

SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIER

MB2S THRU MB10S

VOLTAGE RANGE
CURRENT

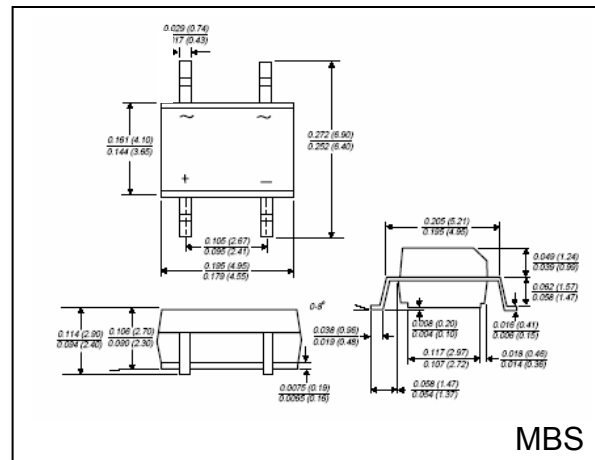
50 to 1000 Volts
0.5 Ampere

FEATURES

- UL recognized
- High forward surge current capability
- Glass passivated chip junction
- High temperature soldering guaranteed:
260°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°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, $T_A = 30^\circ\text{C}$ On Glass-epoxy PCB (Note 1)	$I_{(AV)}$	0.5					Amps
On Aluminum substrate (Note 2)		0.8					
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	30					Amps
Rating for Fusing ($t < 8.3\text{mS}$)	I^2t	5					A^2s
Maximum Instantaneous Forward Voltage drop per Bridge element 0.4A	V_F	1.00					Volts
Maximum DC Reverse Current at Rated $T_A = 25^\circ\text{C}$	I_R	5.0					μA
DC Blocking Voltage per element $T_A = 125^\circ\text{C}$		100					
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_{0Ja}	85					$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	(-55 to +150)					$^\circ\text{C}$
Storage Temperature Range	T_{STG}	(-55 to +150)					$^\circ\text{C}$

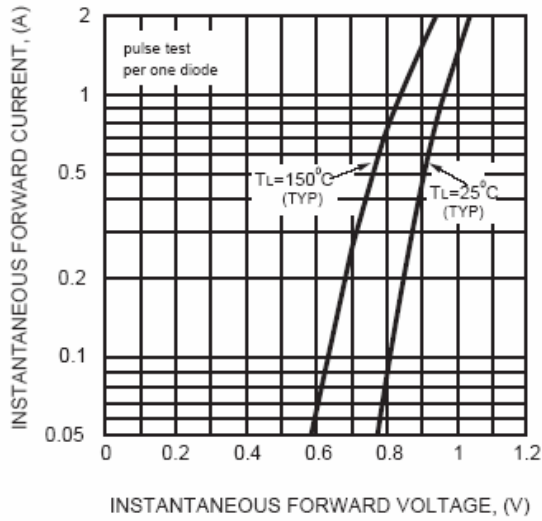
Notes:

1. On glass epoxy PCB mounted on 0.05" x 0.05" (1.3mm x 1.3mm) copper pads
2. On aluminum substrate 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

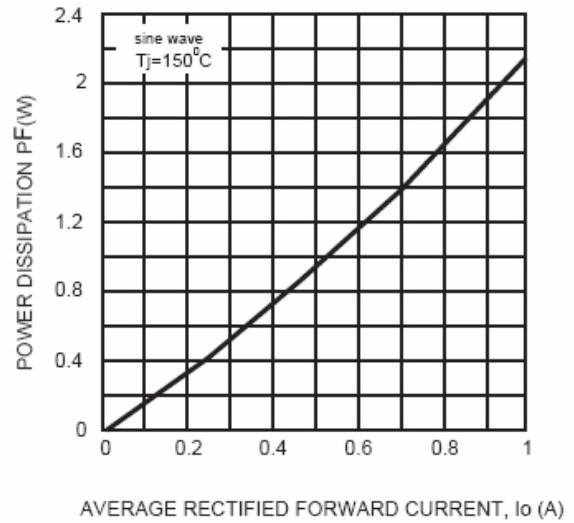


RATINGS AND CHARACTERISTIC CURVES MB2S THRU MB10S

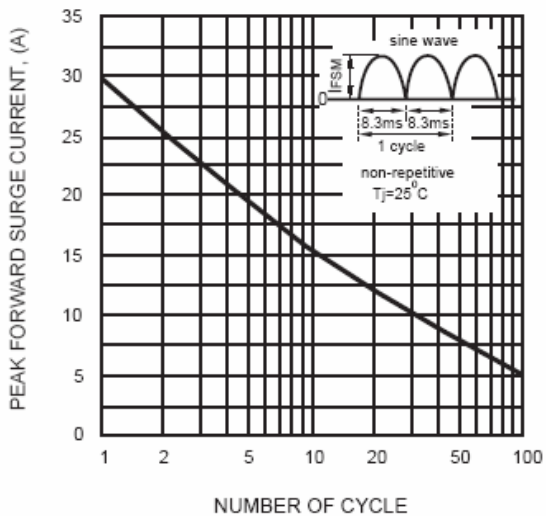
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



POWER DISSIPATION



SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE

