

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


MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Characteristic	Symbol	SOD1E1	SOD1E2	SOD1E3	SOD1E4	SOD1E5	SOD1E6	SOD1E7	SOD1E8	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	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum average forward rectified current T _A =65°C	I _(AV)	1.0								A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load TL=25°C	I _{FSM}	30								A

Thermal Characteristics

Characteristic	Symbol	SOD1E1	SOD1E2	SOD1E3	SOD1E4	SOD1E5	SOD1E6	SOD1E7	SOD1E8	UNITS
Typical Thermal Resistance	R _{θJA}	200								°C/W
	R _{θJC}	30								
Typical capacitance	C _J	7								PF
Operating temperature range	T _J	- 55 --- + 150								°C
Storage temperature range	T _{STG}	- 55 --- + 150								°C

Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Characteristic	Symbol	SOD1E1	SOD1E2	SOD1E3	SOD1E4	SOD1E5	SOD1E6	SOD1E7	SOD1E8	UNITS	
Maximum forward voltage at 1.0A (Note 1)	V _F	0.95			1.25		1.7			V	
Maximum DC reverse current @T _A =25°C at rated DC blocking voltage @T _A =125°C	I _R	5.0									μA
		100									
Maximum reverse recovery time (NOTE 2)	t _{rr}	35									ns

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

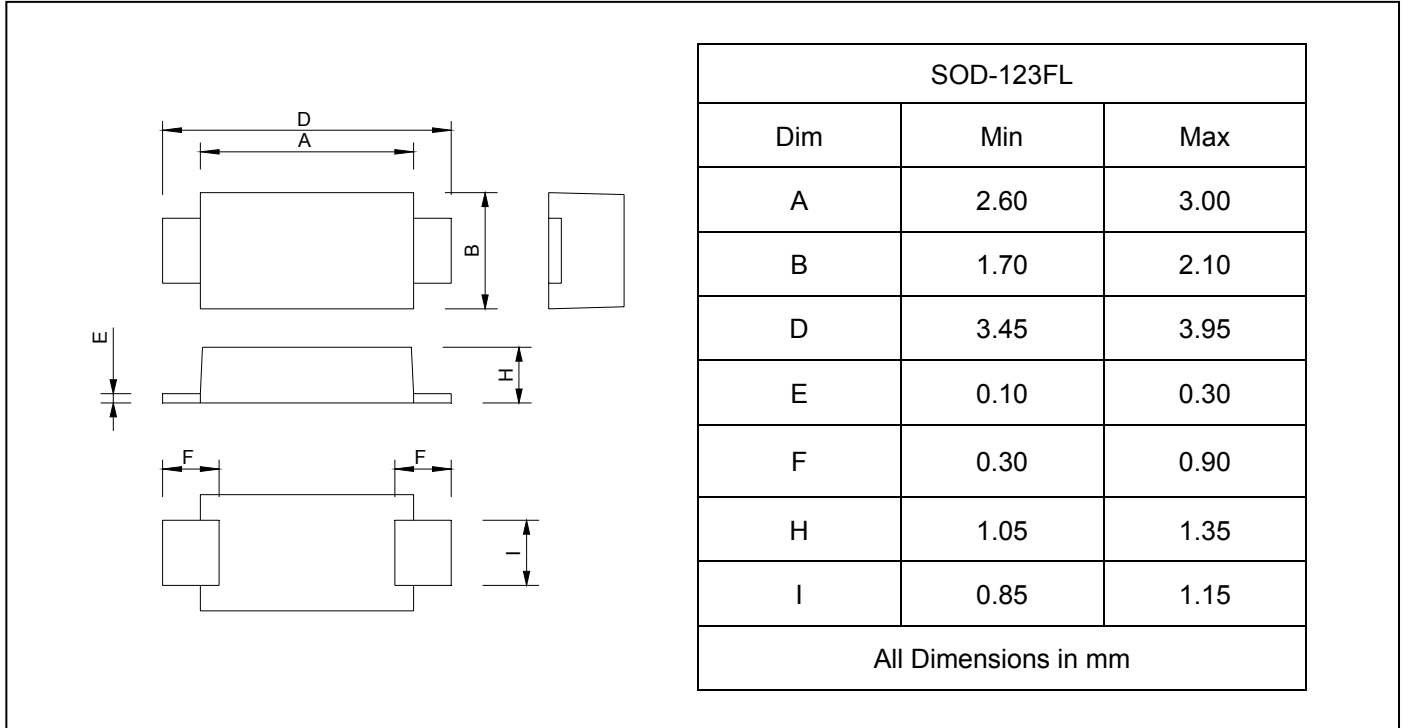
 2. Measured with I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.



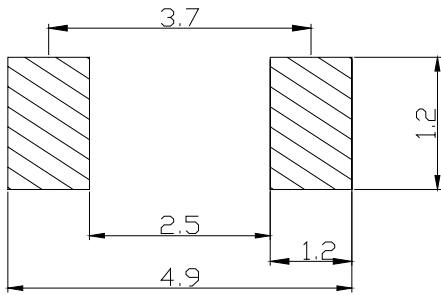
SURFACE MOUNT RECTIFIERS

SOD1E1--SOD1E8

PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
SOD1E1--SOD1E8	SOD-123FL	10000/Tape&Reel



SURFACE MOUNT RECTIFIERS

SOD1E1--SOD1E8

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

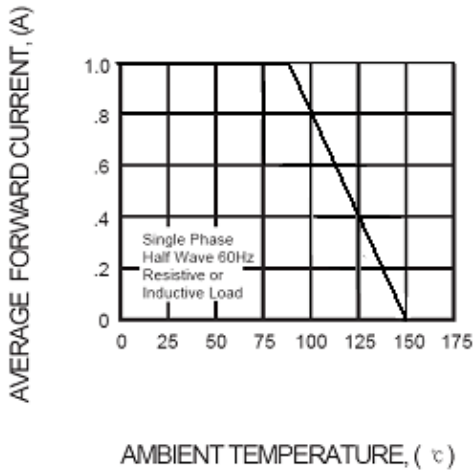


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

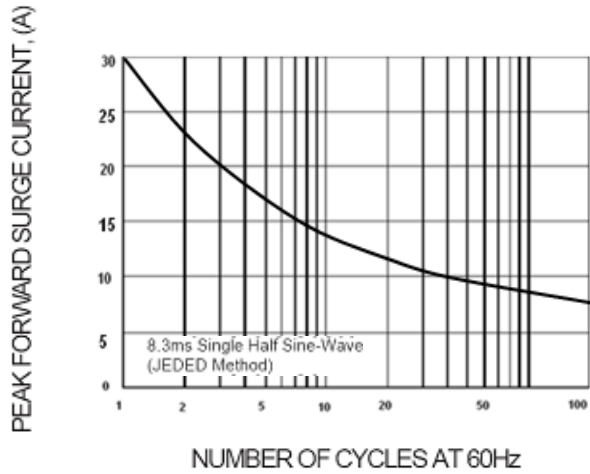


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

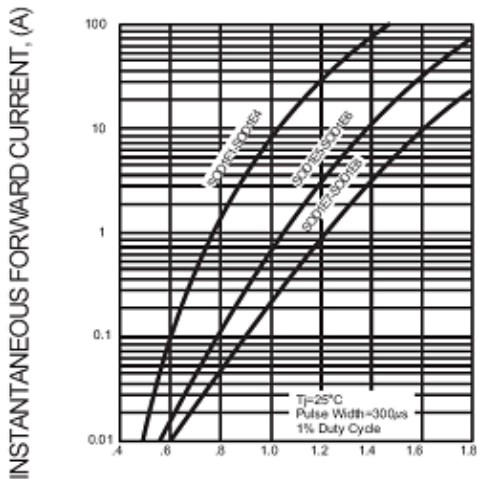


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

