

MSB Plastic-Encapsulate Bridge Rectifier

Low VF Bridge Rectifier

Features:

- $I_{F(AV)}$ 6A
- V_{RRM} 600 V
- High surge current capability
- Glass passivated chip

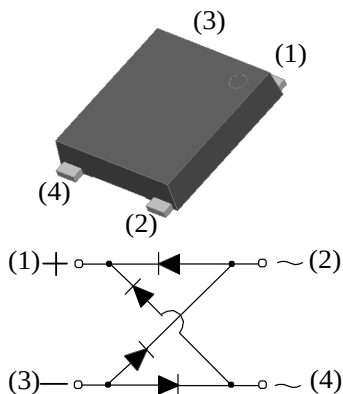
Applications:

- General purpose 1 phase Bridge rectifier applications

Marking

- MSB606L

MSB



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions		MSB606L
Repetitive Peak Reverse Voltage	V_{RRM}	V			600
Maximum RMS Voltage	V_{RMS}	V			420
Maximum DC Blocking Voltage	V_{DC}	V			600
Average Rectified Output Current	I_O	A	60Hz sine wave, R-load, $T_a=100^{\circ}\text{C}$	On alumina substrate	6.0
Surge(Non-repetitive)Forward Current	I_{FSM}	A	8.3ms sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$		180
Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^{\circ}\text{C}$, Rating of per diode		135
Operation Junction and Storage Temperature Range	T_J, T_{stg}	$^{\circ}\text{C}$			-55 ~ +150

Electrical Characteristics ($T=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		Max
Maximum Peak Forward Voltage	V_{FM}	V	$I_{FM}=6.0\text{A}$, Pulse measurement, Rating of per diode		0.95
Maximum Reverse Recovery Time	T_{RR}	ns	Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$		5000
Maximum Peak Reverse Current	I_{RRM1}	μA	$V_{RM}=V_{RRM}$, Pulse measurement, Rating of per diode	$T_A=25^{\circ}\text{C}$	5.0
	I_{RRM2}	μA		$T_A=125^{\circ}\text{C}$	500
Thermal Resistance	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	Between junction and ambient, On alumina substrate		55
	$R_{\theta J-L}$		Between junction and lead		15
	$R_{\theta J-C}$		Between junction and case		10

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

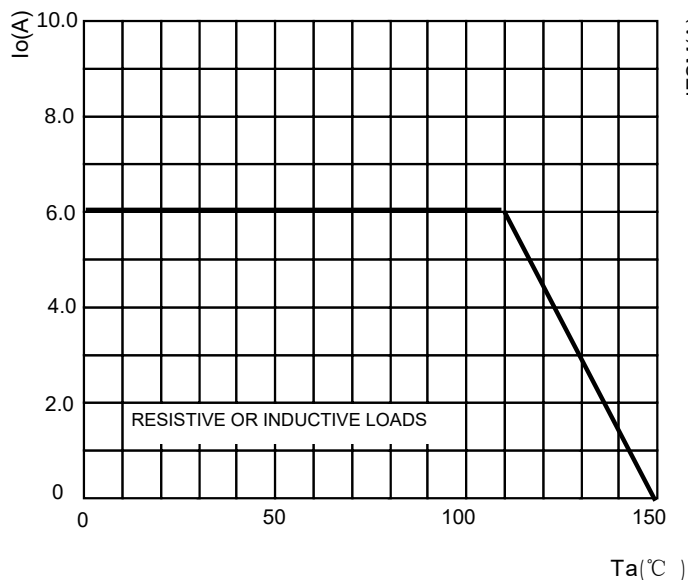


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

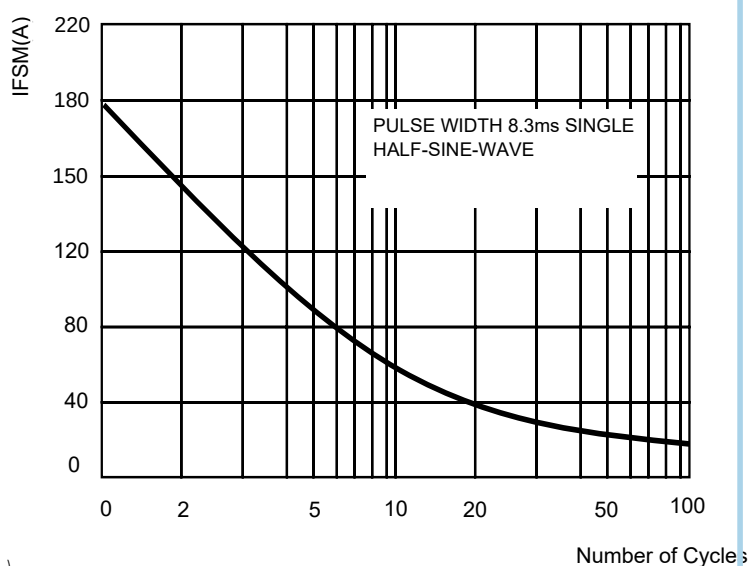


FIG.3: TYPICAL FORWARD CHARACTERISTICS

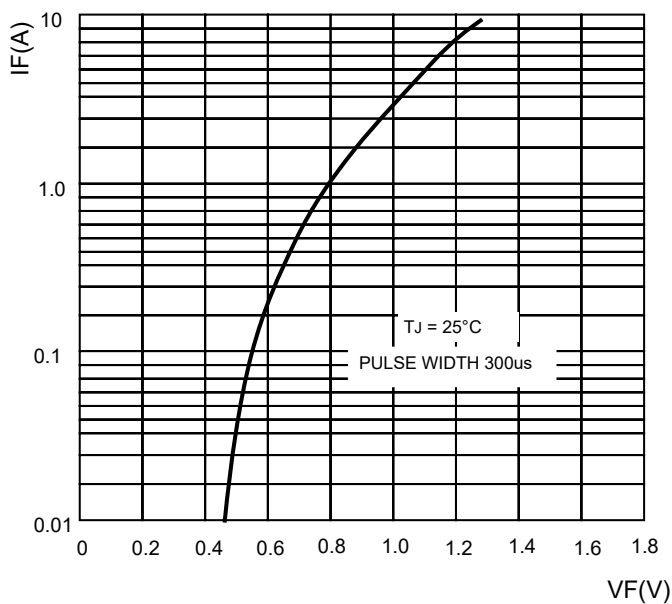
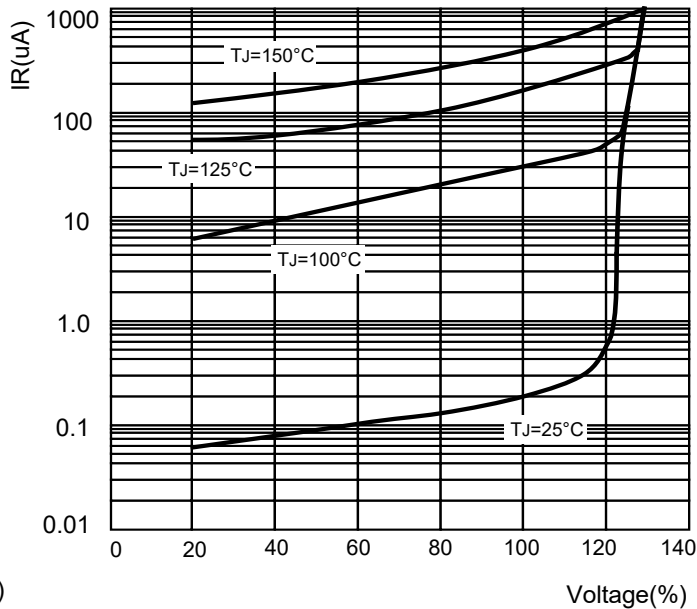
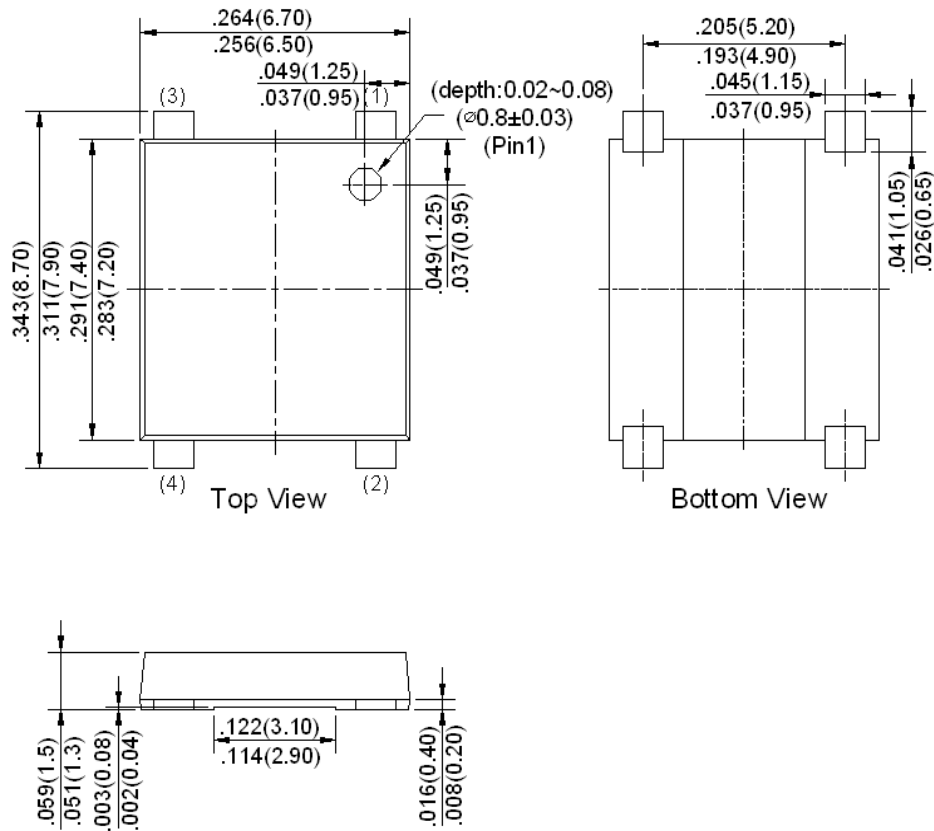


FIG.4: TYPICAL REVERSE CHARACTERISTICS

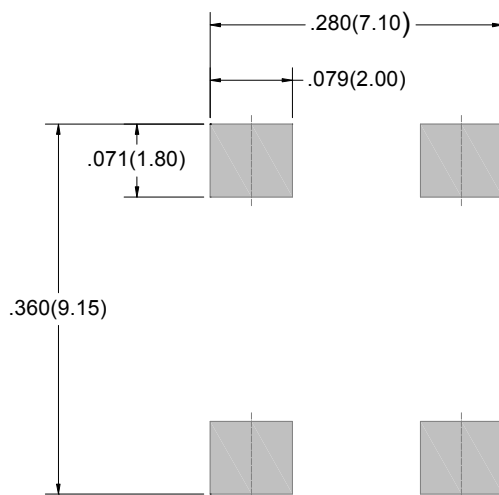


MSB Package Outline Dimensions



Dimensions in inches and (millimeters)

MSB Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.