



# MSB307H

## GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

**REVERSE VOLTAGE:** 1000 VOLTS

**FORWARD CURRENT:** 3 AMPERE

### FEATURES

- Glass Passivated Junction Chip
- Low Reverse Leakage
- High Forward Surge Current Capability
- Suffix "H" indicates Halogen-free parts, ex. MSB307H

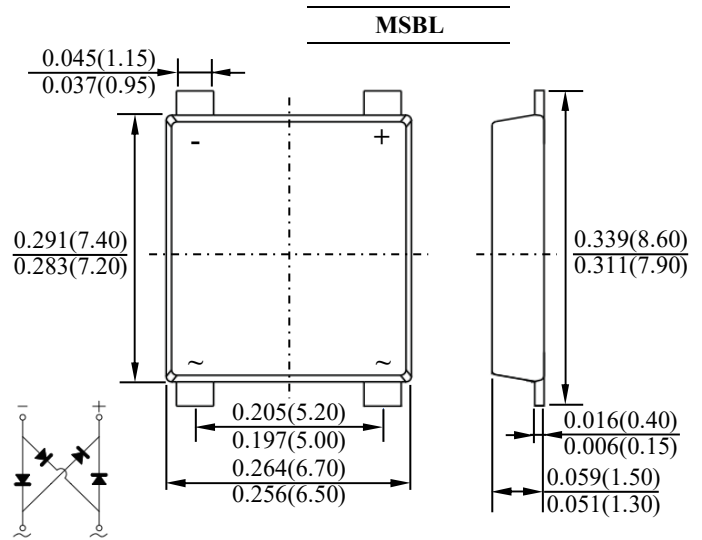
### MECHANICAL DATA

Case : Molded plastic, MSBL

Epoxy : UL 94V-0 rate flame retardant

Terminals : Leads solderable per MIL-STD-202,  
method 208 guaranteed

Mounting position : Any



Dimensions in inchs 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, derate current by 20%.

Parameter	Symbols	MSB307H	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	1000	Volts
Maximum Average Forward Rectified Current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	3.0	Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100	Amp
Maximum Forward Voltage at 1.5A DC and 25°C	$V_F$	1.0	Volts
Maximum Reverse Current at $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	$I_R$	5.0 200	uAmp
Typical Junction Capacitance (Note 1)	$C_J$	23	pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	55.0	°C/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150	°C

#### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81cm×3.81cm) copper pad.



# MSB307H

## GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

### RATINGS AND CHARACTERISTIC CURVES

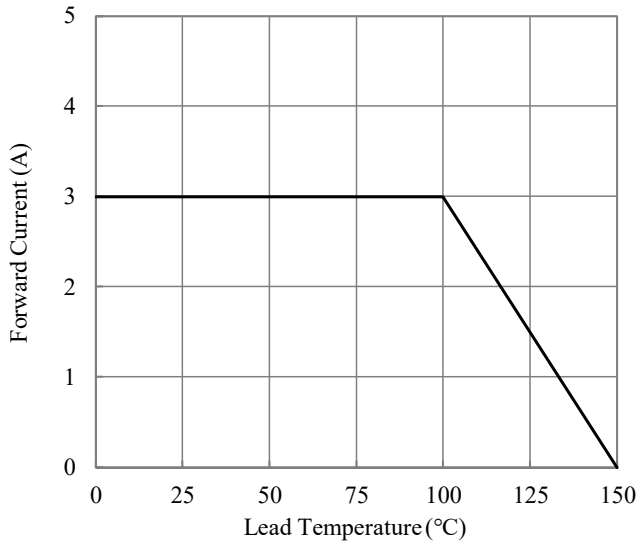


Fig. 1 Forward Current Derating Curve

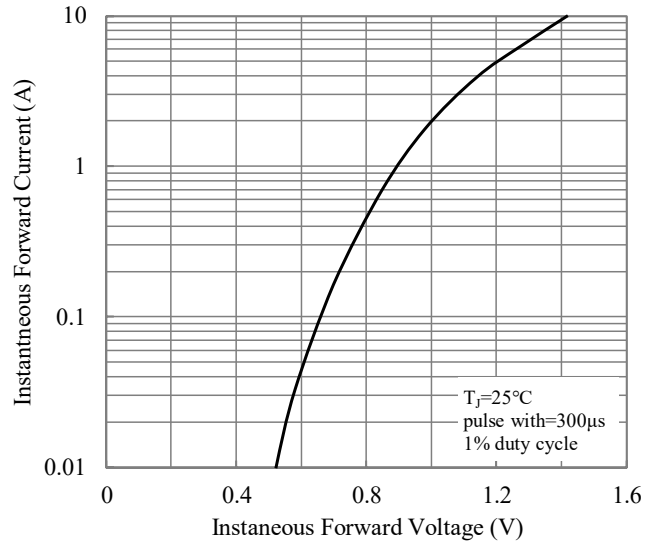


Fig. 2 Typical Instantaneous Forward Characteristics

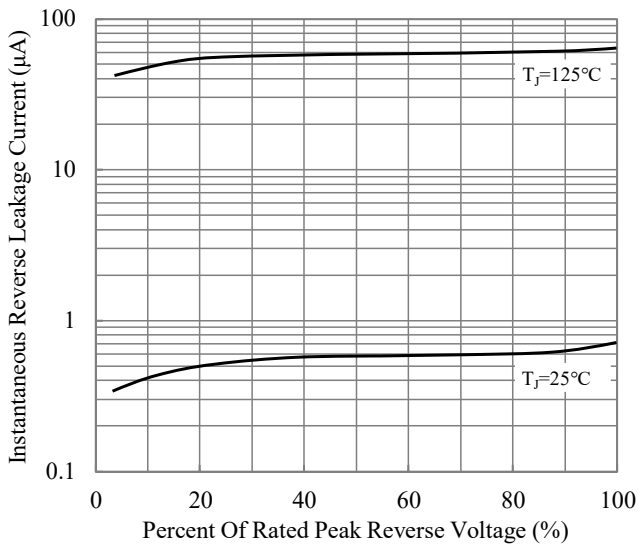


Fig. 3 Typical Reverse Leakage Characteristics

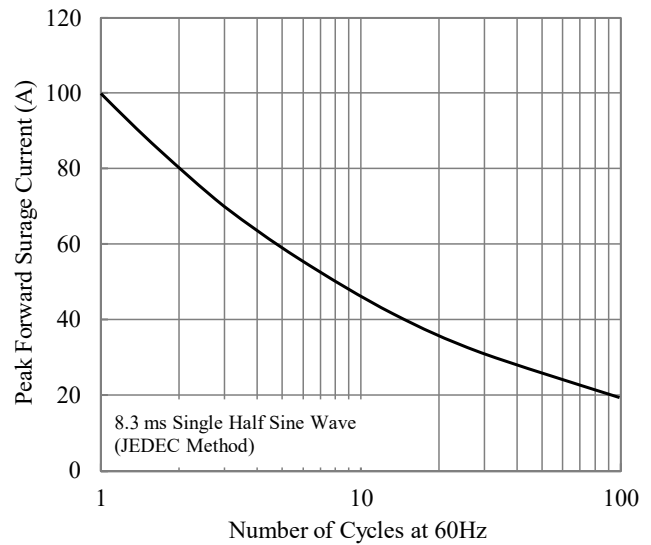


Fig. 4 Maximum Non-Repetitive Peak Forward Surge Current