

**SINGLE-PHASE GLASS PASSIVATED
MINI SUPER FAST SURFACE MOUNT BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 200 Volts CURRENT 1.0 Ampere

FEATURES

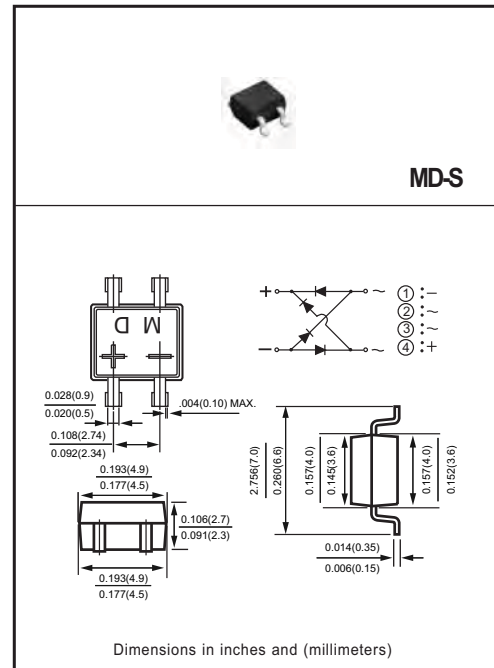
- * Surge overload rating - 20 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.5 gram

MECHANICAL DATA

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Resistive or inductive load.



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	EMD1S	EMD2S	EMD3S	EMD4S	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	Volts
Maximum Average Forward Output Current at $T_A = 30^\circ\text{C}$	I_O	1.0				Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	20				Amps
Typical Current Square Time	I^2T	1.6				A^2S
Typical Junction Capacitance (Note 2)	C_J	15				pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150				$^\circ\text{C}$

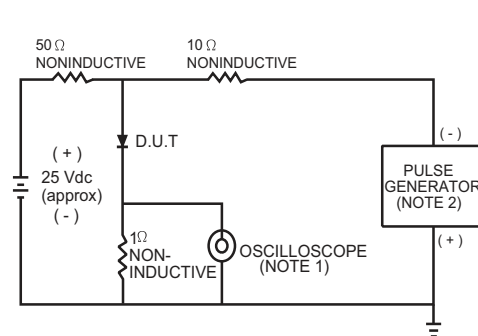
ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	EMD1S	EMD2S	EMD3S	EMD4S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 0.5A DC	V_F	1.05				Volts
Maximum Reverse Current at Rated	I_R	10				uAmps
DC Blocking Voltage per element						0.5
Maximum Reverse Recovery Time (Note 3)	t_{rr}	50				nS

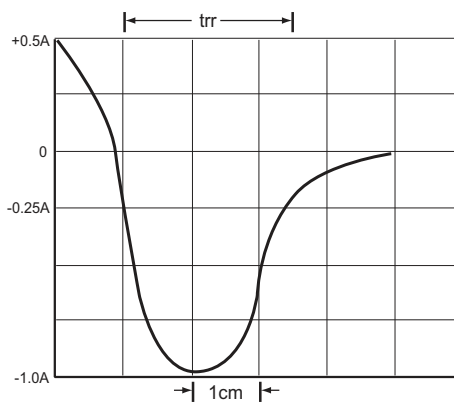
Note: 1. "Fully ROHS compliant", "100% Sn plating(Pb-free).
2. Measure at 1MHz and applied reverse voltage of 4.0 volts.
3. Test Condition : $I_F=0.5\text{A}$, $I_R=-1.0\text{A}$, $I_{RR}=-0.25\text{A}$.

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RATING AND CHARACTERISTICS CURVES (EMD1S THRU EMD4S)



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



SET TIME BASE FOR 20/1 ns/cm

FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

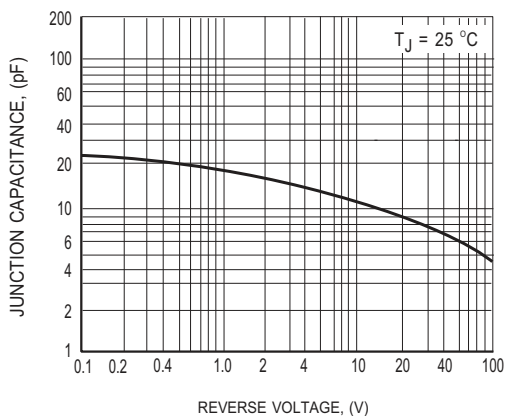


FIG.2 TYPICAL JUNCTION CAPACITANCE

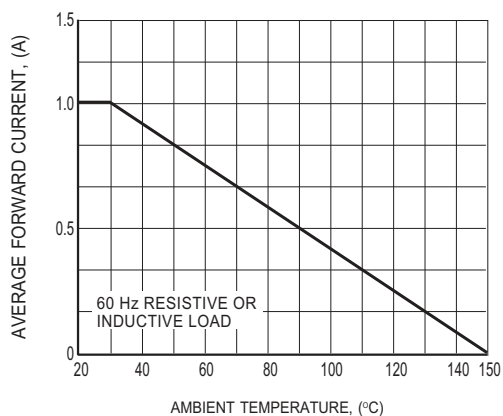


FIG.3 TYPICAL FORWARD CURRENT DERATING CURVE

RATING AND CHARACTERISTICS CURVES (EMD1S THRU EMD4S)

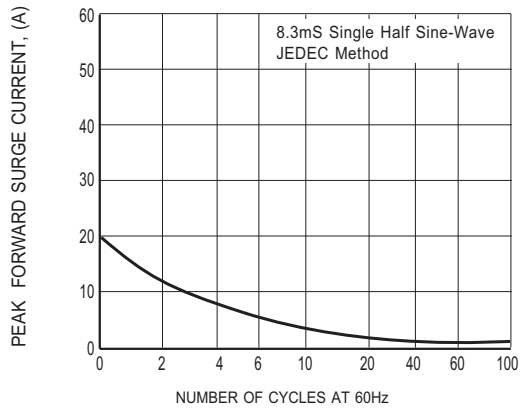


FIG. 4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

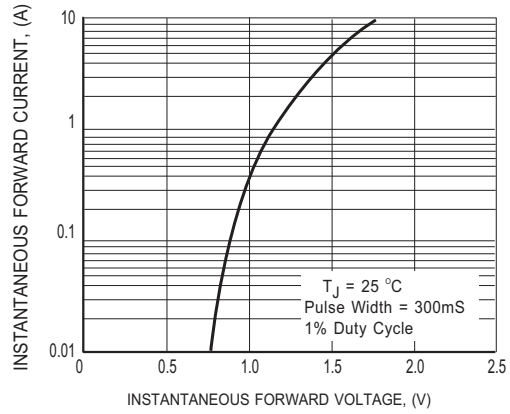


FIG.5 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

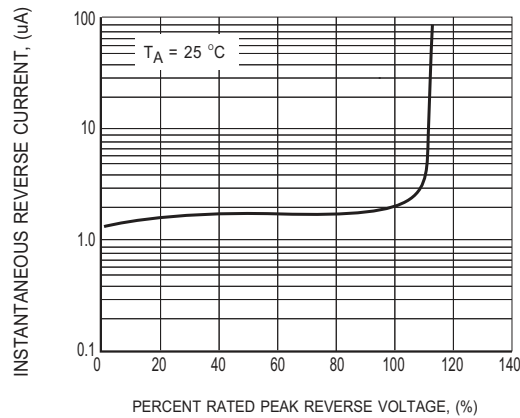
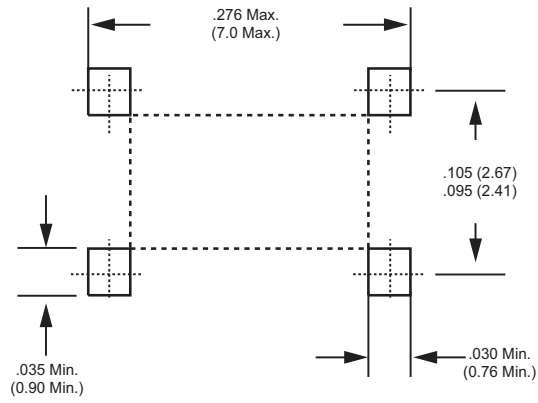


FIG.6 TYPICAL REVERSE CHARACTERISTICS

Mounting Pad Layout



Dimensions in inches and (millimeters)

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
MD-S	-T	500	2,000	---	---	178	390*205*310	16,000	---
MD-S	-W	3,000	6,000	---	---	330	360*355*360	48,000	15.50

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