

**SINGLE-PHASE GLASS PASSIVATED
SILICON BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 1000 Volts CURRENT 0.5 Ampere

FEATURES

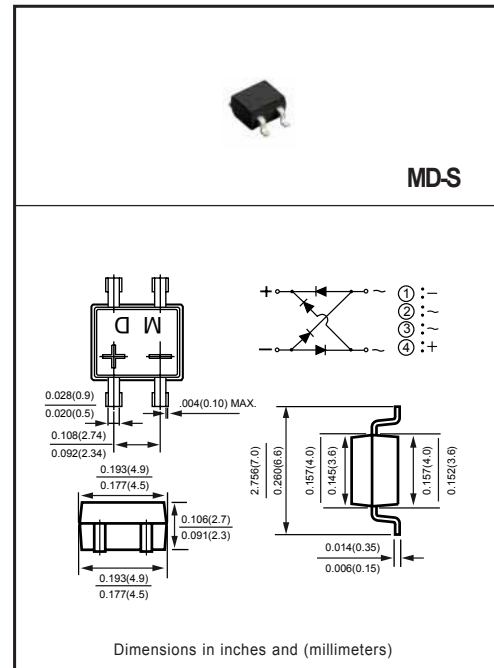
- * Surge overload rating - 30 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.5 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O
- * UL listed under the recognized component directory, file #E94233.

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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	MD1S	MD2S	MD3S	MD4S	MD5S	MD6S	MD7S	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T _A = 40°C	I _O	0.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30							Amps
Typical Thermal Resistance (Note 2)	R _{θJA}	85							°C/W
	R _{θJL}	20							
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to + 150							°C

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

CHARACTERISTICS	SYMBOL	MD1S	MD2S	MD3S	MD4S	MD5S	MD6S	MD7S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 0.5A DC	V_F	1.05							Volts
Maximum Reverse Current at Rated	I_R	5.0							μAmps
DC Blocking Voltage per element		0.5							mAmps

Note: 1. "Fully ROHS compliant", "100% Sn plating(Pb-free).
2. Thermal Resistance: PCB mounted.

2007-08

RATING AND CHARACTERISTICS CURVES (MD1S THRU MD7S)

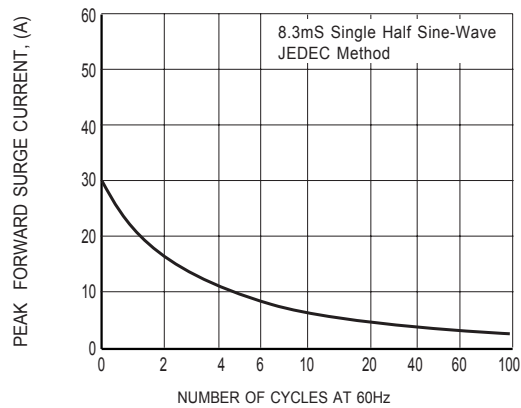


FIG. 1 - MAXIMUM NON-REPETITIVE
FORWARD SURGE CURRENT

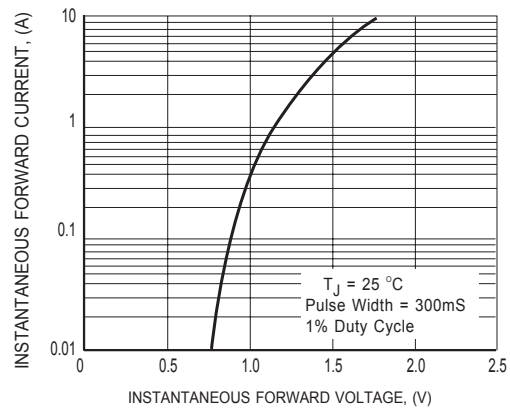


FIG. 2 TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

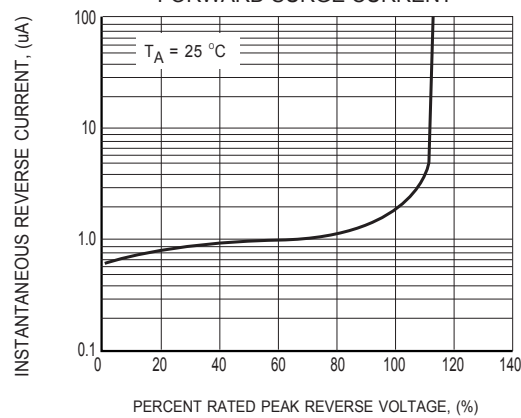


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

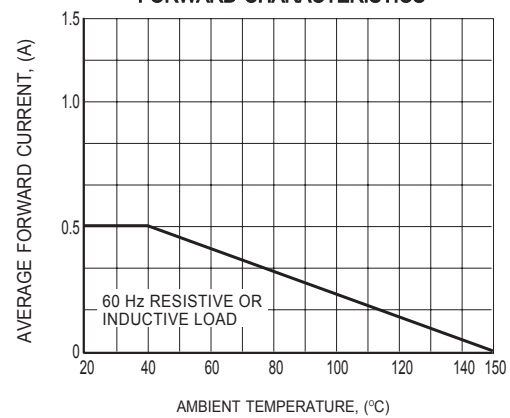
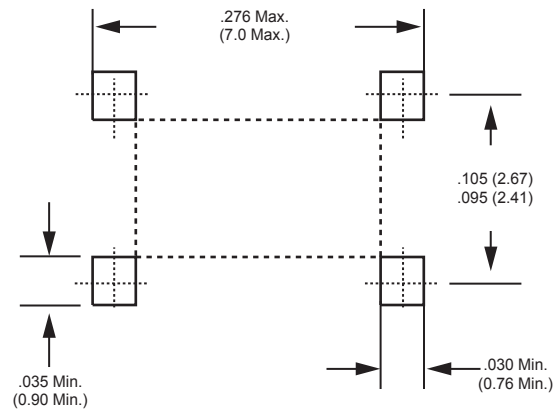


FIG. 4 TYPICAL FORWARD CURRENT
DERATING CURVE

Mounting Pad Layout



Dimensions in inches and (millimeters)

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