



MSB30A thru MSB30M

GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIERS
REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 3 Amperes

MSBL

GENERAL DESCRIPTION

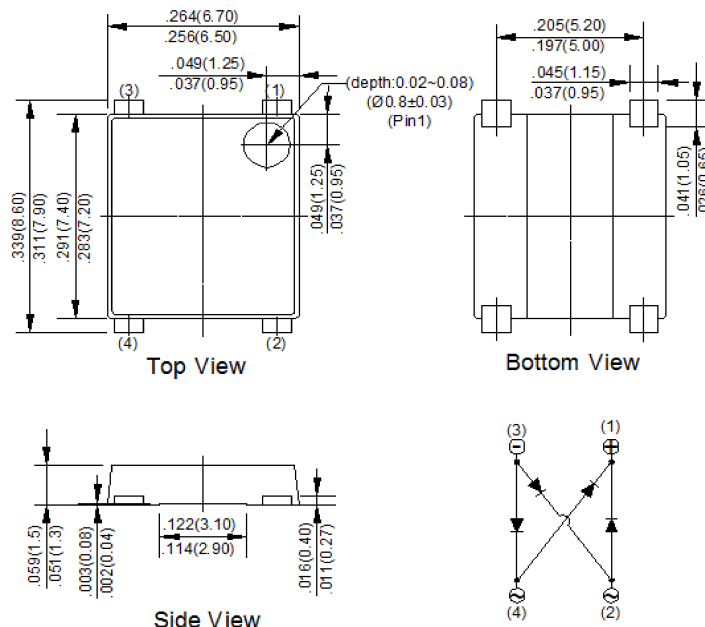
Suitable for AC-to-DC bridge full wave rectification for SMPS, LED lighting, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

FEATURES

- Compact, thin profile package design
- Ideal for SMT manufacturing
- Reliable robust construction

MECHANICAL DATA

- Molding compound meets UL 94 V-0 flammability rating, Halogen-free, RoHS-compliant, and commercial grade
- Polarity indicator: As marked on body



Dimensions in inches and (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	MSB30A	MSB30B	MSB30D	MSB30G	MSB30J	MSB30K	MSB30M	UNIT
Maximum Recurrent 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 _C =120°C	I _(AV)	2							A
Peak Forward Surge Current @ 8.3ms	I _{FSM}	75							A
Maximum Forward Voltage @ T _J = 25°C @ 1.0A DC @ 2.0A DC	V _F	1 1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =125°C	I _R	5 500							µA
Typical junction Capacitance per element (Note 1)	C _J	35							pF
I ² t Rating for fusing (1ms < t < 8.3ms)	I ² t	23.3							I ² t
Typical Thermal Capacitance (Note 2)	R _{θJC}	8							°C/W
	R _{θJL}	15							
	R _{θJA}	25							
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

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

2. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on

15 mm*12 mm*1.6 mm AL pad attach 195 mm*110 mm*10 mm steel plate

3.The typical data above is for reference only(典型值仅供参考).

RATING AND CHARACTERISTIC CURVES

MSB30A thru MSB30M

FIG. 1 – FORWARD CURRENT DERATING CURVE

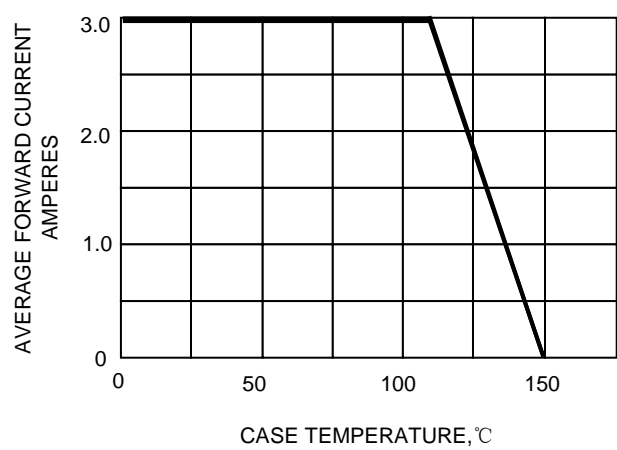


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

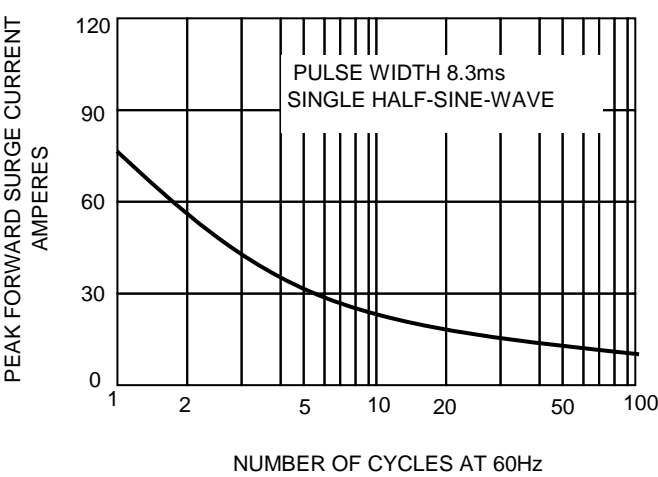


FIG.3-TYPICAL FORWARD CHARACTERISTICS

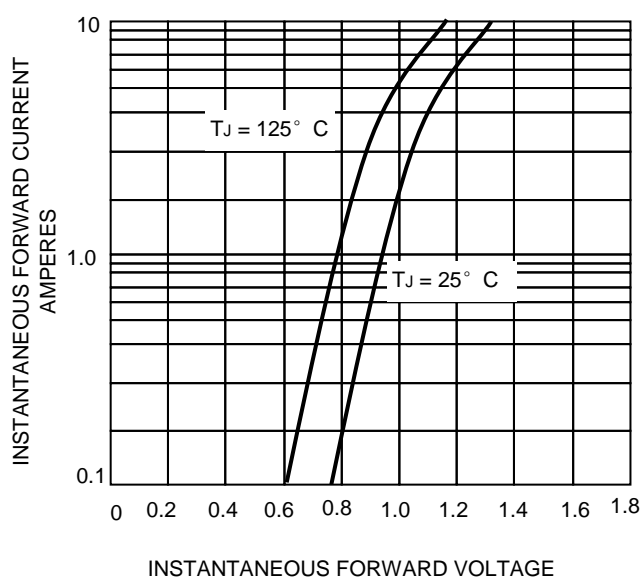


FIG.4 – TYPICAL JUNCTION CAPACITANCE

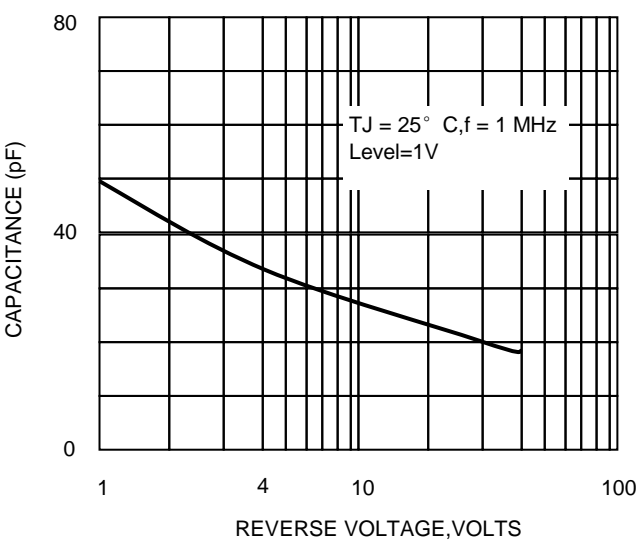


FIG.5- TYPICAL REVERSE CHARACTERISTICS

