



FFM101-M THRU FFM107-M

SURFACE MOUNT FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0Ampere

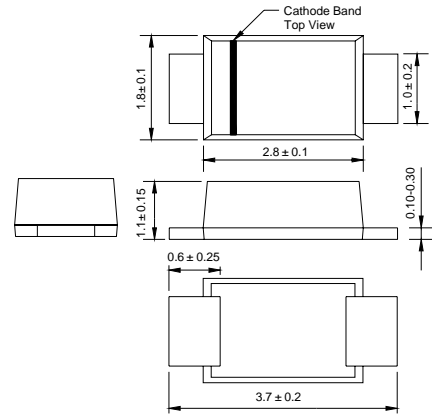
FEATURES

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

- Case:** JEDEC SOD-123FL molded plastic body over passivated chip
- Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity:** Color band denotes cathode end
- Mounting Position:** Any
- Weight:** 0.0007 ounce, 0.02 grams

SOD-123FL



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

	SYMBOLS	FFM101-M F1	FFM102-M F2	FFM103-M F3	FFM104-M F4	FFM105-M F5	FFM106-M F6	FFM107-M F7	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS	
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS	
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS	
Maximum average forward rectified current at $T_A=100^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	1.0							Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	I_{FSM}	30.0							Amps	
Maximum instantaneous forward voltage at 1.0A	V_F	1.3							Volts	
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0 100.0							μA	
Maximum reverse recovery time (NOTE 2)	t_{rr}	150				250		500		ns
Typical junction capacitance (NOTE 3)	C_J	15							pF	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$	

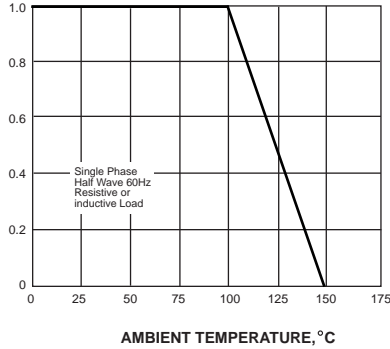
- Note:**
1. Averaged over any 20ms period.
 2. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.
 3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



RATINGS AND CHARACTERISTIC CURVES FFM101-M THRU FFM107-M

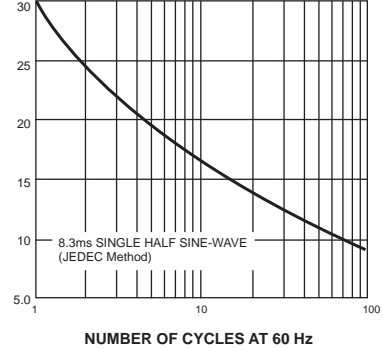
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



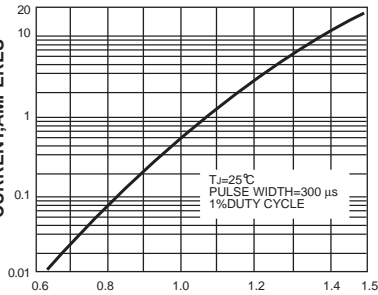
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



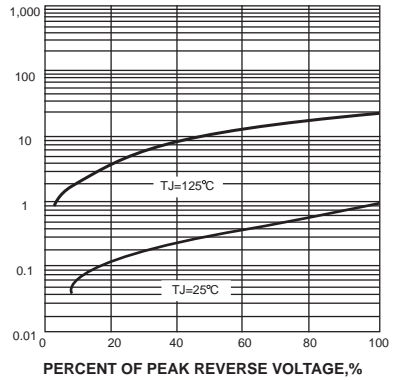
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



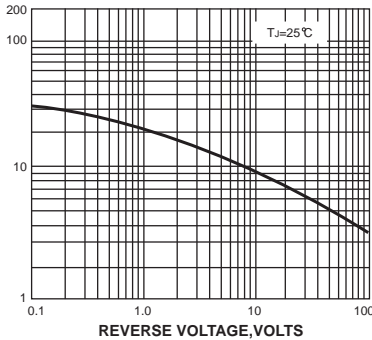
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

