

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

**FEATURES**

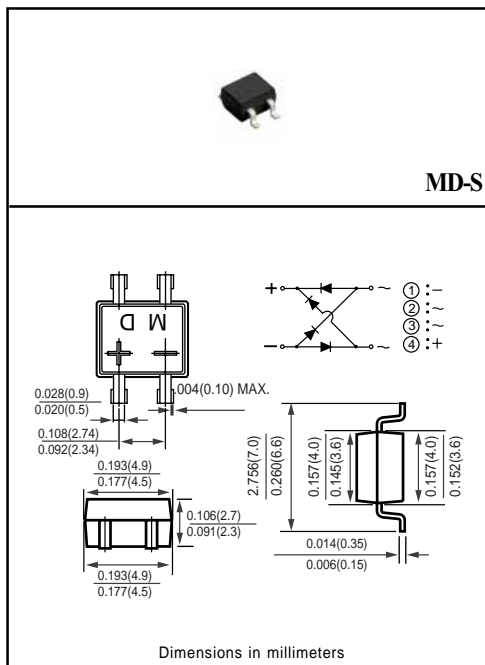
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 0.5 gram

**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	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	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 )	I <sub>O</sub>	0.5						0.8		Amp
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30								Amps
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-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	V <sub>F</sub>	1.05								Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	I <sub>R</sub>	10								uAmps
		0.5								mAmps

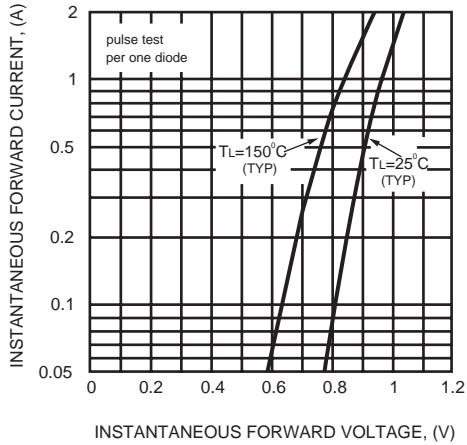
NOTE: 1. On glass-epoxy P.C.B. mounted on 0.05 X 0.05" (1.3 X 1.3mm) pads.

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.

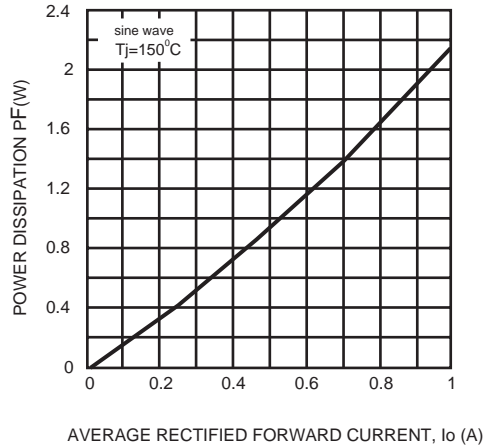
3. Suffix "-S" Surface Mount for Mini Dip Bridge.

# RATING AND CHARACTERISTIC CURVES ( MD1S THRU MD7S )

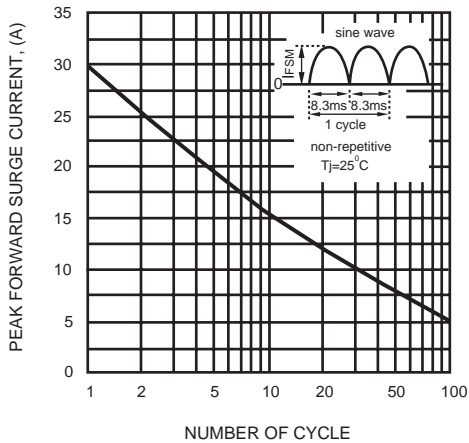
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



POWER DISSIPATION



SURGE FORWARD CURRENT CAPABILITY



TYPICAL FORWARD CURRENT DERATING CURVE

