



MSB30D THRU MSB30M

Voltage Range - 200 to 1000 Volts Current - 3.0 Ampere

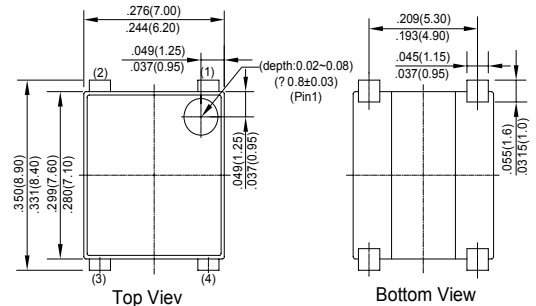
GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIERS

Features

- ◆ Glass Passivated Chip Junction
- ◆ Reverse Voltage - 100 to 1000 V
- ◆ Forward Current- 3 A
- ◆ High Surge Current Capability
- Designed for Surface Mount Application

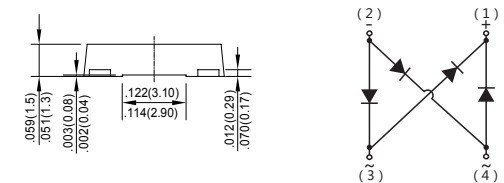
UMSB

ROHS
COMPLIANT



Mechanical Data

Case: JEDEC UMSB molded plastic body
 Terminals: Solderable per MIL-STD-750, Method 2026A
 Polarity: Polarity symbol marking on body
 Mounting Position: Any
 Weight: 0.00825 ounce, 0.234 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter | Symbols | MSB30D | MSB30G | MSB30J | MSB30K | MSB30M | Units |
|---|----------------|---------------|---------------|---------------|---------------|---------------|------------------|
| | | MDD MSB30D | MDD MSB30G | MDD MSB30J | MDD MSB30K | MDD MSB30M | |
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 3 | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) | I_{FSM} | 80 | | | | | A |
| Maximum Forward Voltage at 3.0 A | V_F | 1.1 | | | | | V |
| Maximum DC Reverse Current @ $T_a=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_a=125^\circ\text{C}$ | I_R | 5 100 | | | | | μA |
| Typical Junction Capacitance | C_j | 40 | | | | | pF |
| Operating and Storage Temperature Range | T_j, T_{stg} | -55 ~ +150 | | | | | $^\circ\text{C}$ |

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. P.C.B. mounted with 4×1.5"×1.5" (3.81×3.81 cm) copper pad areas.



Typical Characteristics

Fig.1 Average Rectified Output Current Derating Curve

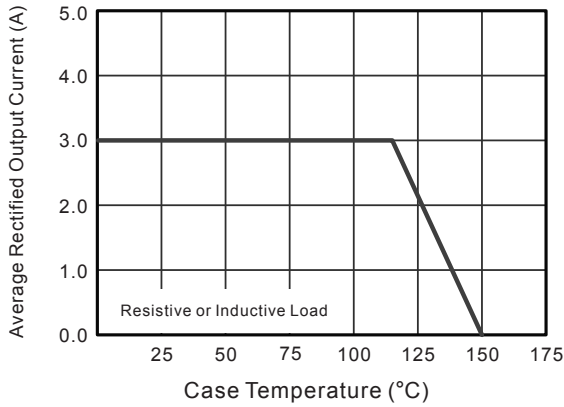


Fig.2 Typical Reverse Characteristics

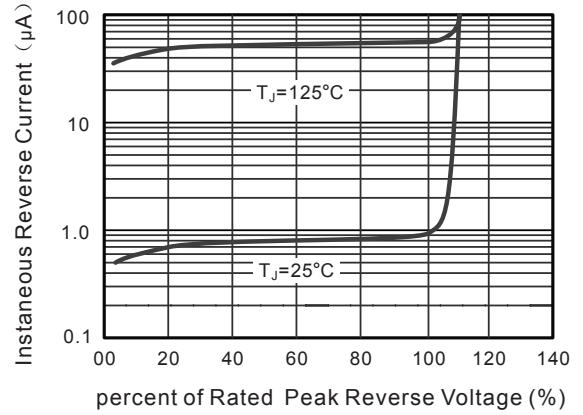


Fig.3 Typical Instantaneous Forward Characteristics

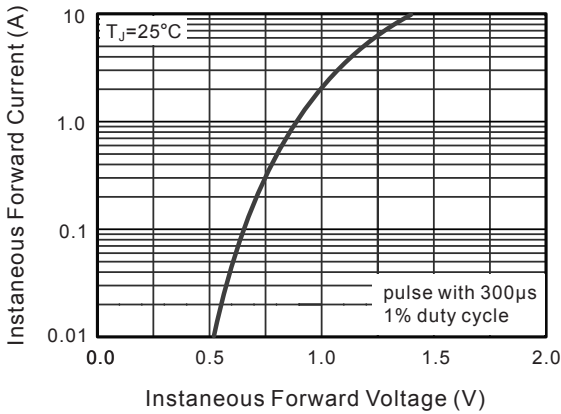


Fig.4 Typical Junction Capacitance

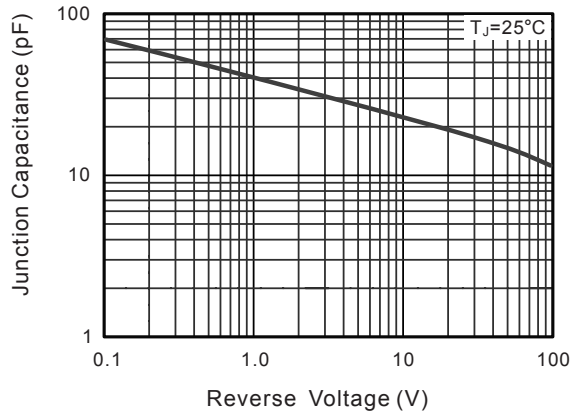
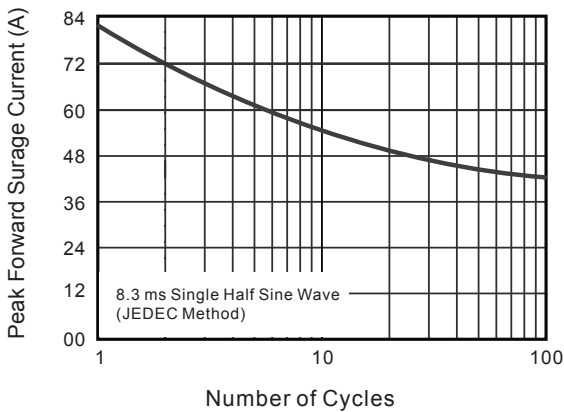


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.