



Features

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



SOD-123FL



x: From A-J

Maximum Ratings (Ta=25°C unless otherwise noted)

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Type Number	ES1A	ES1B	ES1C	ES1D	ES1E	ES1G	ES1J	Units
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	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	0.95			1.25		1.7		V
Maximum DC Reverse Current Ta=25°C				5.0				µA
at Rated DC Blocking Voltage Ta=100°C				500				µA
Maximum Reverse Recovery Time (Note 1)			35					nS
Typical Junction Capacitance (Note 2)			15					pF
Typical Thermal Resistance R _{JA} (Note 3)			80					°C/W
Operating and Storage Temperature Range T _J , T _{Stg}	-65	— +150						°C

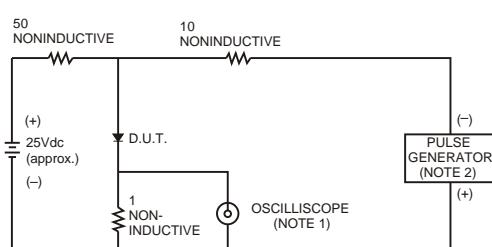
NOTES:

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



Typical Characteristics

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

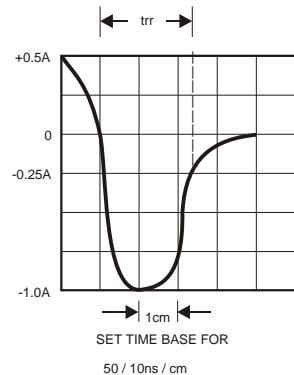


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

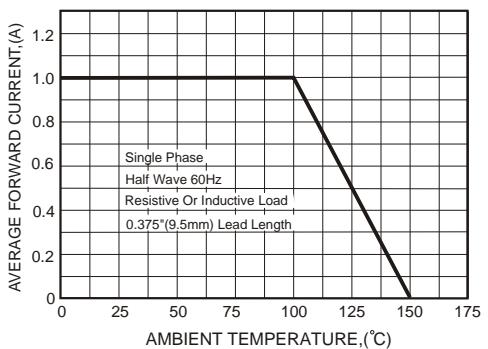


FIG.3-TYPICAL FORWARD CHARACTERISTICS

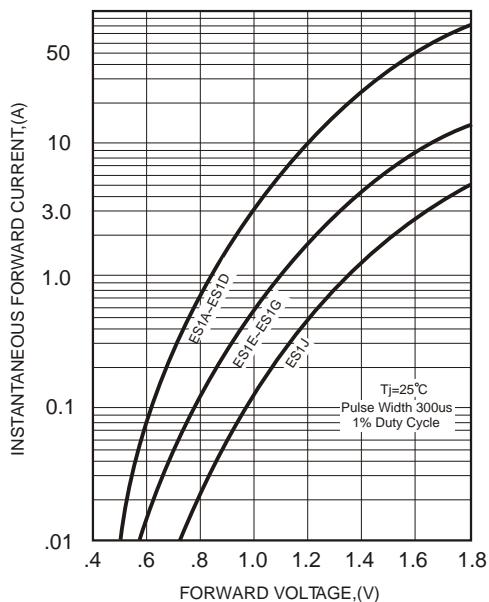


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

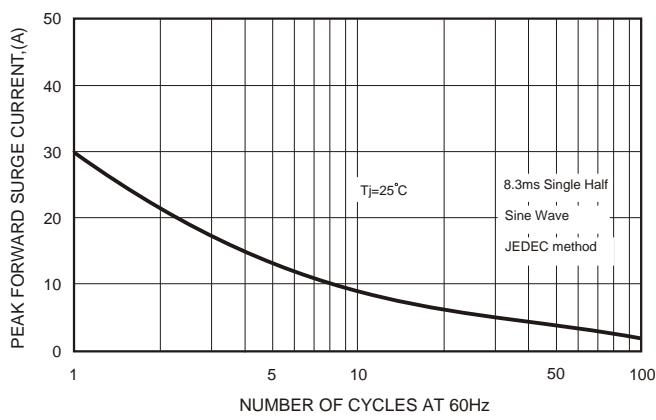


FIG.4-TYPICAL REVERSE CHARACTERISTICS

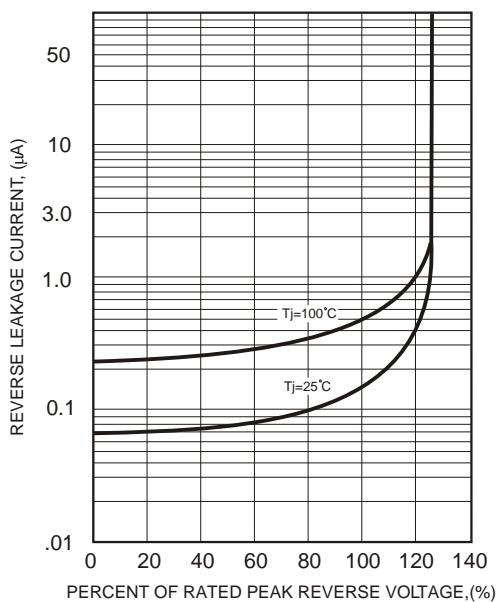
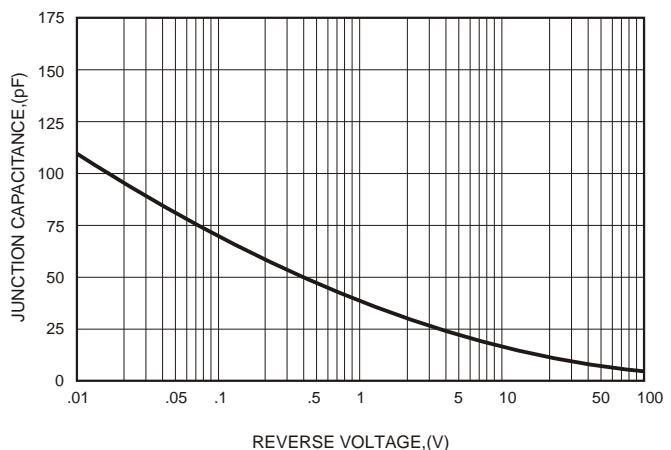
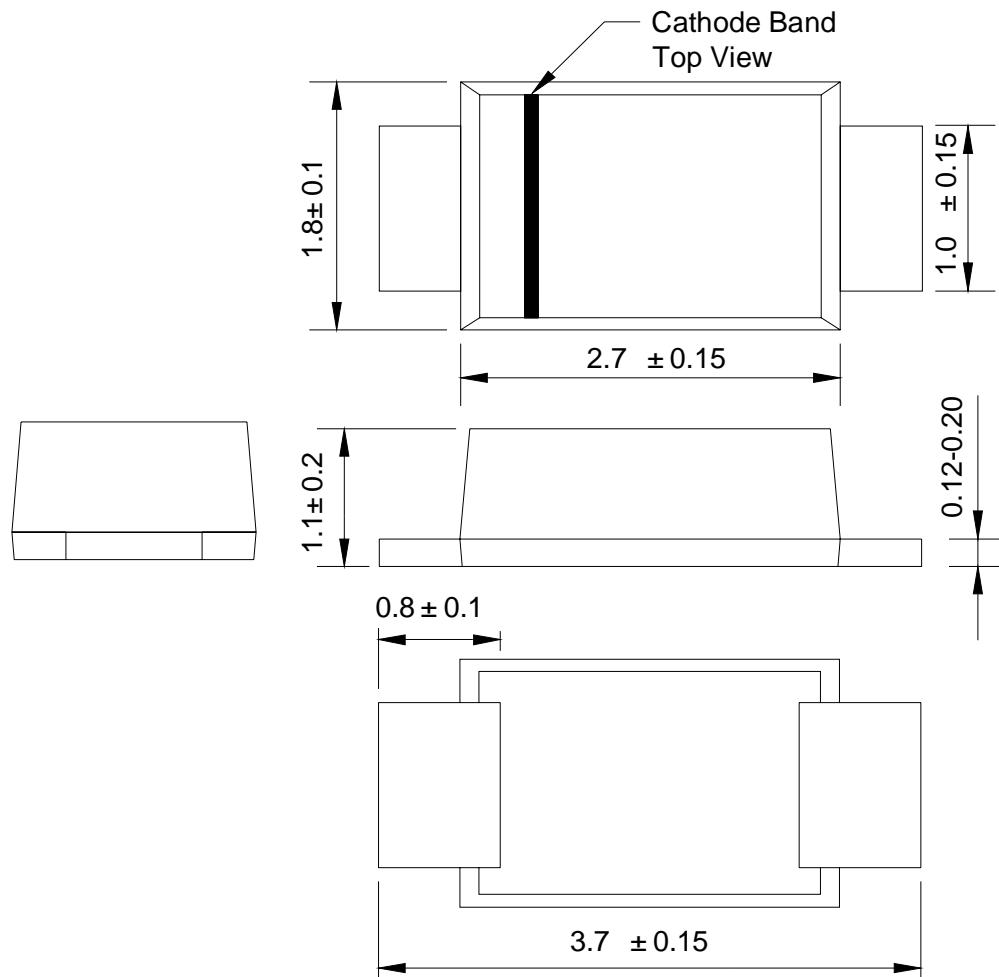


FIG.6-TYPICAL JUNCTION CAPACITANCE





Package Outline Dimensions
SOD-123FL





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