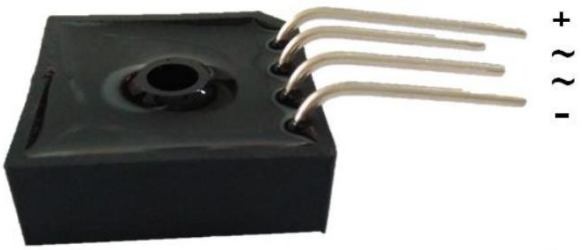
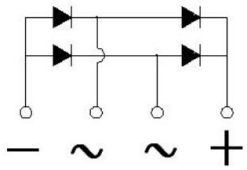
# Bridge Rectifiers




## Features

- Universal 3-way terminals：snap-on，wire wrap-around，or PCB mounting
- Glass passivated chip junction
- 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 power supply, home appliances, office equipment, industrial automation applications.

## Mechanical Data

- **Package**: BR-L
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

## ■Maximum Ratings ($T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | BR25005L | BR2501L | BR2502L | BR2504L | BR2506L | BR2508L | BR2510L |
|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | BR25005L | BR2501L | BR2502L | BR2504L | BR2506L | BR2508L | BR2510L |
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage | $V_{RMS}$ | V | 35 | 70 | 140 | 280 | 420 | 560 | 700 |
| Maximum DC blocking Voltage | $V_{DC}$ | V | 50 | 100 | 200 | 400 | 600 | 800 | 1000 |
| Average rectified output current @60Hz sine wave, R-load, $T_C$ =75℃ | $I_O$ | A | 25 | | | | | | |
| Forward Surge Current (Non-repetitive) @8.3ms, Half-sine wave,1 cycle, Tj=25℃ | $I_{FSM}$ | A | 400 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | 800 | | | | | | |
| Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode | $I^2t$ | $A^2S$ | 664 | | | | | | |
| Storage temperature | $T_{stg}$ | ℃ | -55 ~ +150 | | | | | | |
| Junction temperature | Tj | ℃ | -55 ~ +150 | | | | | | |
| Dielectric strength @ Terminals to case, AC 1 minute | Vdis | KV | 2.5 | | | | | | |
| Mounting torque @Recommend torque：5kg·cm | Tor | kg·cm | 8 | | | | | | |

## ■Electrical Characteristics（$T_a$=25℃ Unless otherwise specified）

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | BR25005L | BR2501L | BR2502L | BR2504L | BR2506L | BR2508L | BR2510L |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=12.5A | 1.0 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | IR | μA | Tj=25℃ | 5 | | | | | | |
| | | | Tj=125℃ | 100 | | | | | | |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 145 | | | | | | |

## ■Thermal Characteristics （$T_a$=25℃ Unless otherwise specified）

| PARAMETER | | SYMBOL | UNIT | BR25005L | BR2501L | BR2502L | BR2504L | BR2506L | BR2508L | BR2510L |
|---|---|---|---|---|---|---|---|---|---|---|
| Thermal Resistance | Between junction and case, With heatsink | $R_{\theta J-C}$ | ℃/W | 2.1 | | | | | | |

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

## ■Ordering Information (Example)

| PREFERED P/N | PACKAGE CODE | UNIT WEIGHT (g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| BR25005L ~ BR2510L | A1 | Approximate 17.1 | 60 | 60 | 600 | Paper Box |

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

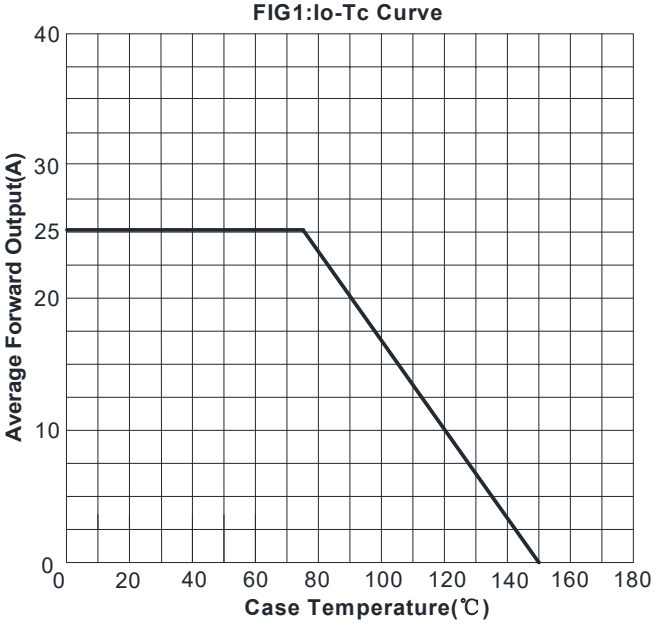
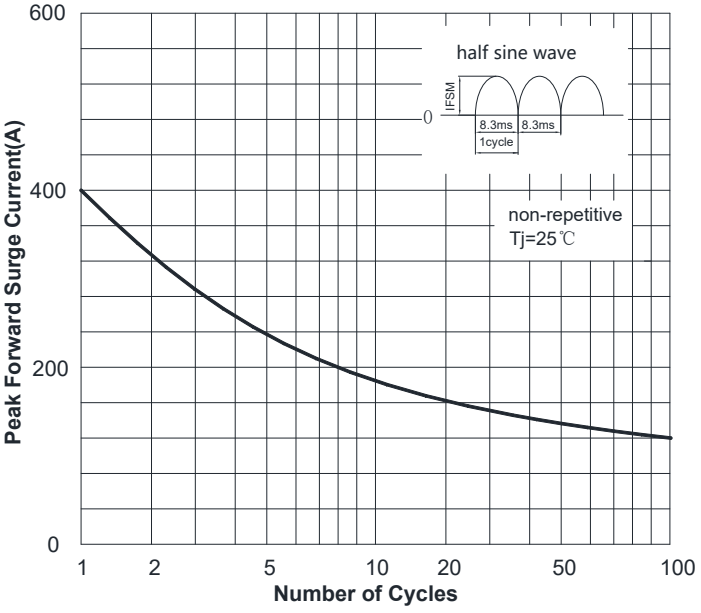
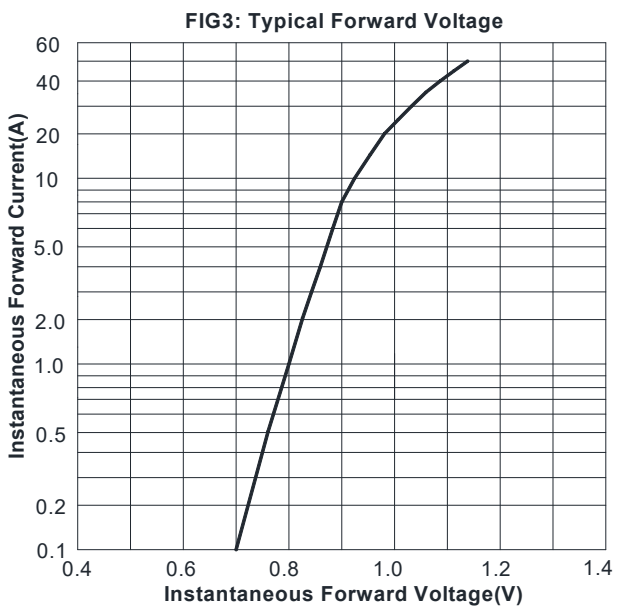
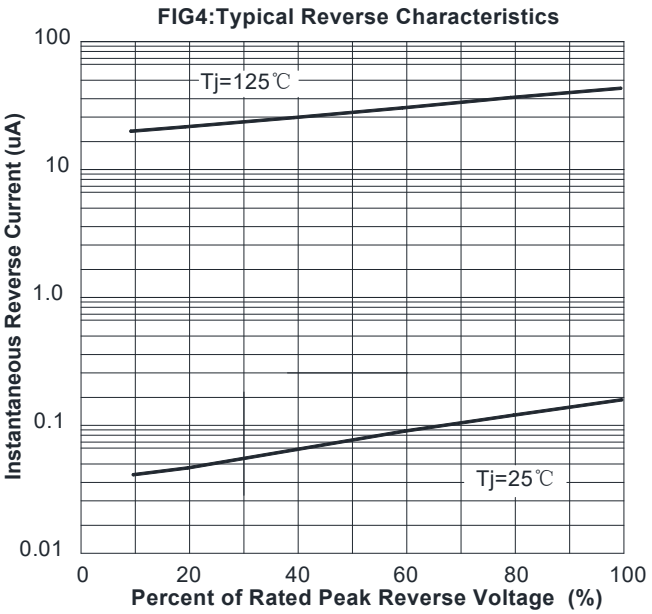


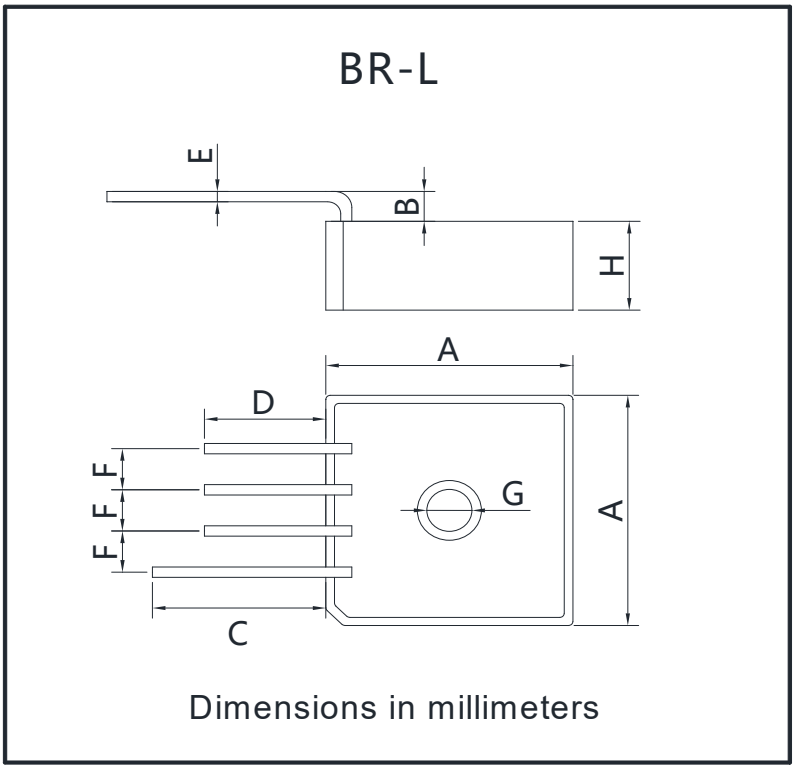

FIG2:Surge Forward Current Capability






## ■ Outline Dimensions




| BR-L | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| A | 28.2 | 28.8 |
| B | 3.0 | 4.5 |
| C | 19.1 | / |
| D | 13.9 | / |
| E | 1.23 | 1.33 |
| F | 4.6 | 5.6 |
| G | 4.5 | 5.5 |
| H | 10.8 | 11.2 |

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