



SFM11PL THRU SFM18PL

SURFACE MOUNT SUPER FAST RECTIFIER

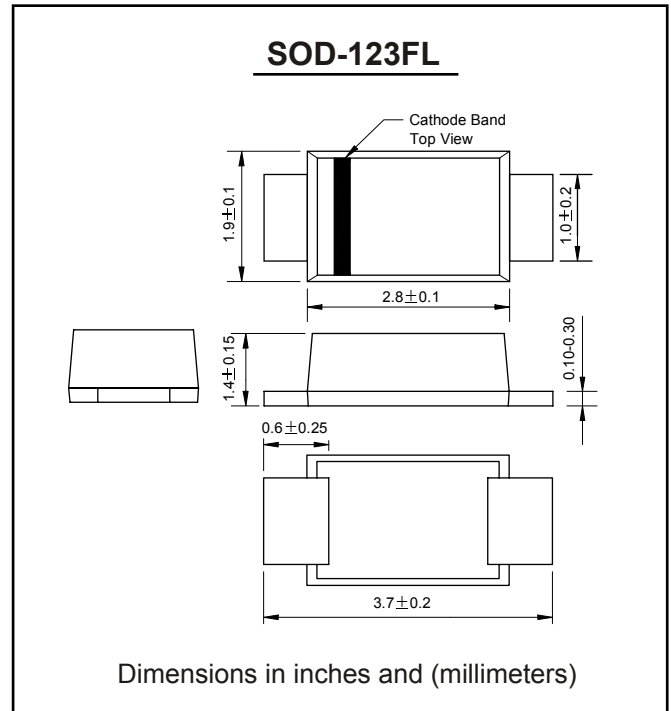
Reverse Voltage - 50 to 600 Volts Forward Current - 1.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: SOD-123FL, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.017 grams



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%.

Characteristics	Symbol	SFM11 PL	SFM12 PL	SFM13 PL	SFM14 PL	SFM15 PL	SFM16 PL	SFM17 PL	SFM18 PL	Unit	
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	300	400	500	600	V	
Maximum RMS Voltage	VRMS	35	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	VDC	50	100	150	200	300	400	500	600	V	
Maximum Average Forward Rectified Current @TA=50°C	IF(AV)	1.0								A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	25								A	
Maximum Instantaneous At 1.0A DC	VF	0.95			1.25		1.70			V	
Maximum DC Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=100°C	IR	5.0					100				uA
Reverse Recovery Time (Note1)	T _{RR}	35								nS	
Operating Temperature Range	T _J	-55 to +150								°C	
Storage Temperature Range	TSTG	-55 to +150								°C	

Note: 1. Measured with IF = 0.5A, IR = 1.0A, IRR = 0.25A.



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RATINGS AND CHARACTERISTIC CURVES

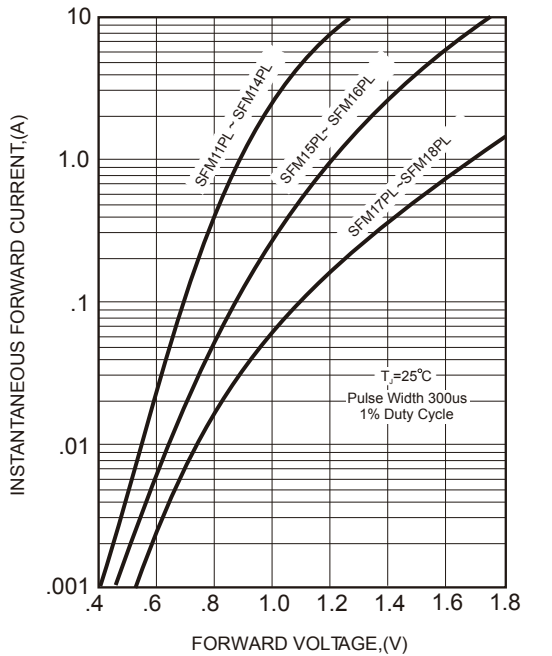


FIG.1-TYPICAL FORWARD CHARACTERISTICS

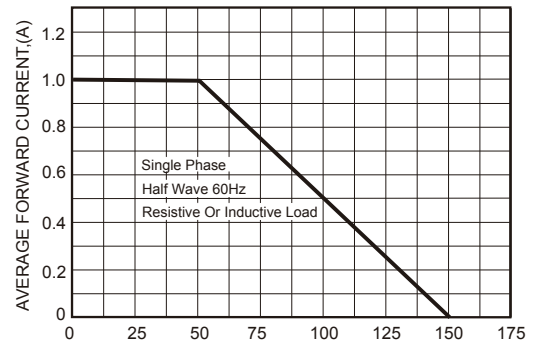


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

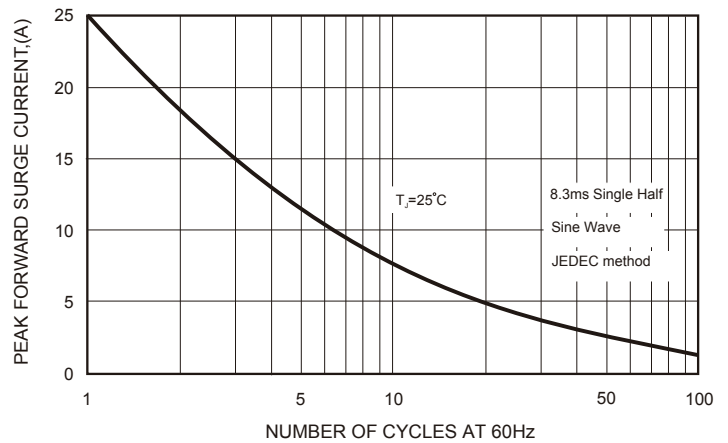
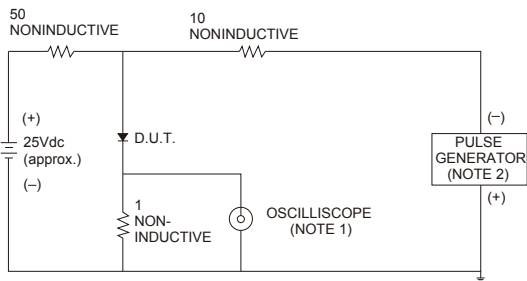


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

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

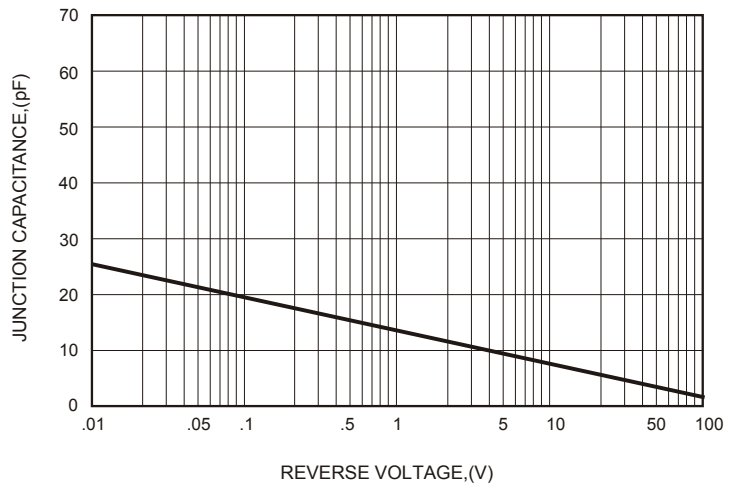
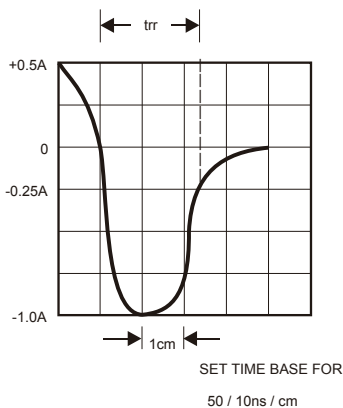


FIG.5-TYPICAL JUNCTION CAPACITANCE