

SURFACE MOUNT RECTIFIERS

SOD1E1--SOD1E8

FEATURES

- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current
- Metallurgically bonded construction
- High temperature soldering: 250°C/10 seconds at terminals



Lead-free

MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable perMIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounces, 0.01 gram
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

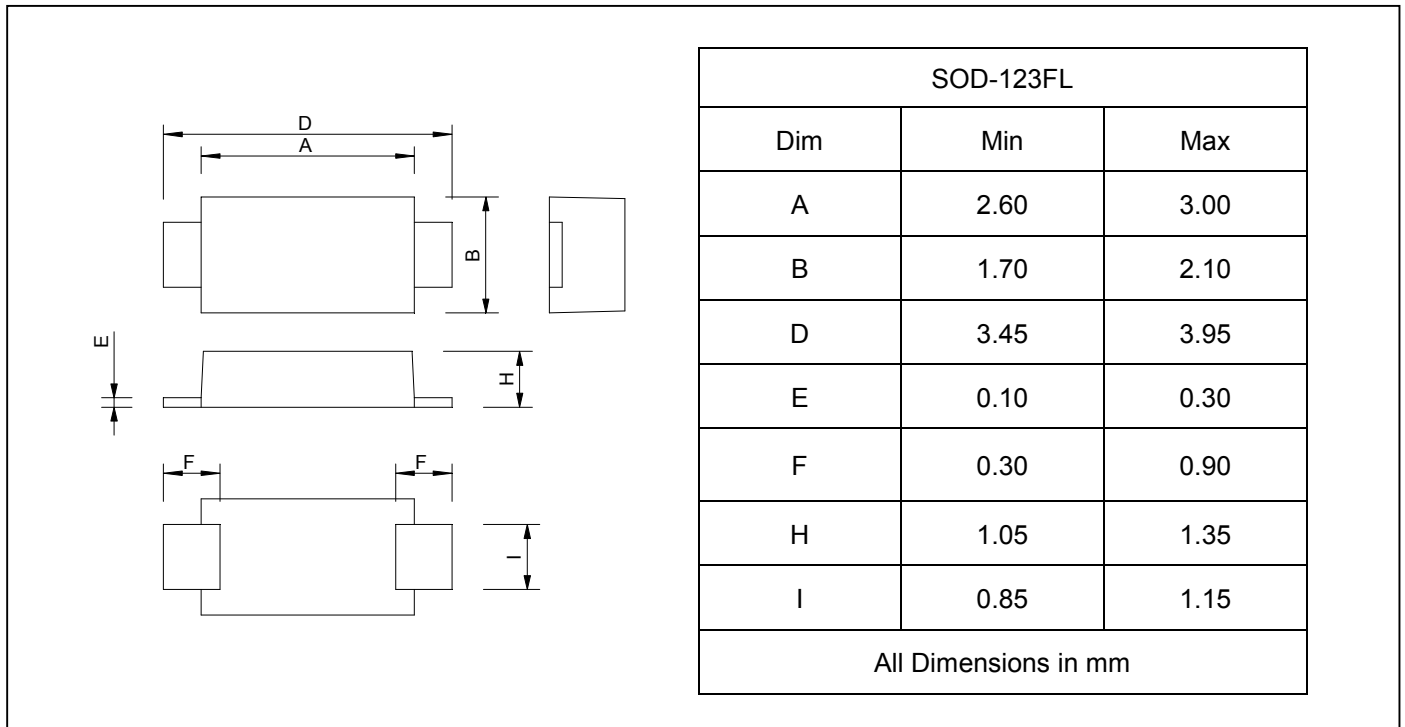
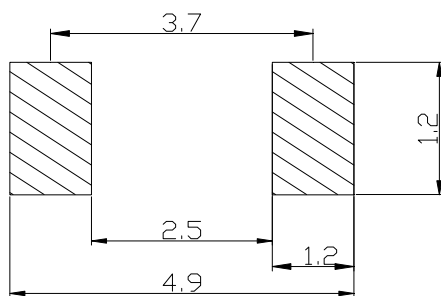
Ratings at 25°C ambient temperature unless otherwise specified.

Single hase , half wave,60Hz,resistive or inductive load. For capacitive, load derate current by 20%.

		SOD 1E1	SOD 1E2	SOD 1E3	SOD 1E4	SOD 1E5	SOD 1E6	SOD 1E7	SOD 1E8	UNITS
Device marking		E1	E2	E3	E4	E5	E6	E7	E8	
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	450	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current $T_A=65^\circ\text{C}$	$I_{(AV)}$	1.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $T_L=25^\circ\text{C}$	I_{FSM}	25								A
Maximum forward voltage at 1.0A (Note 1)	V_F	0.95			1.25		1.7			V
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				150				μA
Maximum reverse recovery time (NOTE 2)	t_{rr}	35								ns
Operating temperature range	T_J	- 55 --- + 150								$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 --- + 150								$^\circ\text{C}$

 NOTES: 1. Pulse test: pulse width 300 μ sec, duty cycle 2%.

 2. Measured with $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$.

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SOD1E1--SOD1E8
PACKAGE OUTLINE DIMENSIONS

SOLDERING FOOTPRINT


Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
SOD1E1--SOD1E8	SOD-123FL	2500/Tape&Reel

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SOD1E1--SOD1E8

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

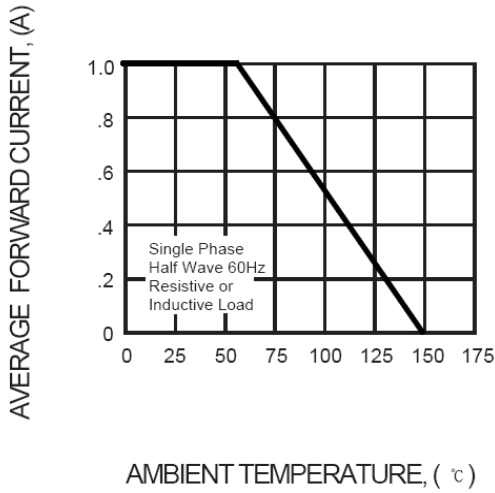


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

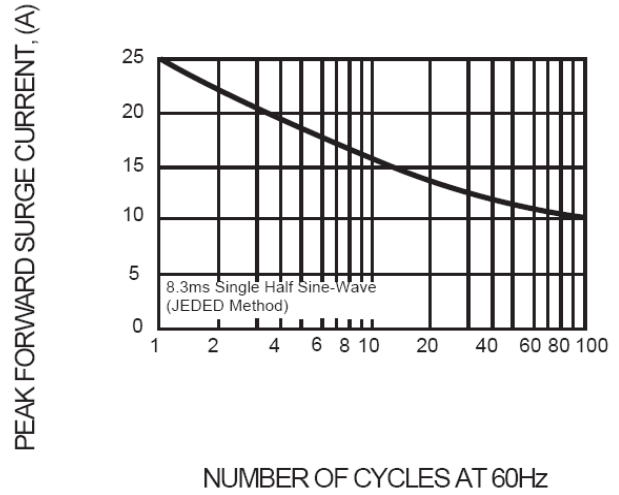


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

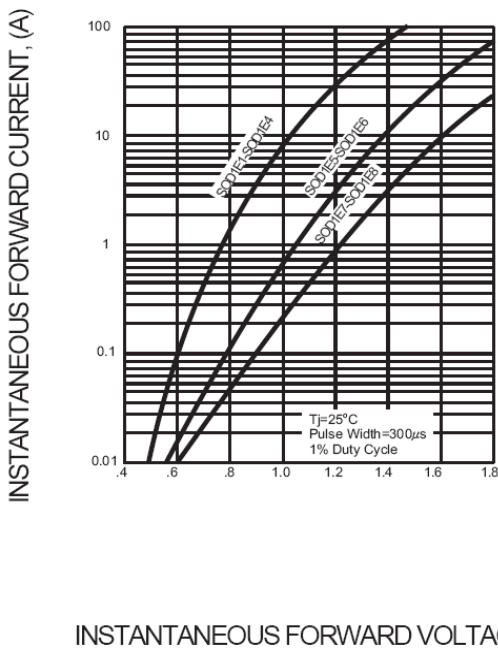


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

