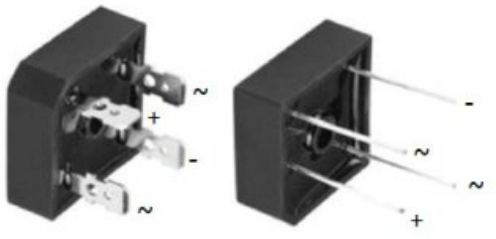
# Bridge Rectifiers

## Features



●Low thermal resistance;

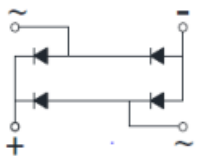
●Glass Passivated chip junction;

●High Surge current capability;

●Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

## Typical Applications

●General purpose use in AC/DC bridge full wave rectification for Server、Frequency converter、Industrial power supply.



**BR**

## Mechanical Data

●Case: **BR**

●Terminals: Plated leads solderable per MIL-STD-750, Method 2026;

●High temperature soldering guaranteed: Solder Dip 260°C,10seconds;

●Polarity: As marked on body;

**Absolute Maximum Ratings** ($T_A$=25°C unless otherwise noted)

| Parameter | Symbol | BR35 005 | BR35 01 | BR35 02 | BR35 04 | BR35 06 | BR35 08 | BR35 10 | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Average rectified output current@60Hz sine wave, R-load, Tc =75℃ | Io | 35 | | | | | | | A |
| Forward Surge Current (Non-repetitive)@8.3ms, Half-sine wave,1 cycle, Tj=25℃ | IFSM | 400 | | | | | | | A |
| Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode | I2t | 664 | | | | | | | A2S |
| Dielectric strength@ Terminals to case, AC 1 minute | Vdis | 2.5 | | | | | | | KV |
| Storage temperature | Tstg | -55 ~ +150 | | | | | | | ℃ |
| Junction temperature | Tj | -55 ~ +150 | | | | | | | ℃ |

## Thermal Characteristics

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Between junction and case, With heatsink | RθJ-C | 1.6 | °C/W |

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

## Electrical Characteristics ($T_A$ =25°C unless otherwise noted)

| Parameter | Test condition | Symbol | BR35 005 | BR35 01 | BR35 02 | BR35 04 | BR35 06 | BR35 08 | BR35 10 | UNIT |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | IFM=17.5A | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage per diode | Tj =25℃ | $I_R$ | 5 | | | | | | | μA |
| | $T_j$ =125℃ | | 100 | | | | | | | μA |
| Typical junction capacitance | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | $C_j$ | 110 | | | | | | | pF |

## Typical Characteristics Curves

($T_A$ = 25°C unless otherwise noted)

FIG1:Io-Tc Curve

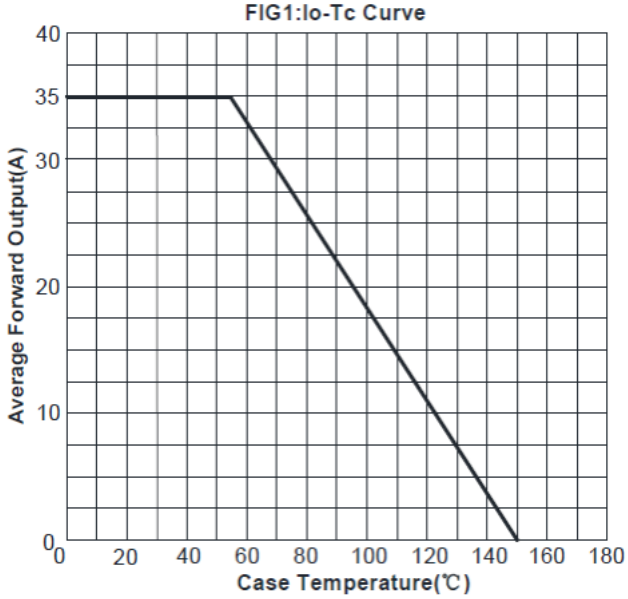



FIG2:Surge Forward Current Capability

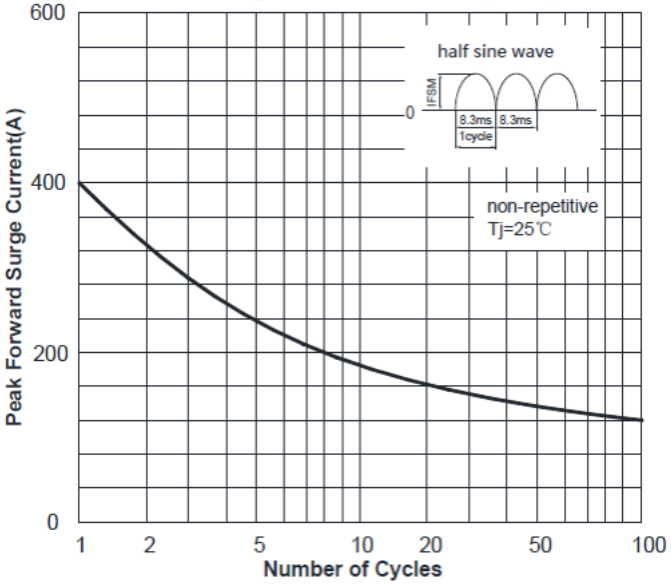



FIG3: Typical Forward Voltage

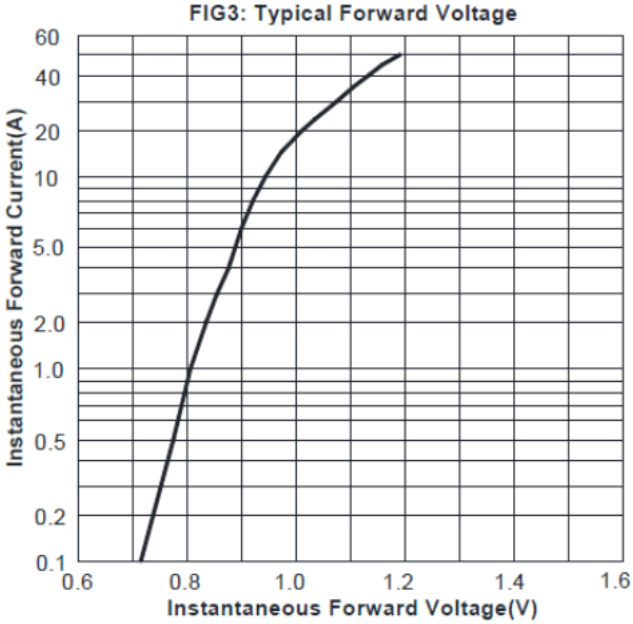
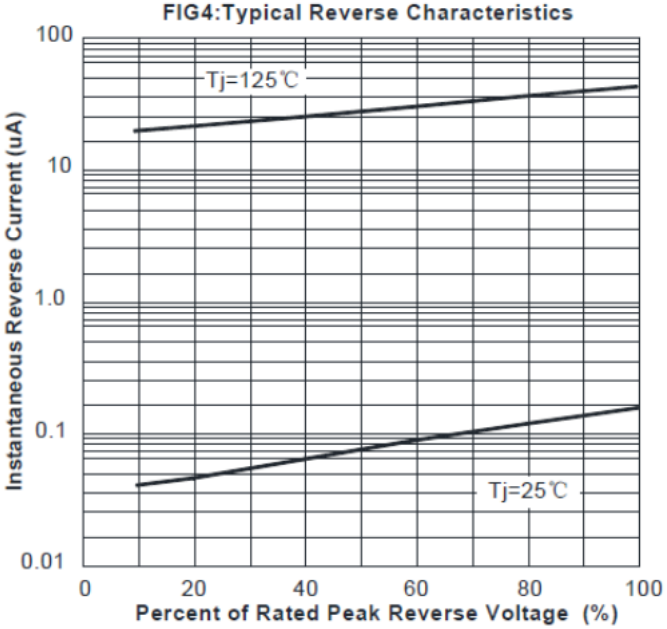
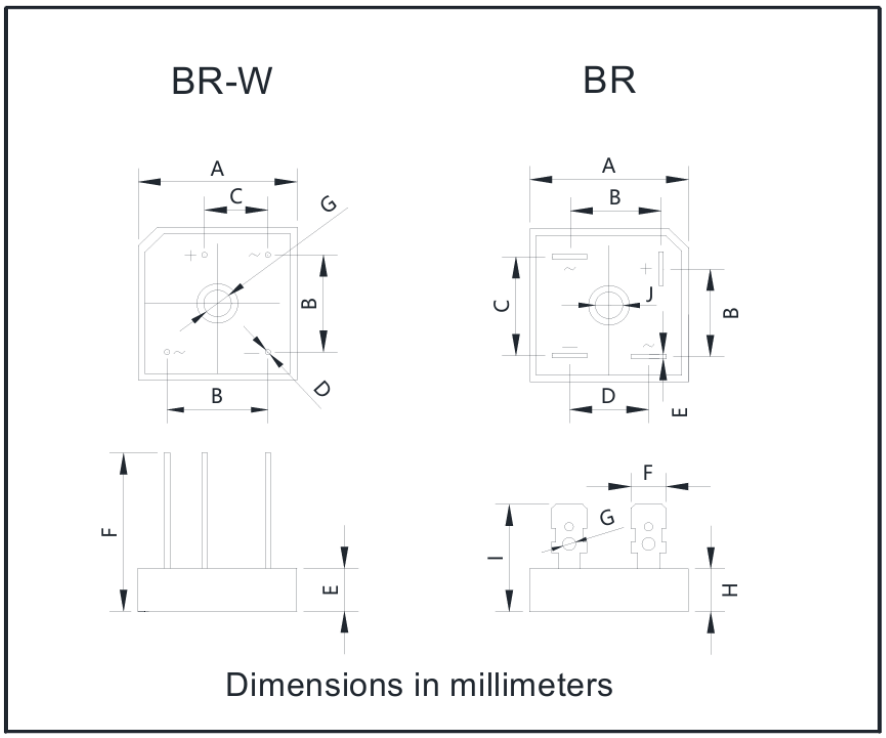



FIG4:Typical Reverse Characteristics



## Outline Dimensions

（Unit: millimeters)




| 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 |

## Revision History

| Document Version | Date of release | Discroption of changes |
|---|---|---|
| Rev.A | 2021/3/18 | Released Datasheet |
| | | |

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