85 |
| F | 6.2 | 6.4 |
| G | 2.3 | 2.5 |
| H | 10.8 | 11.2 |
| I | 19 | / |
| J | 4.5 | 5.5 |



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