



## SINGLE-PHASE GLASS PASSIVATED MINI FAST RECOVERY SURFACE MOUNT BRIDGE RECTIFIER VOLTAGE RANGE 50 to 1000 Volts CURRENT 0.8 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

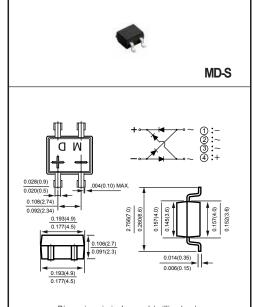
## **MECHANICAL DATA**

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.



Dimensions in inches and (millimeters)

2007-08

#### MAXIMUM RATINGS (At T<sub>A</sub> = 25°C unless otherwise noted)

For capacitive load, derate current by 20%.

RATINGS	SYMBOL	FMD1S	FMD2S	FMD3S	FMD4S	FMD5S	FMD6S	FMD7S	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	480	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T_A =30°C -on glass-epoxy P.C.B. (Note 2) -on aluminum substrate (Note 3)	Ι <sub>Ο</sub>	0.5 0.8						Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30					Amps		
Typical Junction Capacitance (Note 4)	CJ	15						pF	
Operating and Storage Temperature Range	TJ,TSTG	-55 to + 150						۰C	

ELECTRICAL CHARACTERISTICS (At T<sub>A</sub> = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	FMD1S	FMD2S	FMD3S	FMD4S	FMD5S	FMD6S	FMD7S	UNITS
Maximum Forward Voltage Drop per Bridge		VF	1.30							Volts
Element at 0.4A DC		VF								
Maximum Reverse Current at Rated	@T <sub>A</sub> = 25°C	1-	10						μAmps	
DC Blocking Voltage per element	@T <sub>A</sub> = 125°C	IR	0.1							mAmps
Maximum Reverse Recovery Time (Note 5)		trr		1	50		250	50	00	nS

Note: 1."Fully ROHS compliant","100% Sn plating(Pb-free).

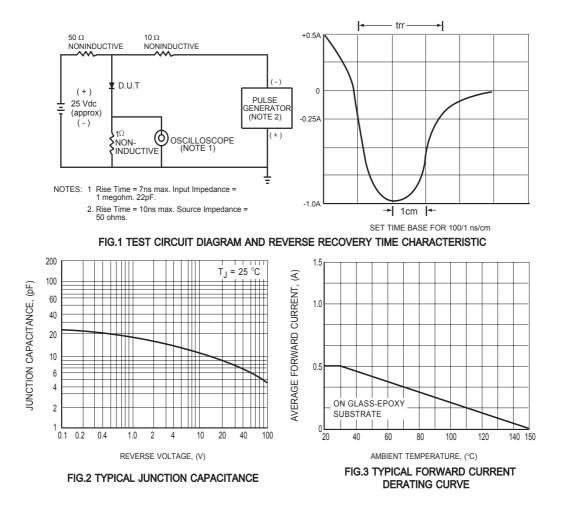
2. On glass-epoxy P.C.B. mounted on 0.05 X 0.05" (1.3 X 1.3mm) pads.

3. 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.

4. Measure at 1MHz and applied reverse voltage of 4.0 volts.

5. Test Condition :  $I_F$ =0.5A,  $I_R$ = -1.0A,  $I_{RR}$ = -0.25A.

# RATING AND CHARACTERISTICS CURVES (FMD1S THRU FMD7S)



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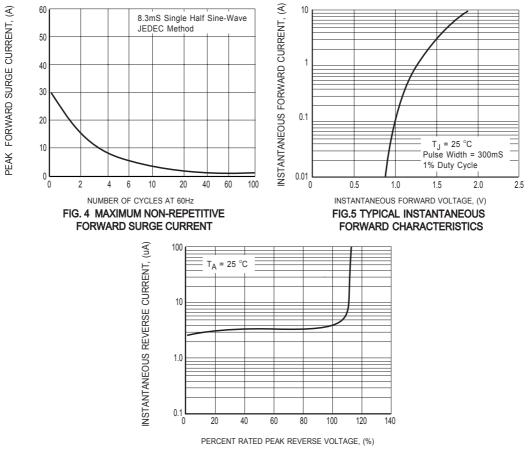
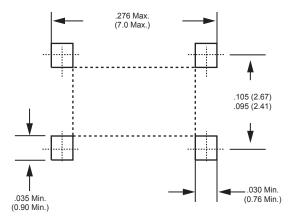


FIG.6 TYPICAL REVERSE CHARACTERISTICS

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# Mounting Pad Layout



Dimensions in inches and (millimeters)



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