

**SINGLE-PHASE GLASS PASSIVATED
MINI SUPER FAST SURFACE MOUNT BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 200 Volts CURRENT 0.5 Ampere

FEATURES

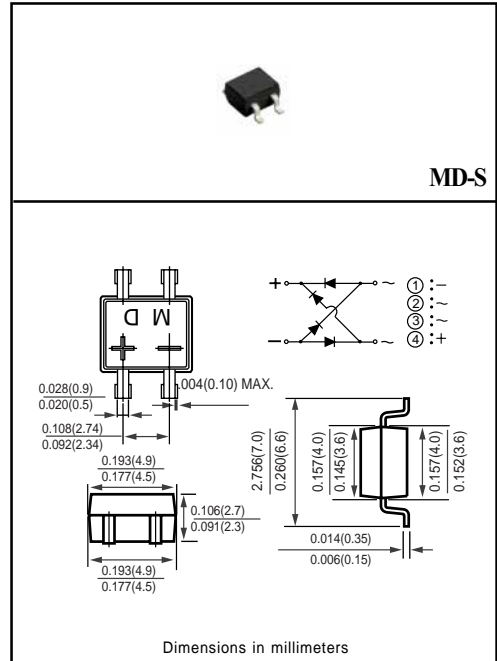
- * Surge overload rating - 30 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.5 gram

MECHANICAL DATA

- * Epoxy : Device has UL flammability classification 94V-0

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	EMD1S	EMD2S	EMD3S	EMD4S	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	105	140	Volts
Maximum DC Blocking Voltage	VDC	50	100	150	200	Volts
Maximum Average Forward Output Rectified Current at TA = 30°C - on glass-epoxy P.C.B. (NOTE 1) - on aluminum substrate (NOTE 2)	IO			0.5 0.8		Amp
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM		20			Amps
Typical Junction Capacitance (Note 5)	CJ		15			pF
Operating and Storage Temperature Range	TJ,TSTG		-55 to + 150			°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	EMD1S	EMD2S	EMD3S	EMD4S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 0.5A DC	VF		1.05			Volts
Maximum Reverse Current at rated @ TA = 25°C	IR		10			uAmps
DC Blocking Voltage per element @ TA = 125°C			0.5			mAmps
Maximum Reverse Recovery Time (Note 4)	trr		50			nSec

NOTE: 1. On glass-epoxy P.C.B. mounted on 0.05 X 0.05" (1.3 X 1.3mm) pads.

2. On aluminum substrate P.C.B. with an area of 0.8 X 0.8 X 0.25" (20 X 20 X 6.4mm) mounted on 0.05 X 0.05" (1.27 X 1.27mm) solder pad.

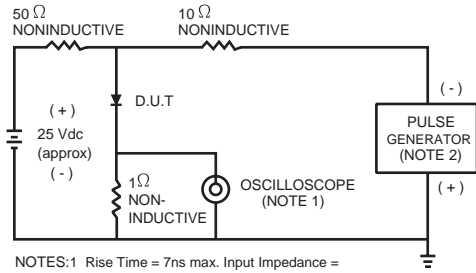
3. Suffix "-S" Surface Mount for Mini Dip Bridge.

4. Test Conditions: IF=0.5A, IR=-1.0A, IRR=-0.25A.

5. Measured at 1MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (EMD1S THRU EMD4S)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

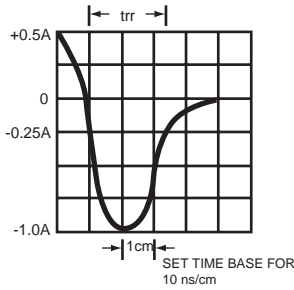


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

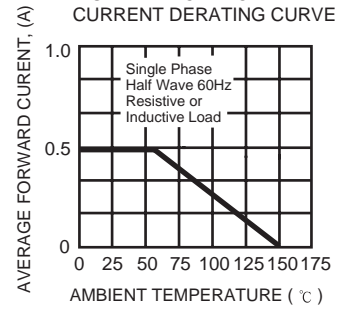


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

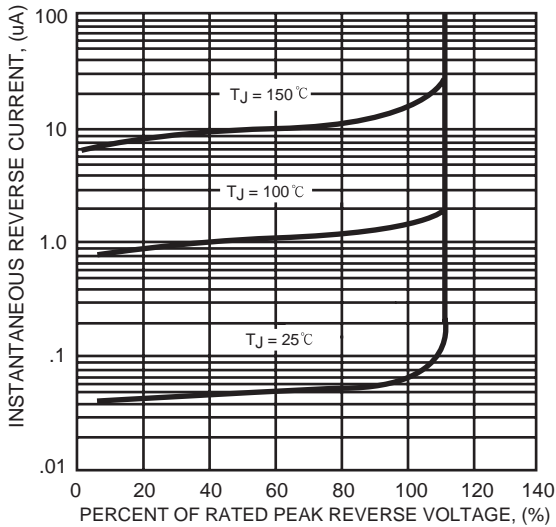


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

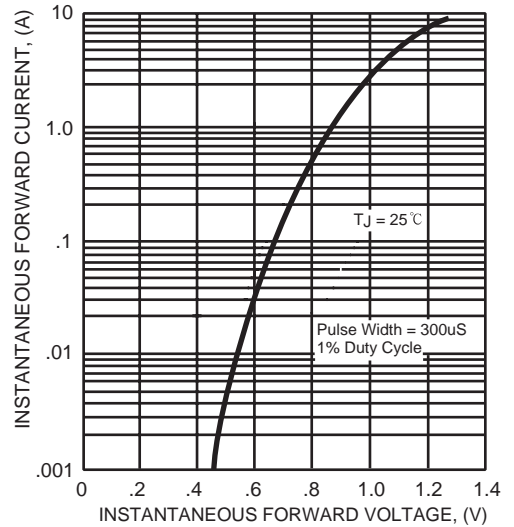


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

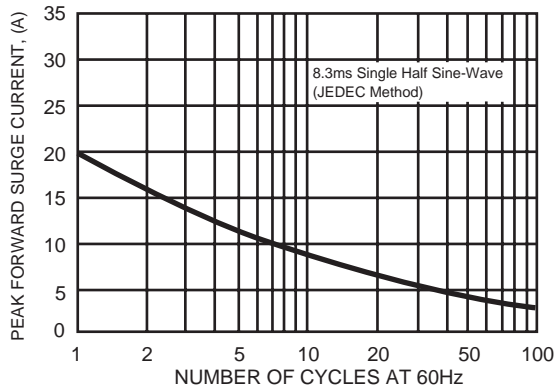
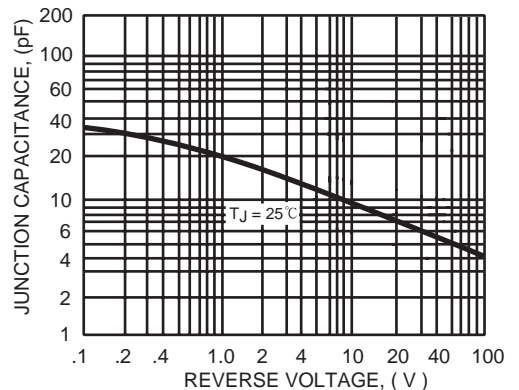
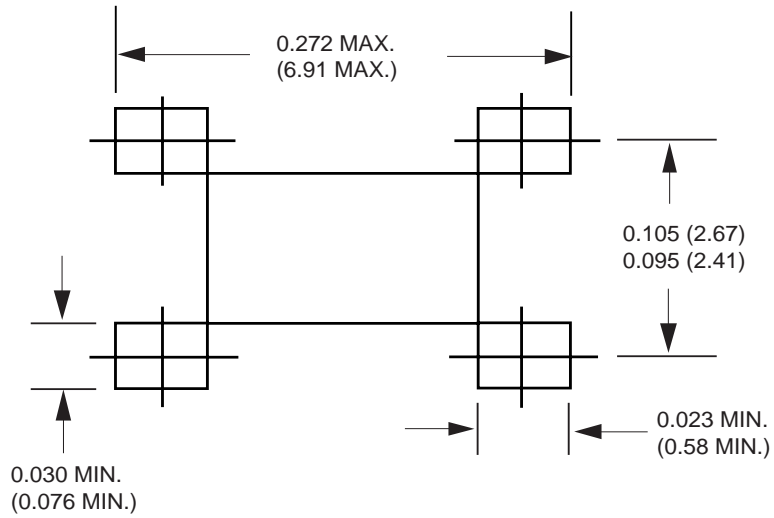


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



Mounting Pad Layout



Dimensions in inches and (millimeters)