

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

**FEATURES**

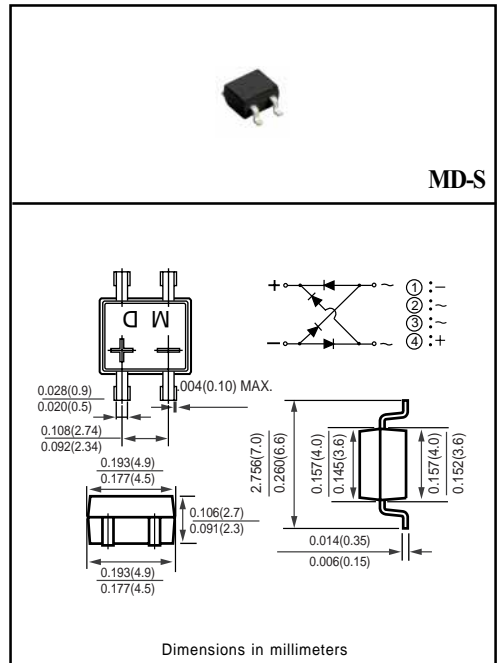
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 0.5 gram

**MECHANICAL DATA**

- \* Epoxy : Device has UL flammability classification 94V-0
- \* UL listed 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 TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	MD1S	MD2S	MD3S	MD4S	MD5S	MD6S	MD7S	UNITS	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	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	30								Amps
Operating and Storage Temperature Range	TJ,TSTG	-55 to + 150								°C

**ELECTRICAL CHARACTERISTICS** (At TA = 25°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	VF	1.05								Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	IR	10								uAmps
		0.5								mAmps

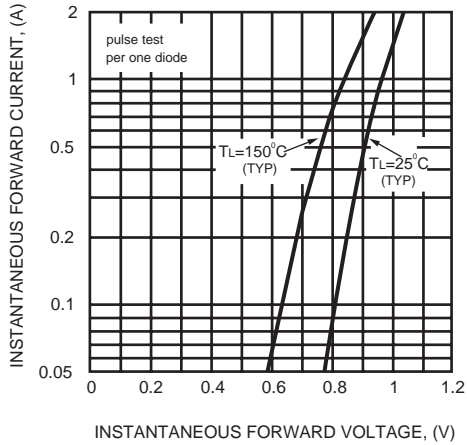
NOTE: 1. On glass-epoxy P.C.B. mounted on 0.05 X 0.05" (1.3 X 1.3mm) pads.

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.

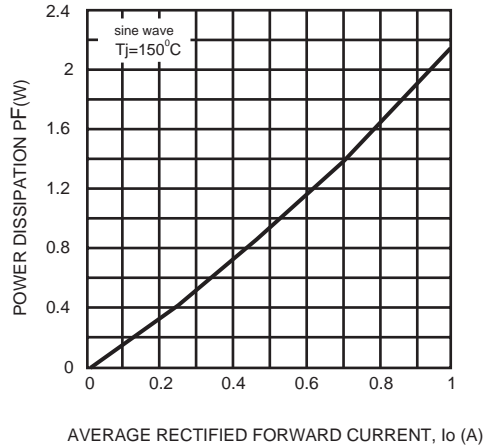
3. Suffix "-S" Surface Mount for Mini Dip Bridge.

# RATING AND CHARACTERISTIC CURVES ( MD1S THRU MD7S )

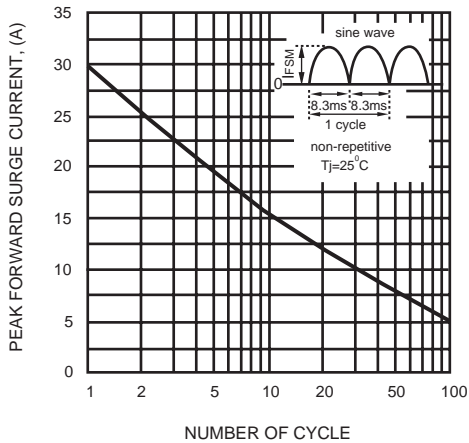
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



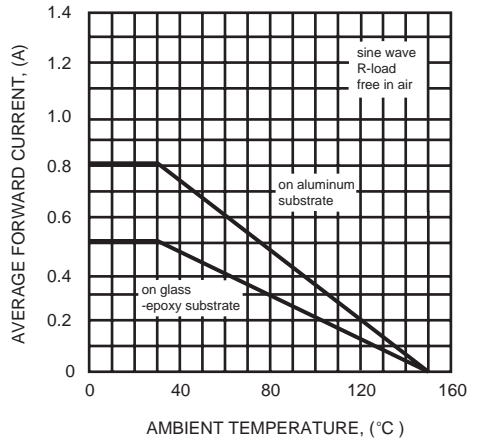
POWER DISSIPATION



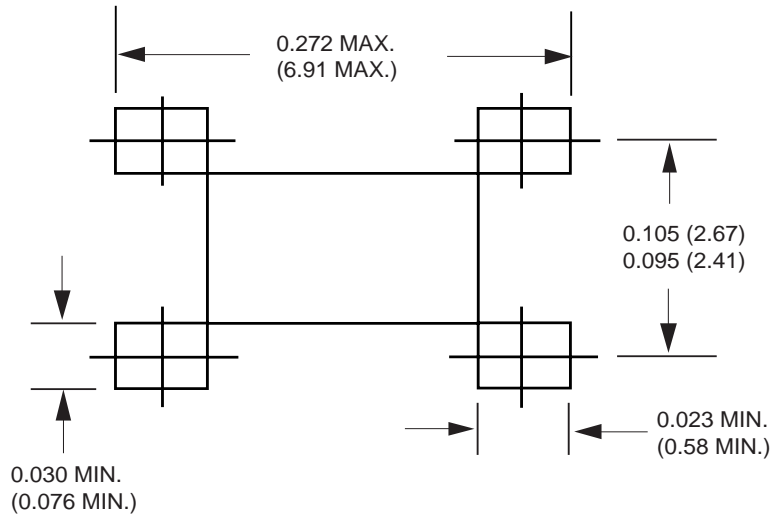
SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE



## Mounting Pad Layout



Dimensions in inches and (millimeters)