



FEATURES

- Average Forward Current: $I_{F(AV)} = 1A$
- Polarity: Color band denotes cathode



SOD-123F



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
FR101-FR107	SOD-123F	F*	3000

* : From 1-7

MAXIMUM RATINGS (Ta=25 unless otherwise noted)

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

TYPE NUMBER	FR101	FR102	FR103	FR104	FR105	FR106	FR107	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Ta=25°C	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	30							A
Maximum Instantaneous Forward Voltage at 1.0A	1.3							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	100							μA
Maximum Reverse Recovery Time (Note 1)	150			250		500		nS
Typical Junction Capacitance (Note 2)	15							pF
Typical Thermal Resistance R JA (Note 3)	80							°C/W
Operating and Storage Temperature Range Tj, Tstg	-65 — +150							°C

NOTES:

1. Reverse Recovery Time test condition: $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal Resistance from Junction to Ambient.



Typical Characteristics

FIG.1-TYPICAL FORWARD CHARACTERISTICS

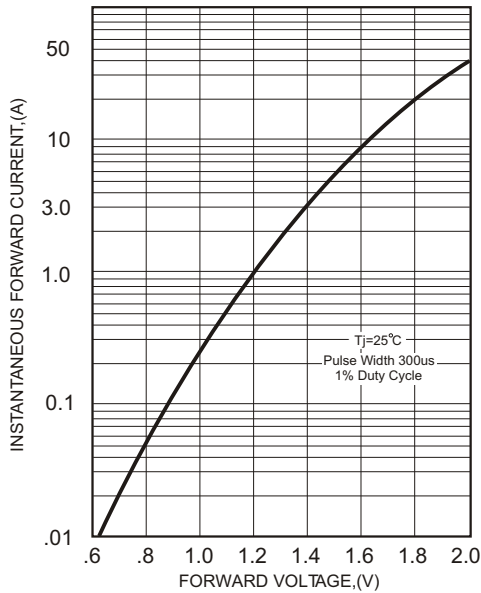


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

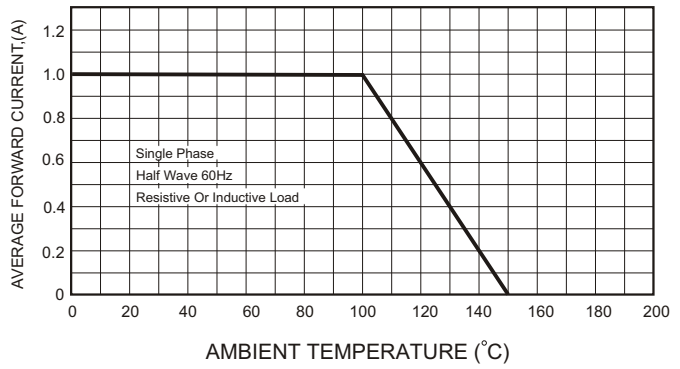
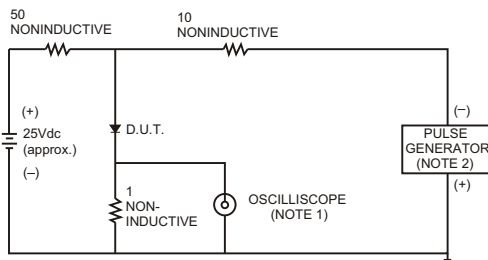


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm,22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

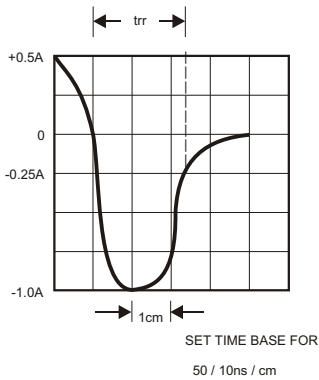


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

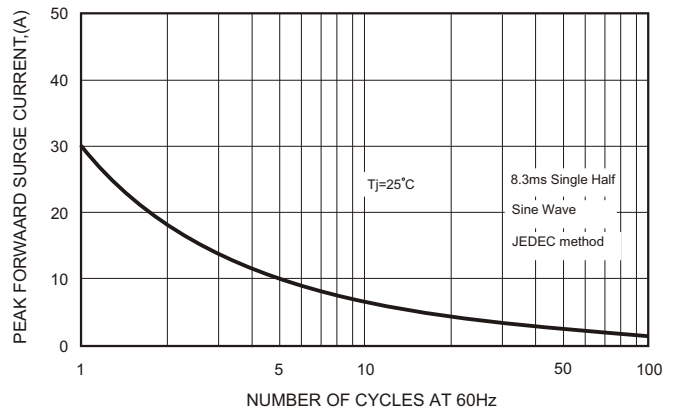
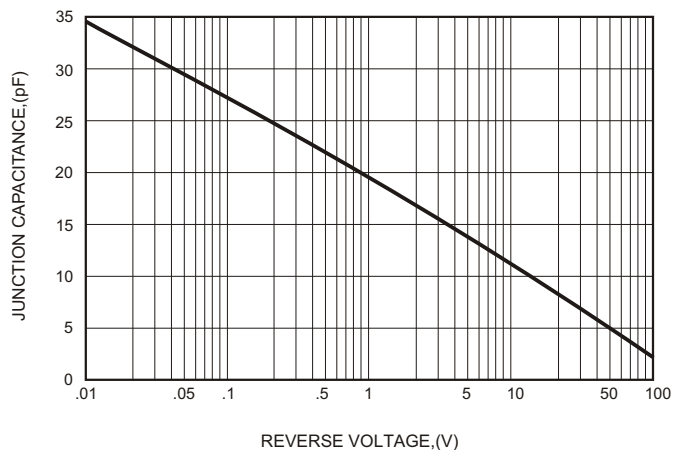
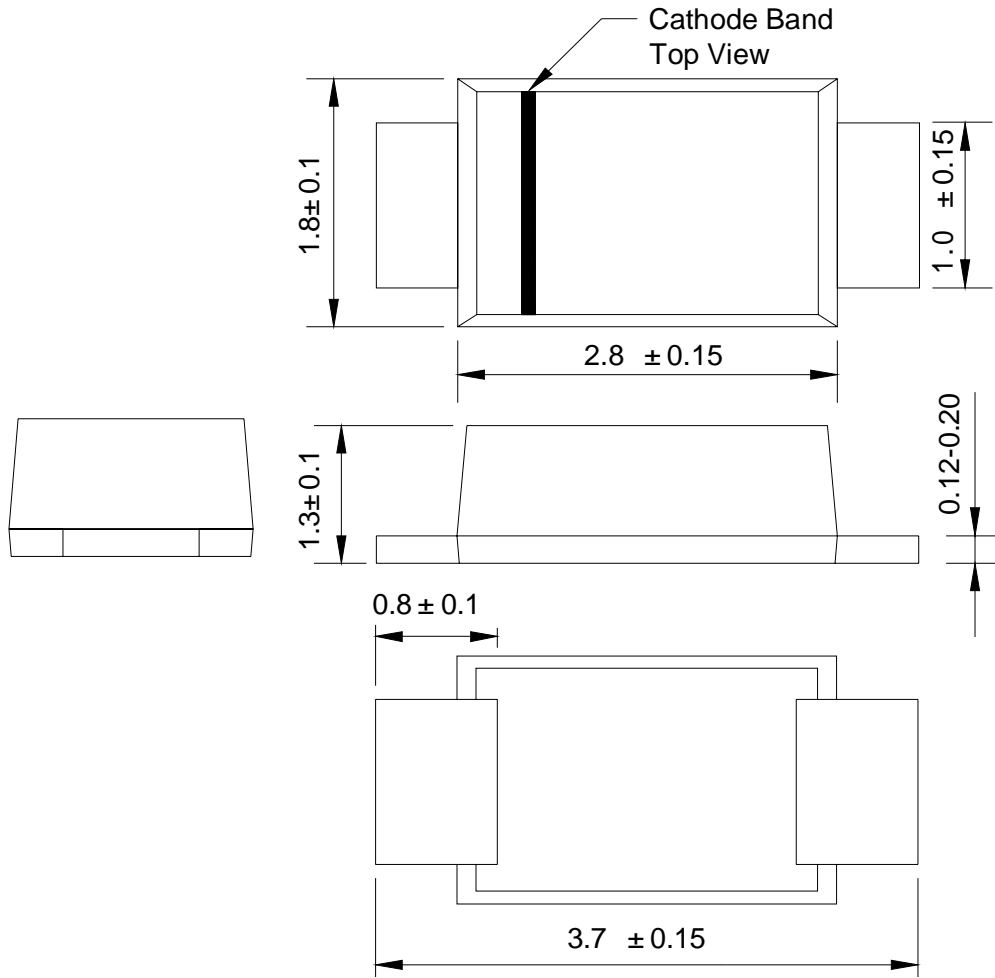


FIG.5-TYPICAL JUNCTION CAPACITANCE





SOD-123F Package Outline Dimensions





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