

## Surface Mount Glass Passivated Rectifiers

Reverse Voltage - 50 to 1000Volts  
 Forward Current - 3.0 Amperes

### Features

- For surface mounted applications
- Low reverse leakage current
- Low forward voltage drop
- High surge capacity
- Meet UL flammability classification 94V-0

### Mechanical Data

- Case: JEDEC SMB molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

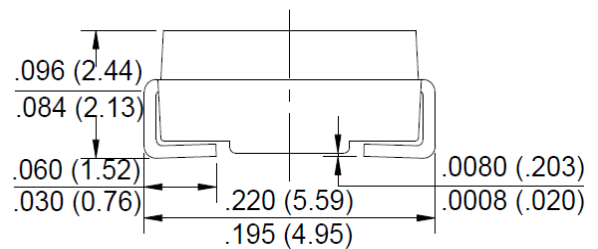
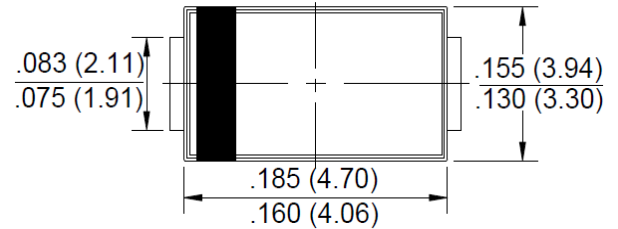
### Applications

- For use in low voltage, high frequency inverters, polarity protection applications

### SMB



RoHS  
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	S3KB	S3MB	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
Maximum Average Forward Rectified Current @ $T_L=75^\circ\text{C}$	$I_{(AV)}$	3.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	100							A
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	41.5							$\text{A}^2\text{s}$
Peak Forward Voltage at 3.0A DC (Note1)	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0 250							$\mu\text{A}$
Typical Junction Capacitance (Note 2)	$C_J$	40							pF
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	10							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

Notes: 1. 300uS pulse width, 2%duty cycle.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. The typical data above is for reference only .

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Fig. 1 - Forward Current Derating Curve

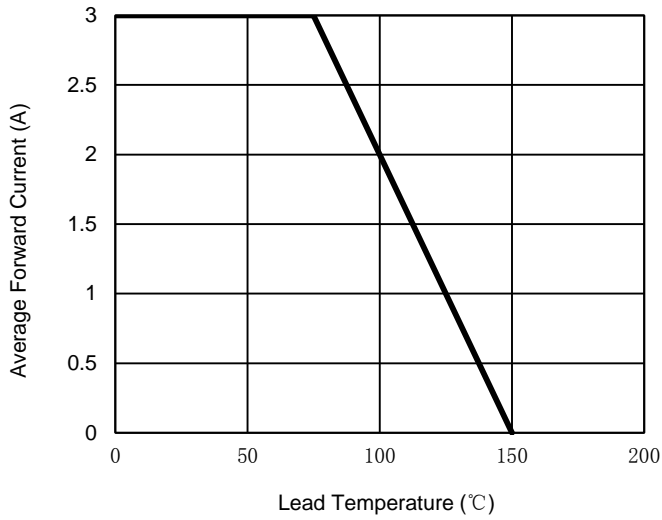


Fig. 2 - Maximum Non-Repetitive Surge Current

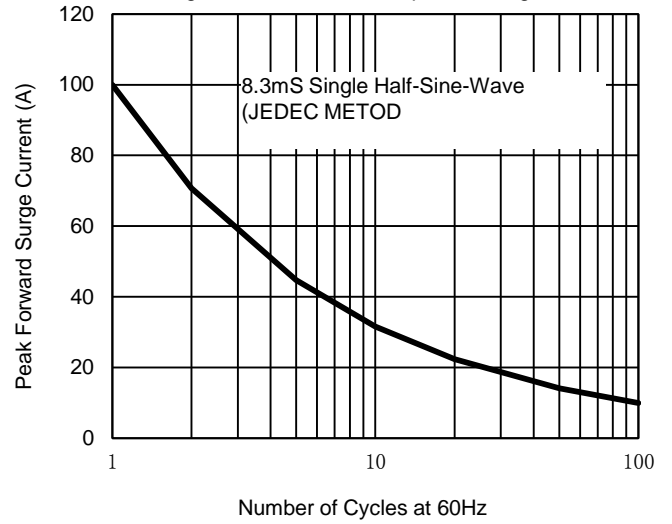


Fig. 3 - Typical Reverse Characteristics

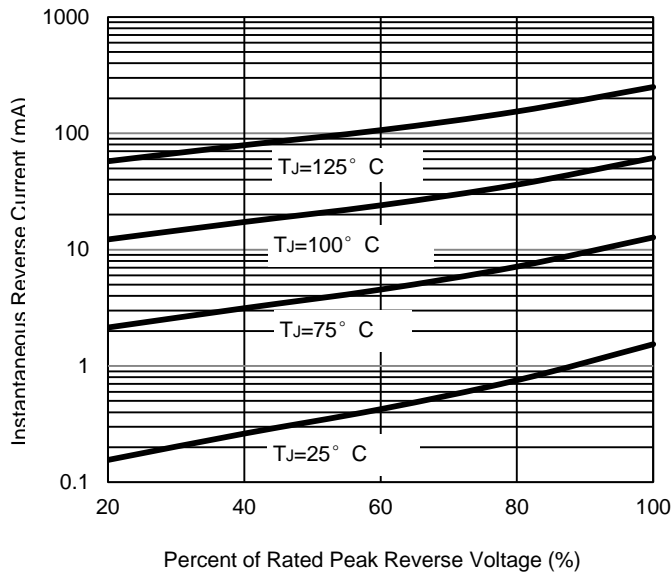
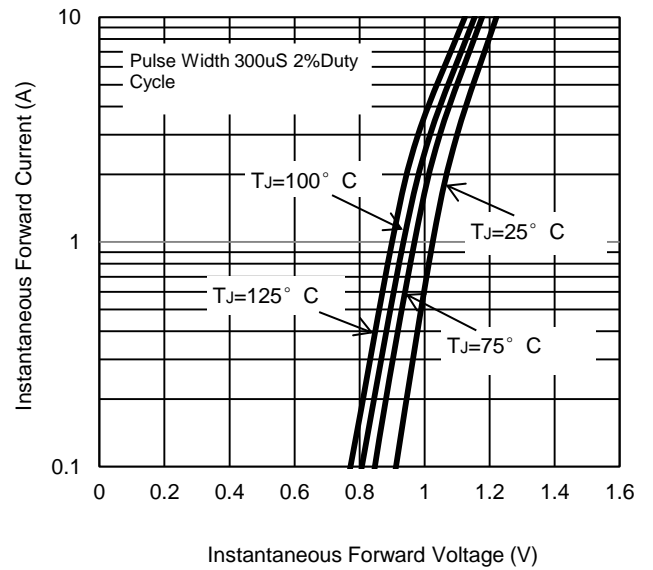


Fig. 4 - Typical Forward Characteristics



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