MEI

Lead Free RoHS Compliant

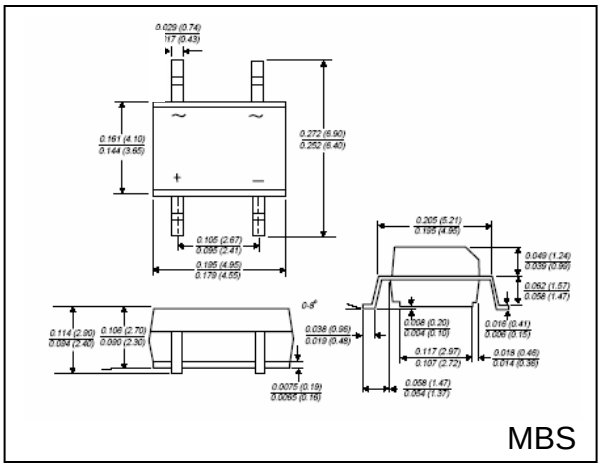
SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

MD2S THRU MD10S

VOLTAGE RANGE **50 to 1000 Volts**
CURRENT **0.5 Ampere**

FEATURES

- UL recognized
- High forward surge current capability
- Glass passivated chip junction
- High temperature soldering guaranteed: 260^{O}C / 10 seconds



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant/
- Terminal: Lead solderable per MIL-STD-750 method 2026
- Polarity: Polarity symbols marked on case
- Mounting: any
- Weight: 0.0078 ounce, 0.22 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

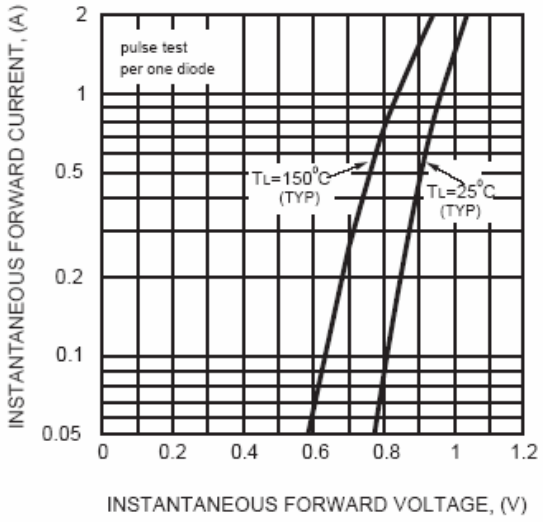
	SYMBOLS	MB2S	MB4S	MB6S	MB8S	MB10S	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, T_A = 30 ^{O}C On Glass–epoxy PCB (Note 1) On Aluminum substrate (Note 2)	$I_{(AV)}$	0.5 0.8					Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	30					Amps
Rating for Fusing (t<8.3mS)	I^2t	5					A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element0.4A	V_F	1.00					Volts
Maximum DC Reverse Current at Rated T_A = 25 ^{O}C DC Blocking Voltage per element T_A = 125 ^{O}C	I_R	5.0 100					µA
Typical Junction Capacitance Per leg (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	13					pF
Typical Thermal Resistance (Note 1)	$R_{\theta Ja}$	85					^{O}C/W
Operating Junction Temperature Range	T_J	(-55 to +150)					^{O}C
Storage Temperature Range	T_{STG}	(-55 to +150)					^{O}C

Notes:

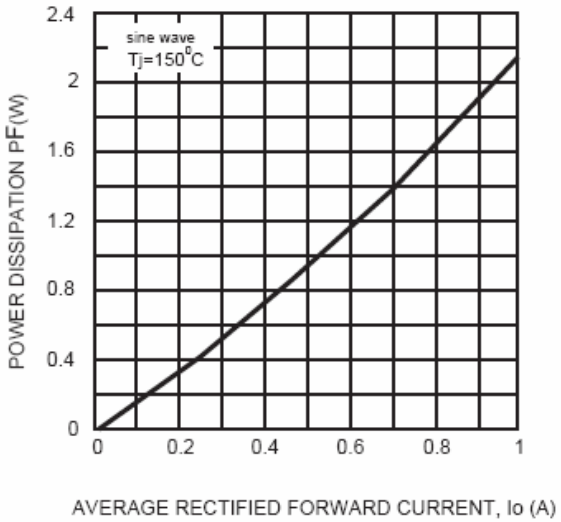
1. On glass epoxy PCB mounted on 0.05" x 0.05" (1.3mm x 1.3mm) copper pads
2. Ohn aluminum substrage PCB with an area of 0.8" x 0.8" x 0.25" (20mm x 20mm x 6.4mm) mounted on 0.05" x 0.05" (1.3mm x 1.3mm) solder pad

RATINGS AND CHARACTERISTIC CURVES MBS2S THRU MBS10S

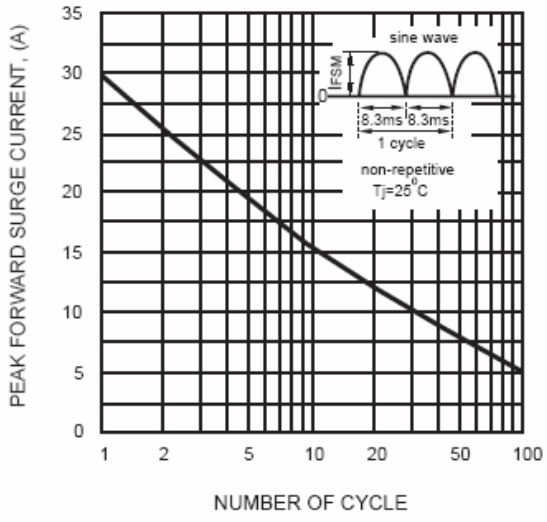
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



POWER DISSIPATION



SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE