

SFM11PL~SFM18PL

SUPERFAST RECOVERY RECTIFIER

VOLTAGE 50 to 600 Volt **CURRENT** 1.0Ampere

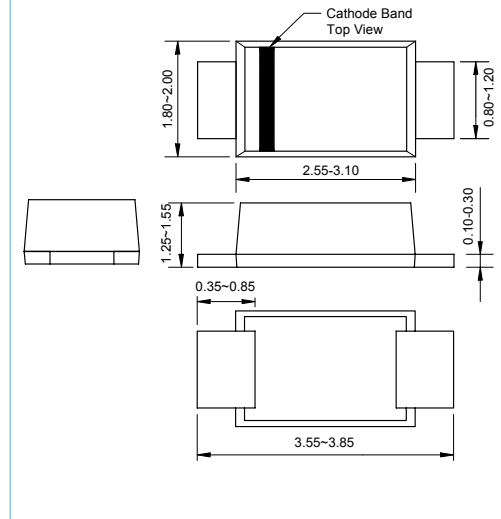
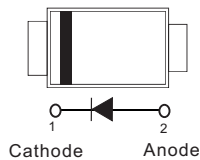
SOD-123FL Unit:mm

FEATURES

- High efficiency,
- High current capability
- High reliability
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	SFM11PL	SFM12PL	SFM13PL	SFM14PL	SFM15PL	SFM16PL	SFM17PL	SFM18PL	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Current (see FIG.1)	I _{F(AV)}	1								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30								A
Maximum Forward Voltage at 1 A	V _F	0.95				1.25		1.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage T _A = 25 °C T _A = 100 °C	I _R	5 100								µA
Maximum reverse recovery time (Note1)	t _{rr}	35								ns
Typical Junction Capacitance (Note2)	C _J	10								pF
Thermal Resistance (Note3)	R _{θJA}	50								°C / W
Operating Junction Temperature Range	T _J	-55 to +150								°C
Storage Temperature Range	T _{STG}	-55 to +150								°C

NOTES:

1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_r = 0.25$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 volt
3. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

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RATING AND CHARACTERISTIC CURVES

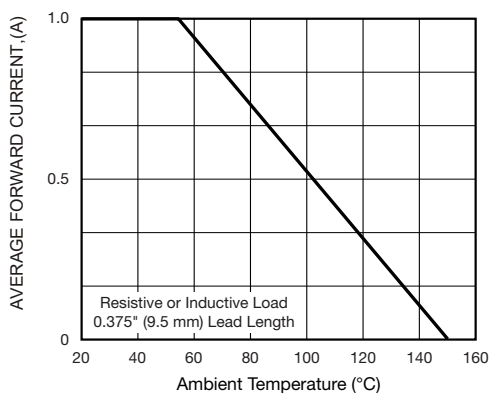


Fig. 1 Forward Current Derating Curve

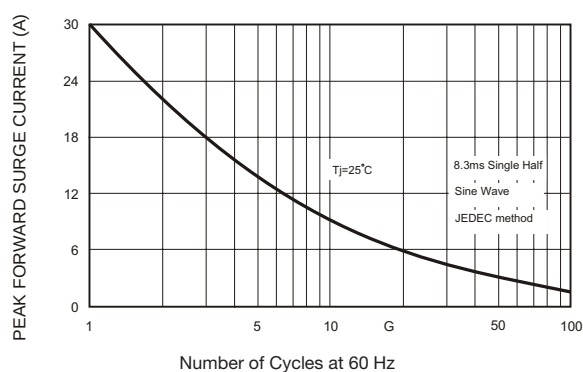


Fig. 2 Surge Current Derating Curve

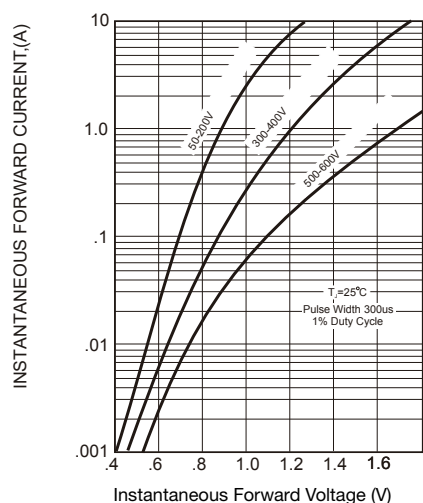


Fig. 3 Typical Forward Characteristics

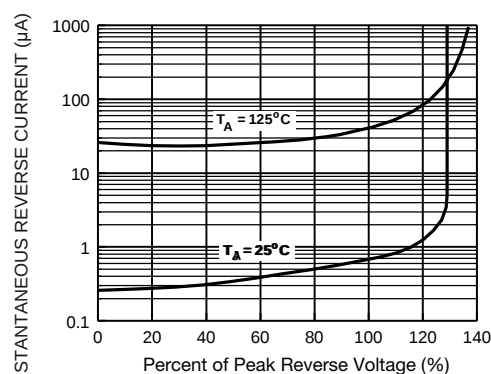


Fig. 4 Typical Reverse Characteristics

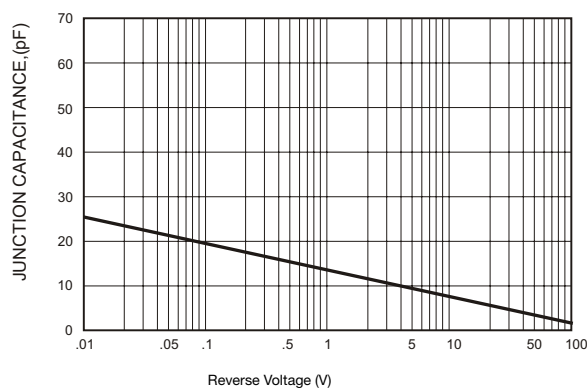
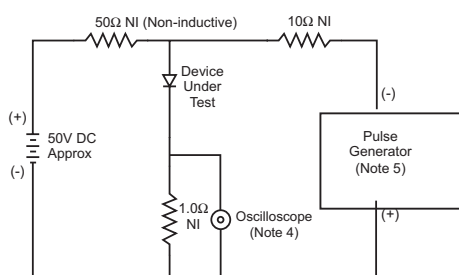
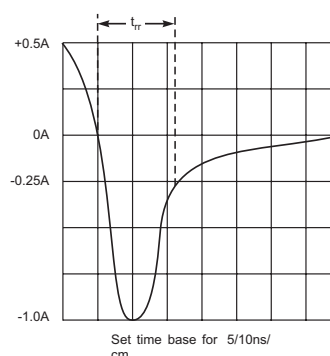


Fig. 5 Typical Junction Capacitance



- Notes:
 4. Rise Time = 7.0ns max. Input Impedance = 1.0M Ω , 22pF.
 5. Rise Time = 10ns max. Input Impedance = 50 Ω .

Fig. 6 Reverse Recovery Time Characteristic and Test Circuit

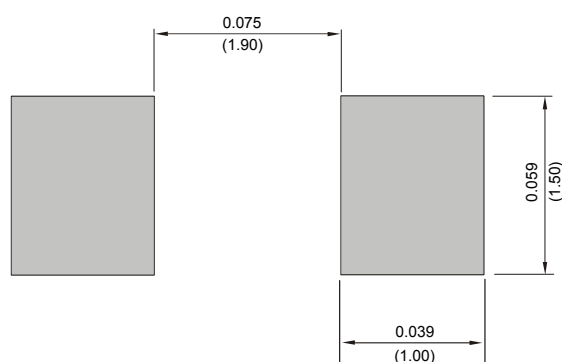


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MOUNTING PAD LAYOUT

SOD-123FL

Unit:Inch(mm)



Ordering Information

• Packing information

SFM11PL~SFM18PL	Packing Quantity
Tape&Reel	7 Inch; 2.5kpcs/Reel
Bulk(Tube/Box)	N/A