

**FAST RECOVERY RECTIFIER**

**VOLTAGE RANGE 1000 to 1800 Volts CURRENT 0.5 Ampere**

**FFM1000W**  
**THRU**  
**FFM1800W**

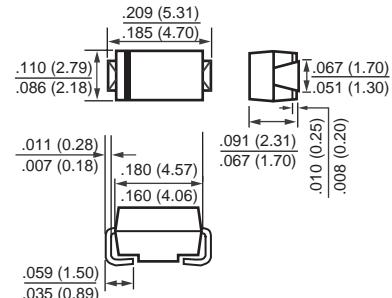
**FEATURES**

- \* Fast switching
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* High current surge
- \* High reliability

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any

**SMX**



Dimensions in inches and (millimeters)

**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	FFM1000W	FFM1200W	FFM1400W	FFM1500W	FFM1600W	FFM1800W	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	1000	1200	1400	1500	1600	1800	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	700	840	980	1050	1120	1260	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	1000	1200	1400	1500	1600	1800	Volts
Maximum Average Forward Rectified Current at TA = 25°C	I <sub>O</sub>				0.5			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>				25			Amps
Typical Junction Capacitance (Note 2)	C <sub>J</sub>			15				pF
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	FFM1000W	FFM1200W	FFM1400W	FFM1500W	FFM1600W	FFM1800W	UNITS
Maximum Instantaneous Forward Voltage at 0.5A DC	V <sub>F</sub>			1.8				Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I <sub>R</sub>			5.0				uAmps
Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at TL = 55°C				100				uAmps
Maximum Reverse Recovery Time (Note 1)	trr			300				nSec

NOTES : 1. Reverse Recovery Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

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# RATING AND CHARACTERISTIC CURVES ( FFM1000W THRU FFM1800W )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

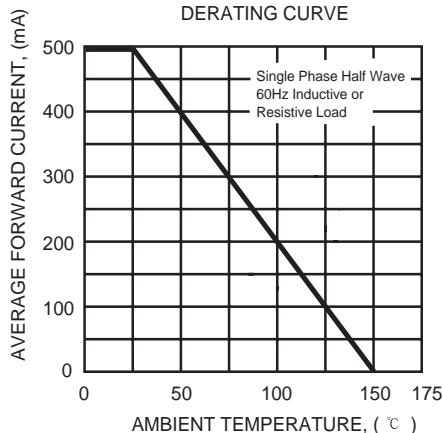


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

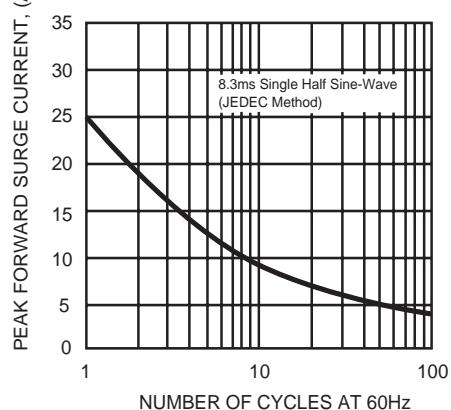


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

