GLASS PASSIVATED
SURFACE MOUNT BRIDGE RECTIFIERS

Description:

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

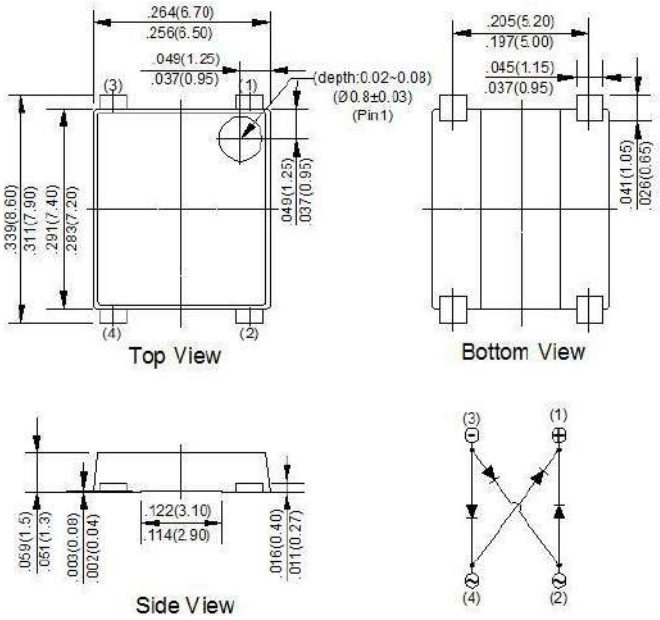
Features:

- Compact, thin profile package design
- Ideal for SMT manufacturing
- Reliable robust construction
- UL recognized file#E364304

Mechanical Data:

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

MSBL



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

CHARACTERISTICS	SYMBOL	MSB400	MSB401	MSB402	MSB404	MSB406	MSB408	MSB410	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℃	$I_{(AV)}$	4.0							A
Peak Forward Surge Current @ 8.3ms single half sine-wave @ 1.0ms	I_{FSM}	125 200							A
Maximum Forward Voltage @ TJ = 25℃ @ 2.0A DC @ 4.0A DC	V_F	1.0 1.1							V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=125℃	I_R	5 500							μA
Typical junction Capacitance per element (Note 1)	C_J	35							pF
I^2t Rating for fusing (1ms < t < 8.3ms)	I^2t	63.3							I^2t
Typical Thermal Capacitance (Note 2)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	8 15 25							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

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

RATING AND CHARACTERISTIC CURVES

FIG. 1 – FORWARD CURRENT DERATING CURVE

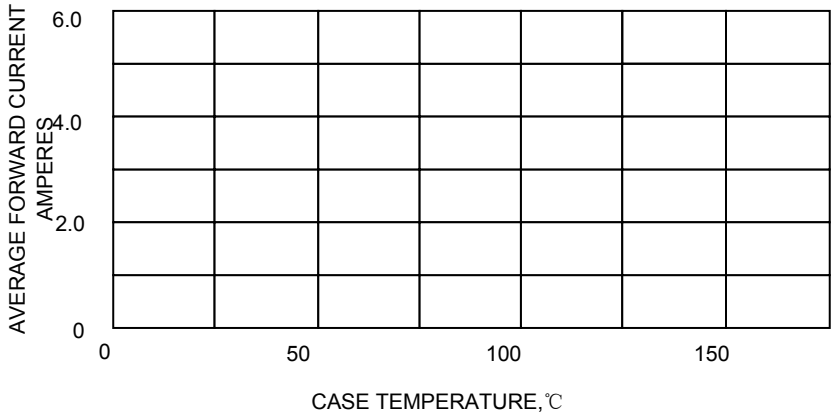


FIG. 2 – MAXIMUM NON-

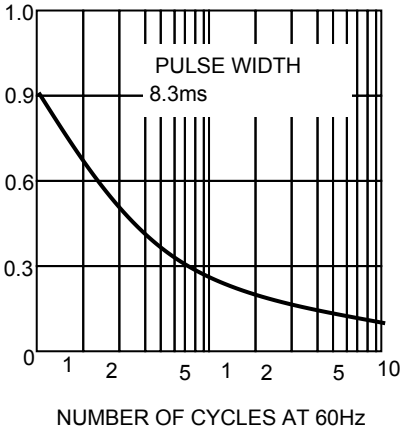


FIG.3-TYPICAL FORWARD

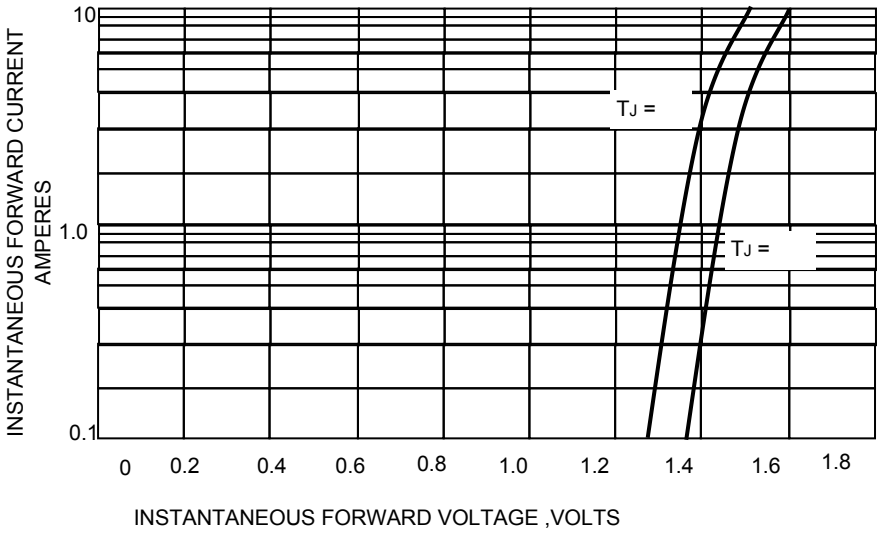


FIG.4 – TYPICAL JUNCTION CAPACITANCE

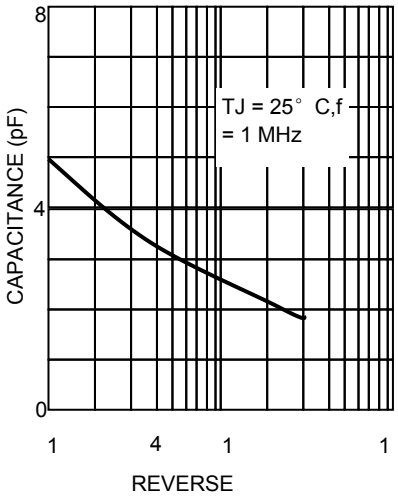
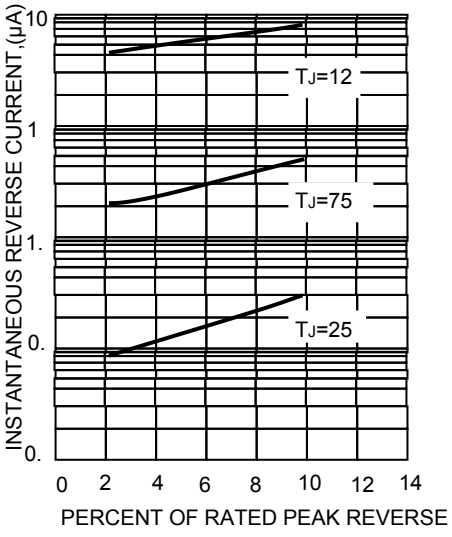


FIG.5- TYPICAL REVERSE



The cruve graph is for reference only, can't be the basis for judgment