

## Surface Mount Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts  
Forward Current - 1.0 Amperes

### Features

- Glass passivated chip
- Ideal for automatic placement
- High surge forward current capability
- Reliable low cost construction utilizing molded plastic technique
- Lead tin plated copper
- AEC-Q101 qualified

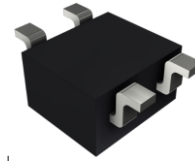
### Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

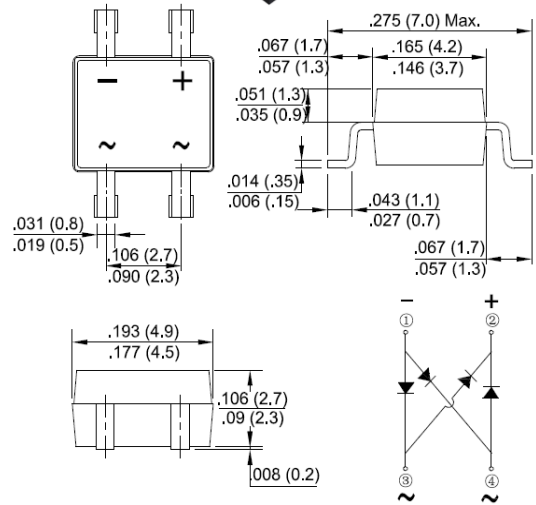
### Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

MBS



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	B105S	B11S	B12S	B14S	B16S	B18S	B110S	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =40 °C (Note1)	I <sub>(AV)</sub>	1							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	35							A
I <sup>2</sup> t Rating for Fusing (t<8.3mS)	I <sup>2</sup> t	5.08							A <sup>2</sup> s
Peak Forward Voltage per Diode at 1.0A DC	V <sub>F</sub>	1.1							A <sup>2</sup> s
Maximum DC Reverse Current at Rated @T <sub>J</sub> =25°C	I <sub>R</sub>	5.0							µA
DC Blocking Voltage per Diode @T <sub>J</sub> =125°C		500							
Typical Junction Capacitance per Diode (Note2)	C <sub>J</sub>	15							pF
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	75							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

Notes: 1.Mounted on P.C. board.

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

3.The typical data above is for reference only

Fig. 1 - Forward Current Derating Curve

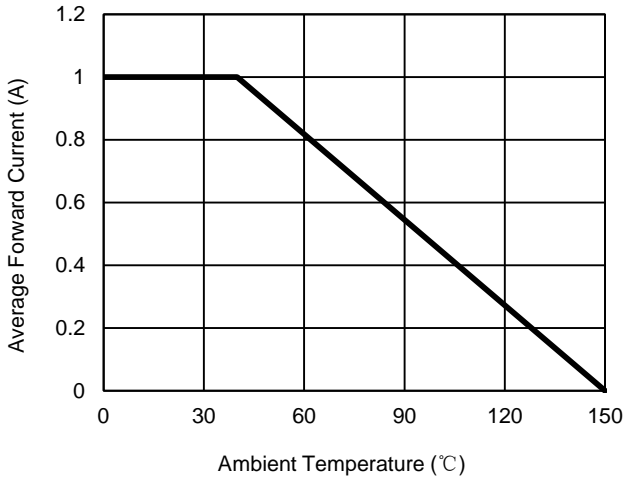


Fig. 2 - Maximum Non-Repetitive Surge Current

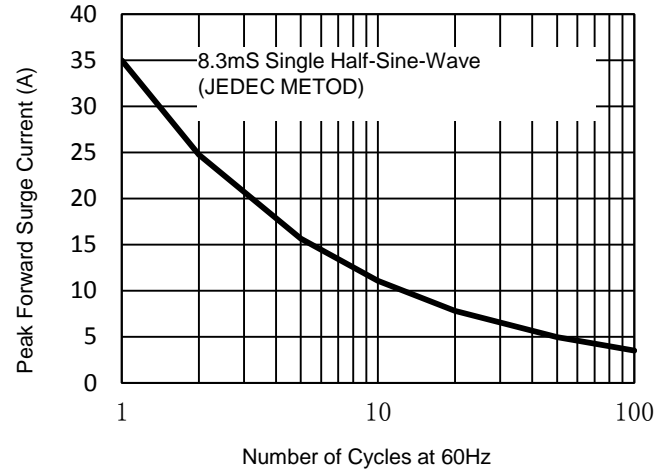


Fig. 3 - Typical Reverse Characteristics

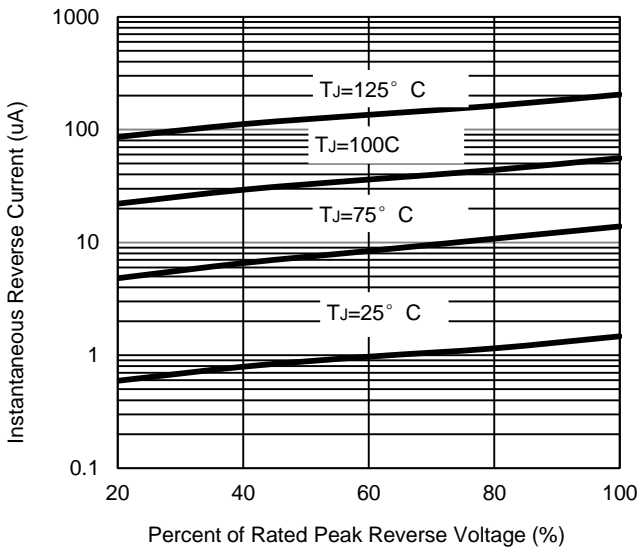


Fig. 4 - Typical Forward Characteristics

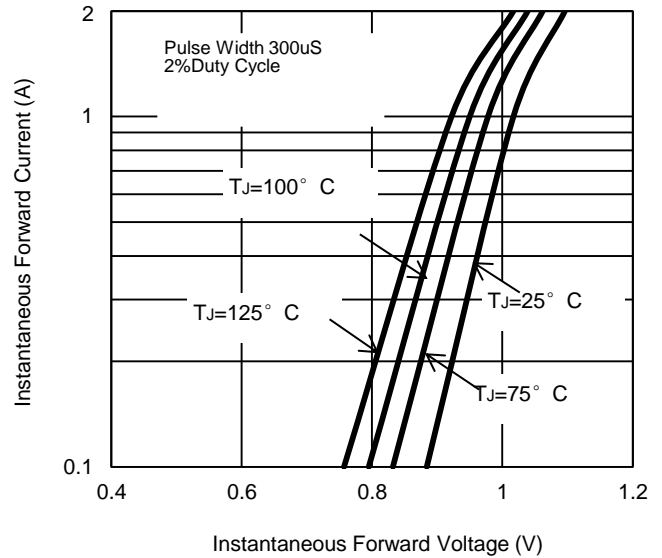
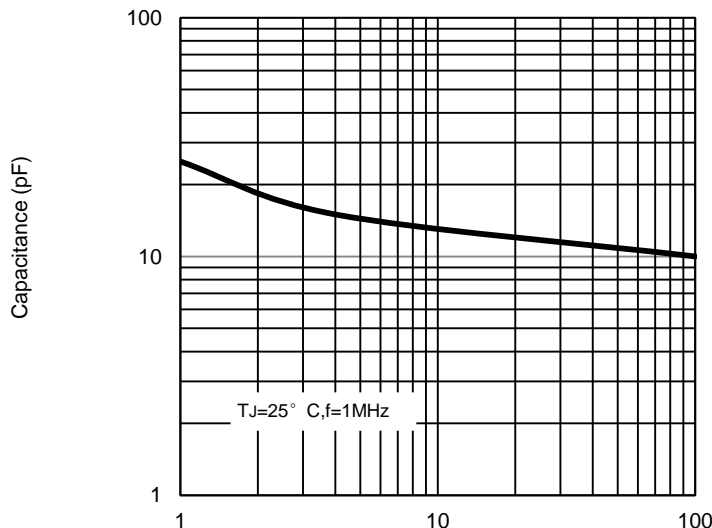


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.

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