



Surface Mount Glass Passivated Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

Features

- Compact, Thin Profile Package Design
- Ideal for SMT manufacturing
- Reliable robust construction

Mechanical Data

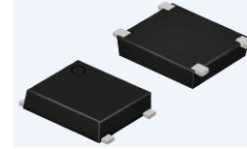
- Polarity: Symbol marked on body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

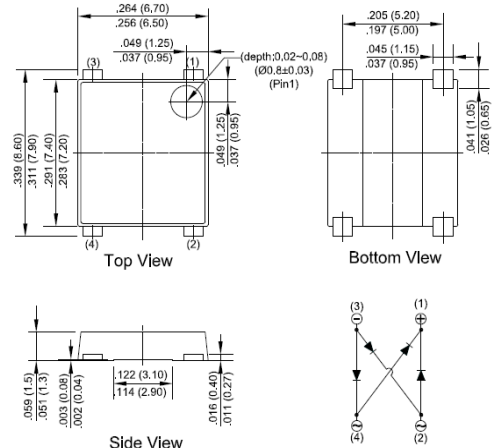
Applications

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

MSBL



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	MSB	MSB	MSB	MSB	MSB	MSB	MSB	Unit
		30A	30B	30D	30G	30J	30K	30M	
Maximum Repetitive Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @Tc=120 °C (Note1)	I(AV)	3.0							A
Peak Forward Surge Current @ 8.3ms	IFSM	100							A
Single Half Sine-Wave @ 1.0ms		200							A
I ² t Rating for Fusing (1ms < t < 8.3ms)	I ² t	41.5							A ² s
Peak Forward Voltage Per Diode at 1.5A DC	VF	1.02							V
Peak Forward Voltage Per Diode at 3.0A DC	VF	1.1							V
Maximum DC Reverse Current at Rated @Tj=25°C	IR	5							µA
DC Blocking Voltage per Diode @Tj=125°C		500							
Typical Junction Capacitance per Diode (Note1)	CJ	35							pF
Typical Thermal Resistance to Ambient (Note2)	RθJA	25							°C/W
Typical Thermal Resistance to case (Note2)	RθJC	8							
Typical Thermal Resistance to lead (Note2)	RθJL	15							
Operating Junction Temperature Range	TJ	-55 to +150							°C
Storage Temperature Range	TSTG	-55 to +150							°C

Notes 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft² 20x20 mm copper pad per pin.

3. The typical data above is for reference only

MSB30*-13-92-00

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Fig. 1 - Forward Current Derating Curve

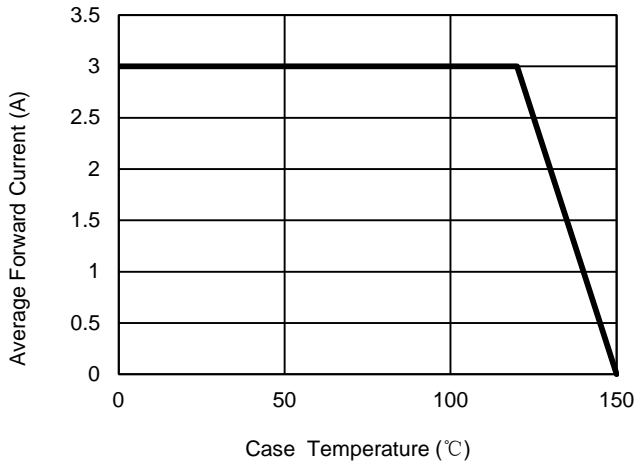


Fig. 2 - Maximum Non-Repetitive Surge Current

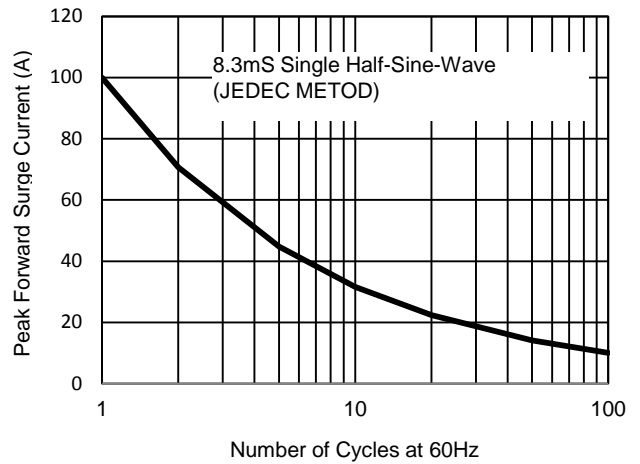


Fig. 3 - Typical Reverse Characteristics

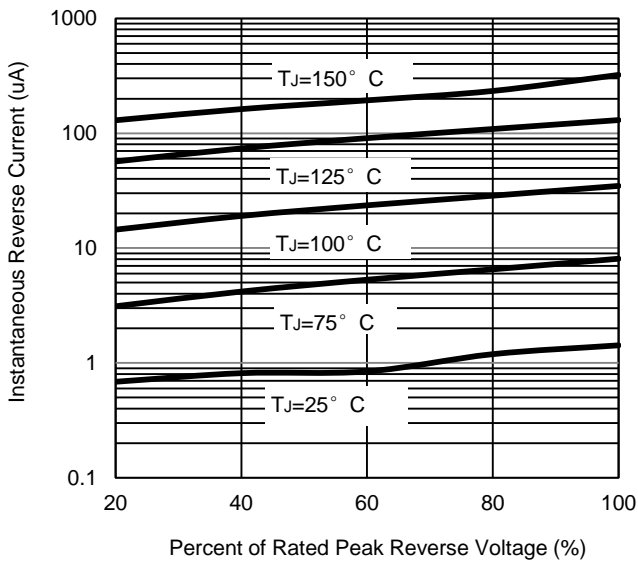


Fig. 4 - Typical Forward Characteristics

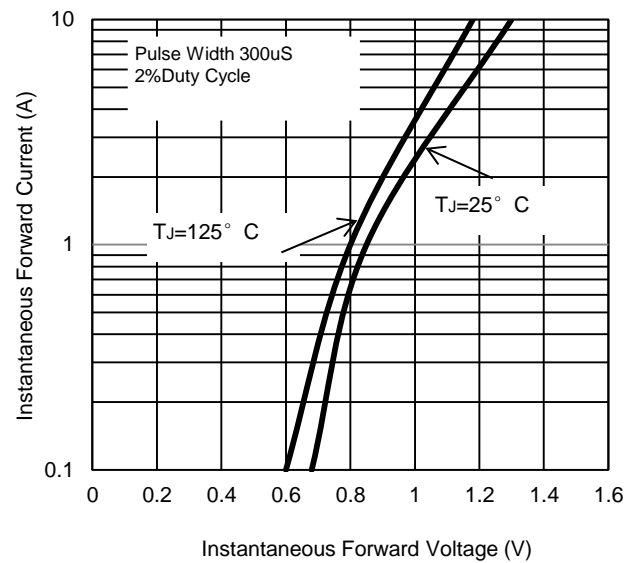
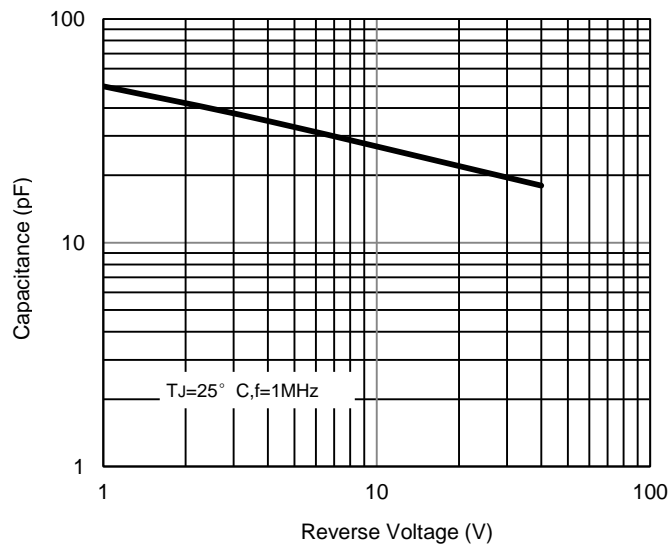


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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