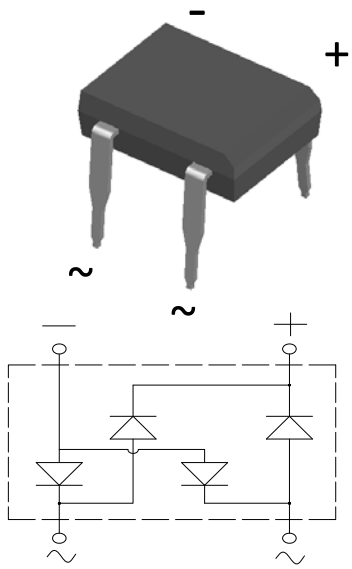
# Bridge Rectifiers




## Features

- 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 SMPS, lighting ballast, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

## Mechanical Data

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

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

| PARAMETER | SYMBOL | UNIT | DB101 | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 |
|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | DB101 | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 |
| 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, Tc=134℃ | $I_O$ | A | 1.0 | | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃ | $I_{FSM}$ | A | 30 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | 60 | | | | | | |
| Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode | $I^2t$ | $A^2s$ | 3.7 | | | | | | |
| Storage temperature | $T_{stg}$ | ℃ | -55 ~ +150 | | | | | | |
| Junction temperature | $T_j$ | ℃ | -55 ~ +150 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | DB101 | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=0.5A | 1.0 | | | | | | |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_R$ | μA | $T_j$ =25℃ | 5 | | | | | | |
| | | | $T_j$ =125℃ | 100 | | | | | | |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 12 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | DB101 | DB102 | DB103 | DB104 | DB105 | DB106 | DB107 |
|---|---|---|---|---|---|---|---|---|---|
| Typical Thermal Resistance | RθJ-A | ℃/W | 40.0 | | | | | | |
| | RθJ-L | | 15.0 | | | | | | |
| | RθJ-C | | 8.0 | | | | | | |

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm

## ■Ordering Information (Example)

| PREFERED P/N | PACKING CODE | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---|---|---|---|---|---|---|
| DB101~ DB107 | B1 | Approximate 0.39 | 50 | 2500 | 10000 | Tube |

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

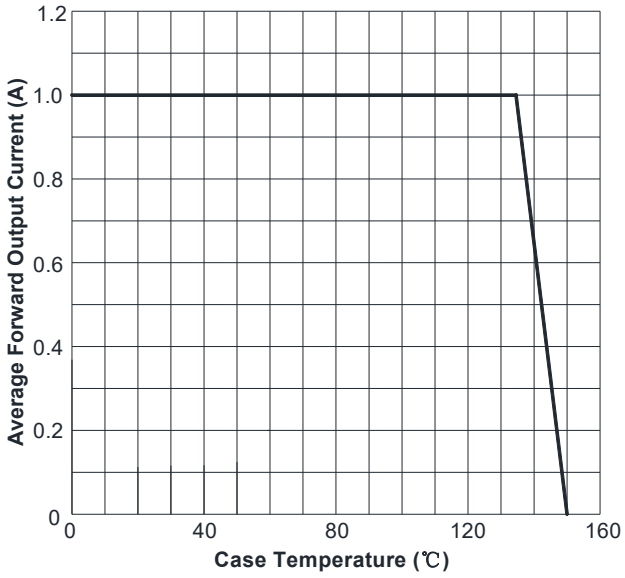



FIG2:Surge Forward Current Capability

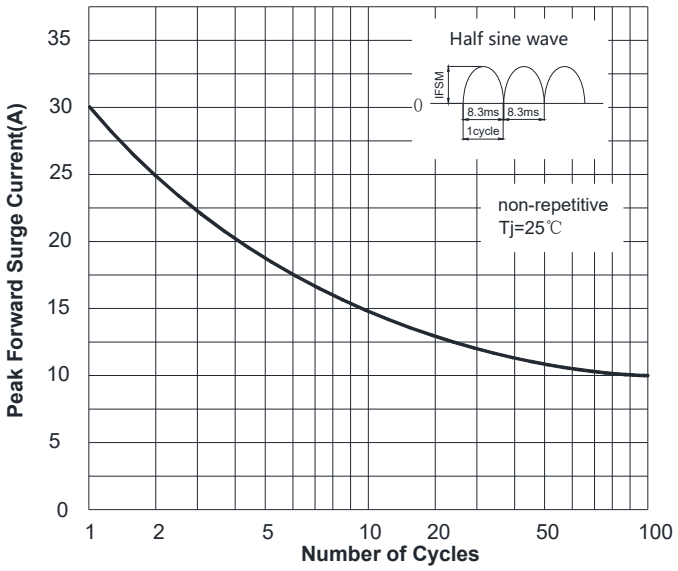



FIG3: Typical Forward Voltage

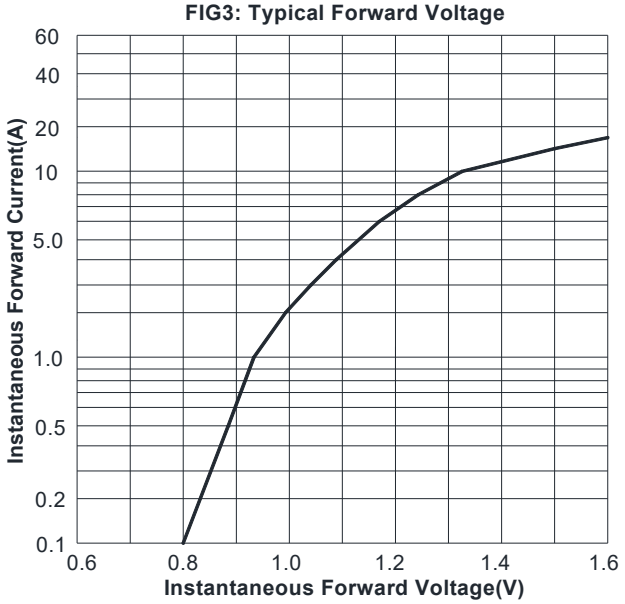
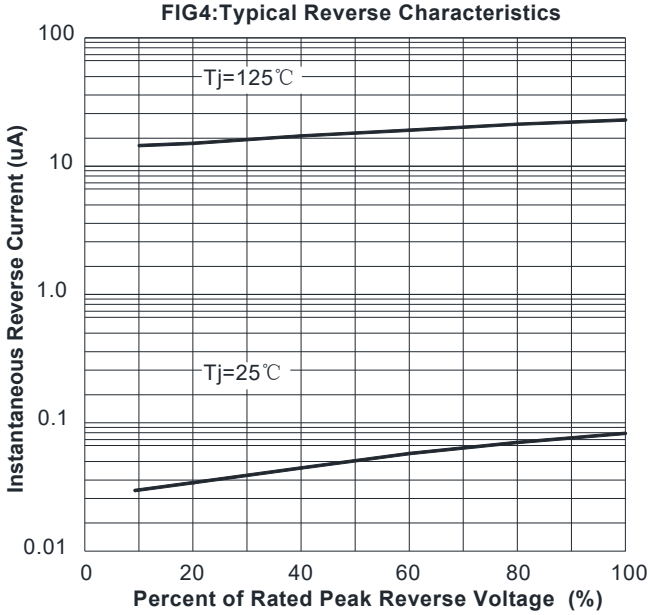
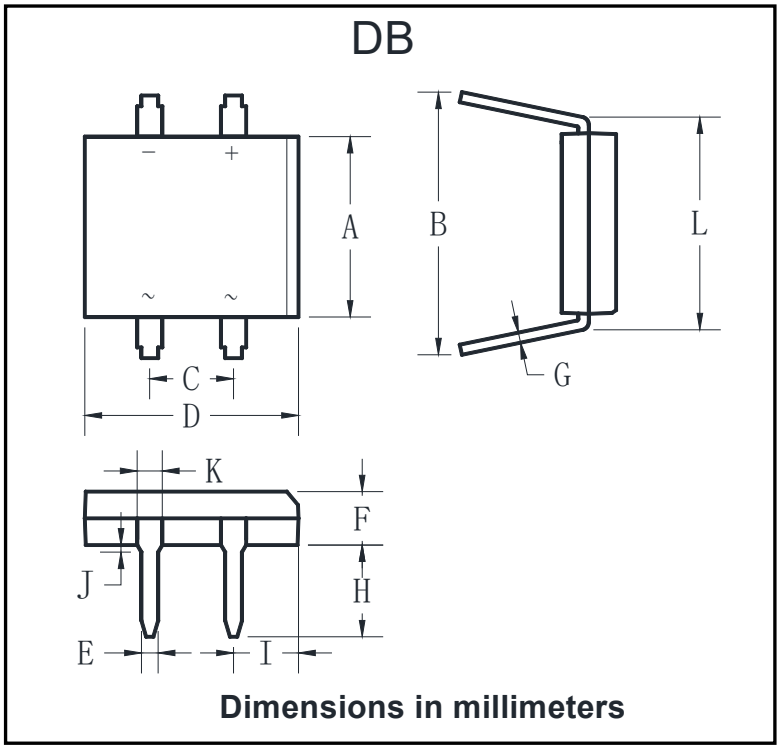



FIG4:Typical Reverse Characteristics



## ■ Outline Dimensions




| DB | | |
|---|---|---|
| Dim | Min | Max |
| A | 6.20 | 6.50 |
| B | 7.60 | 8.90 |
| C | 5.00 | 5.20 |
| D | 8.13 | 8.51 |
| E | 0.46 | 0.58 |
| F | 2.80 | 3.30 |
| G | 0.22 | 0.33 |
| H | 3.81 | 4.69 |
| I | 1.39 | 1.90 |
| J | 1.27 | 2.03 |
| K | 0.89 | 1.14 |
| L | 7.24 | 8.00 |

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