

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 1000 to 1800 Volts CURRENT 0.5 Ampere

FEATURES

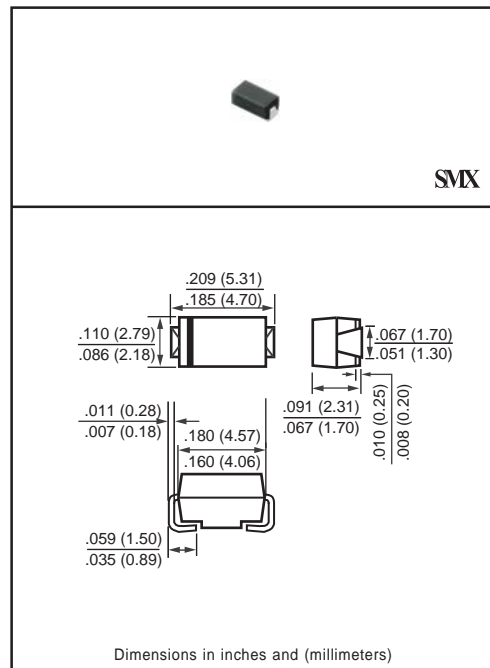
- * Fast switching
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High current surge
- * High reliability

MECHANICAL DATA

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

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 _{RRM}	1000	1200	1400	1500	1600	1800	Volts
Maximum RMS Voltage	V _{RMS}	700	840	980	1050	1120	1260	Volts
Maximum DC Blocking Voltage	V _{DC}	1000	1200	1400	1500	1600	1800	Volts
Maximum Average Forward Rectified Current at TA = 25°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}	25						Amps
Typical Current Squared Time	I ² t	2.6						A ² S
Typical Junction Capacitance (Note 2)	C _J	15						pF
Operating and Storage Temperature Range	T _J , T _{STG}	-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 _F	1.8						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	I _R	5.0						uAmps
Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at TL = 55°C	I _R	100						uAmps
Maximum Reverse Recovery Time (Note 1)	t _{rr}	300						nSec

NOTES : 1. Reverse Recovery Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (FFM1000W THRU FFM1800W)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

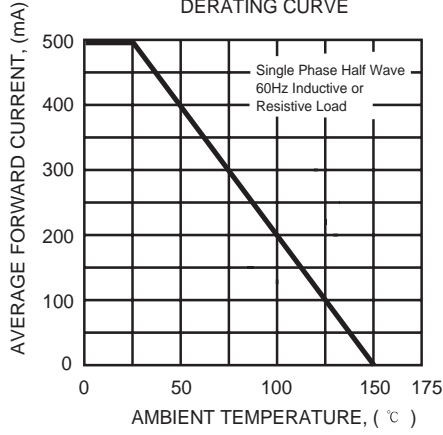


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

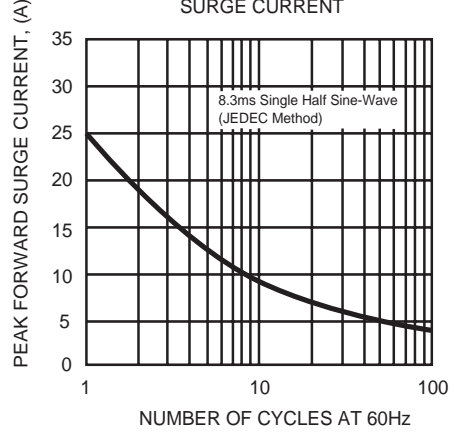
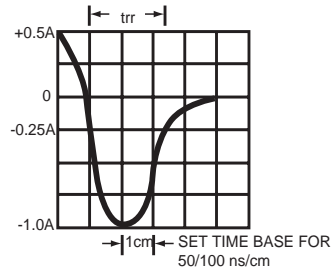
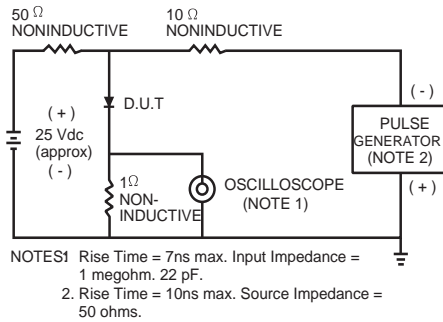
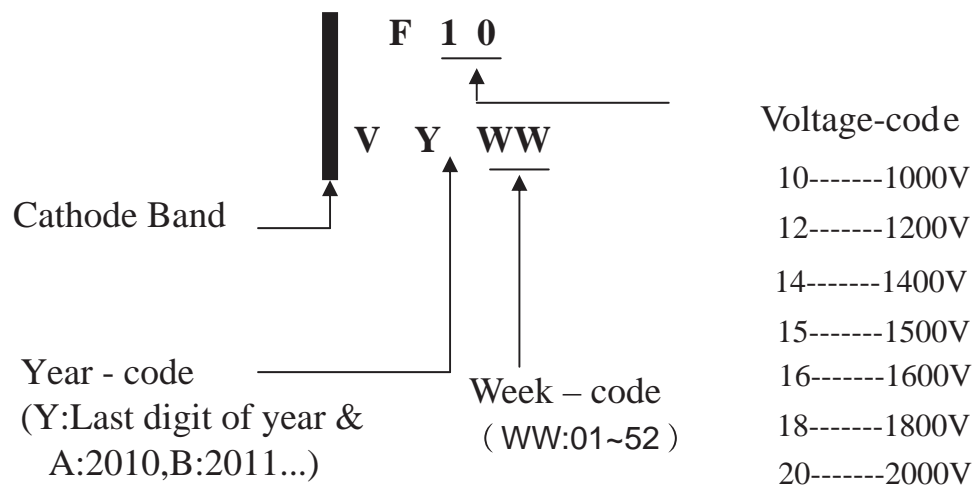


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SMX	-T	1,500	6,000	---	---	178	390*205*310	48,000	---
SMX	-W	5,000	10,000	---	---	330	360*355*360	80,000	15.20