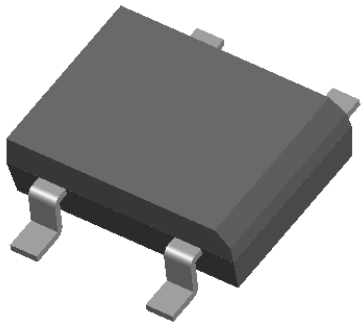
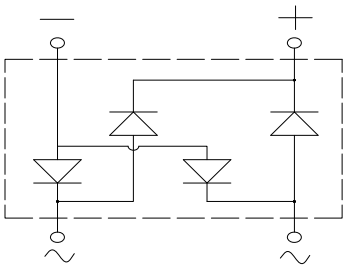
# Bridge Rectifiers





## Features

- Glass passivated chip junction
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

## 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**: DBLS
  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 | DBL201S | DBL202S | DBL203S | DBL204S | DBL205S | DBL206S | DBL207S |
|---|---|---|---|---|---|---|---|---|---|
| Device marking code | | | DBL201S | DBL202S | DBL203S | DBL204S | DBL205S | DBL206S | DBL207S |
| 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=118℃ | $I_O$ | A | 2.0 | | | | | | |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃ | $I_{FSM}$ | A | 60 | | | | | | |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃ | | | 120 | | | | | | |
| Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode | $I^2t$ | $A^2s$ | 14.9 | | | | | | |
| 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 | DBL201S | DBL202S | DBL203S | DBL204S | DBL205S | DBL206S | DBL207S |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=1.0A | 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 | 19 | | | | | | |

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

| PARAMETER | SYMBOL | UNIT | DBL201S | DBL202S | DBL203S | DBL204S | DBL205S | DBL206S | DBL207S |
|---|---|---|---|---|---|---|---|---|---|
| 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 |
|---|---|---|---|---|---|---|
| DBL201S ~ DBL207S | B1 | Approximate 0.32 | 50 | 5000 | 20000 | TUBE |
| DBL201S ~ DBL207S | F1 | Approximate 0.32 | 1500 | 3000 | 21000 | REEL |

## ■ Characteristics (Typical)

FIG1:Io-Tc Curve

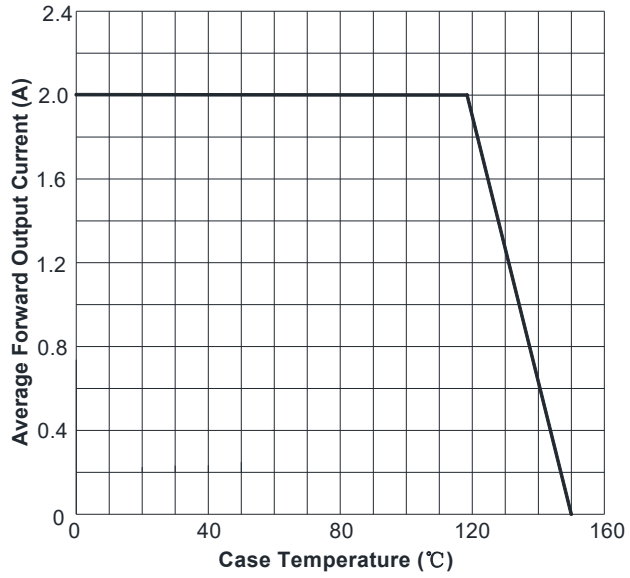



FIG2:Surge Forward Current Capability

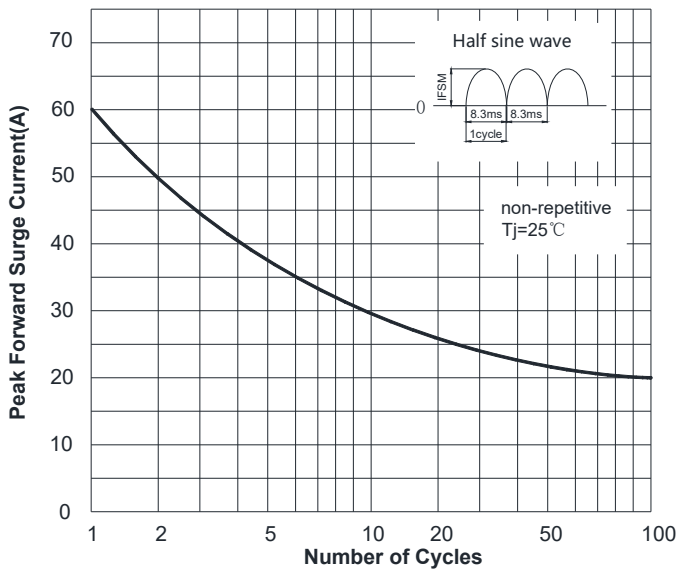



FIG3: Typical Forward Voltage

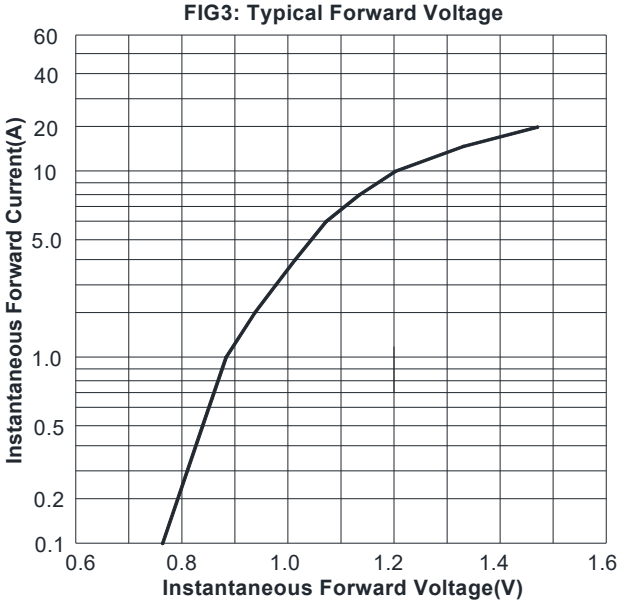
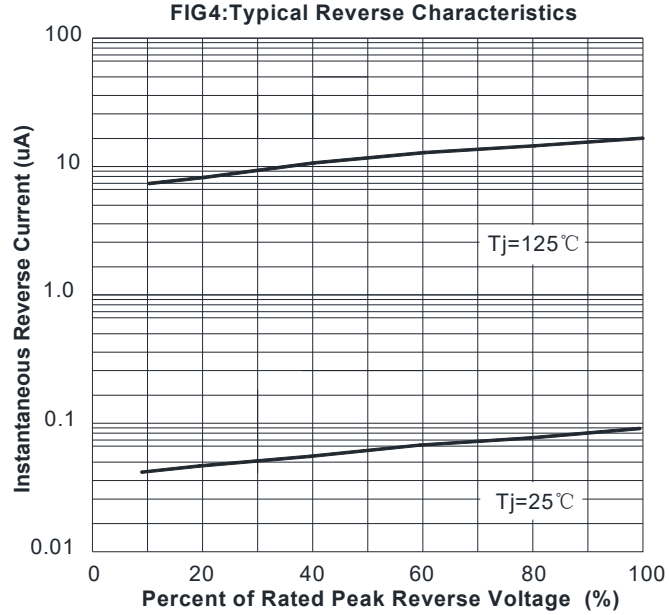
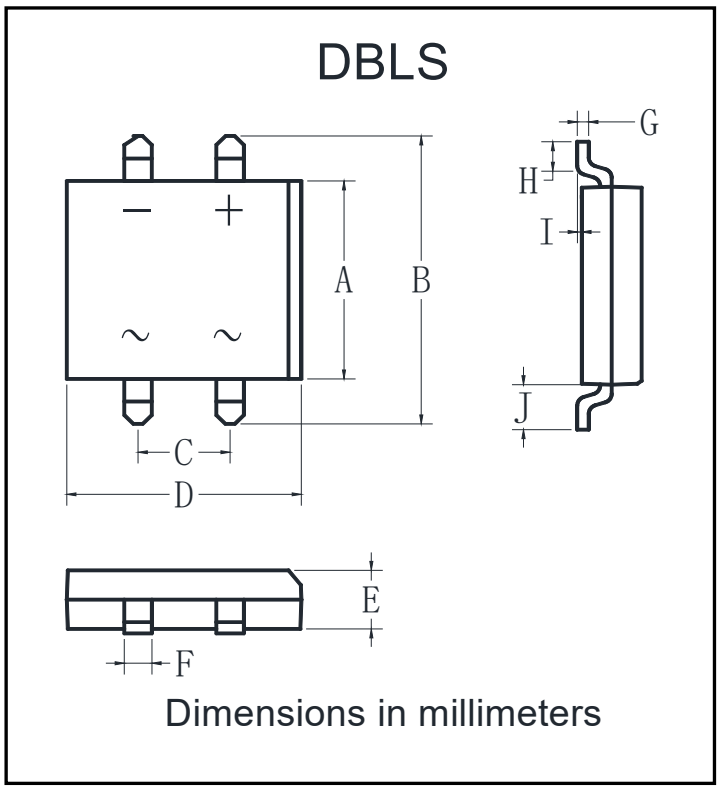



FIG4:Typical Reverse Characteristics

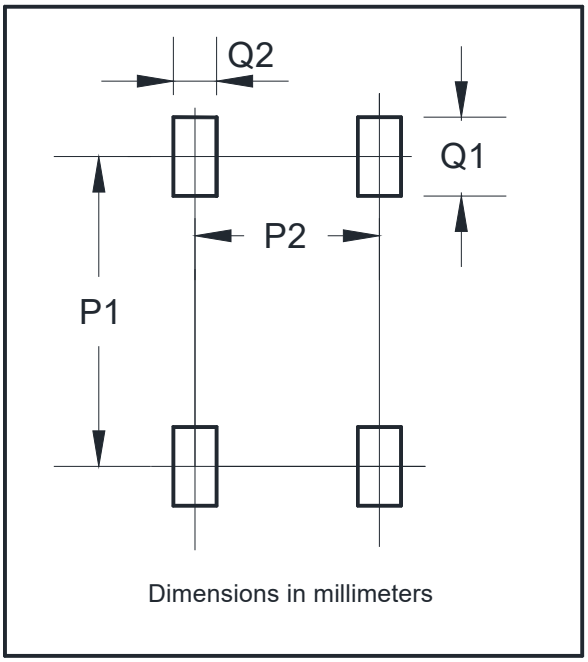


## ■ Outline Dimensions




| DBLS | | |
|---|---|---|
| Dim | Min | Max |
| A | 6.20 | 6.50 |
| B | 9.60 | 10.30 |
| C | 5.00 | 5.20 |
| D | 8.13 | 8.51 |
| E | 2.35 | 2.45 |
| F | 1.02 | 1.2 |
| G | 0.22 | 0.33 |
| H | 1.02 | 1.53 |
| I | 0 | 0.30 |
| J | 1.80 | 2.10 |

## ■ Suggested pad layout




| Dim | Min |
|---|---|
| P1 | 8.73 |
| P2 | 5.12 |
| Q1 | 2.22 |
| Q2 | 1.2 |

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