

## FEATURES

- Plastic package has Underwriters Laboratory
- Flammability classification 94V-0 Utilizing Flame
- Retardant Epoxy Molding Compound
- For surface mount applications
- Low leakage current.

## Mechanical Data

Case: JEDEC SOD-123FL, molded plastic over passivated chip

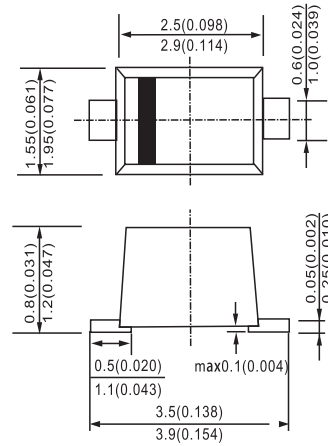
Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.006 ounces, 0.02 gram

Mounting position: Any

## SOD-123FL



Dimensions in millimeters

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

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

		SOD 4001	SOD 4002	SOD 4003	SOD 4004	SOD 4005	SOD 4006	SOD 4007	UNITS
Device marking code		D1	D2	D3	D4	D5	D6	D7	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_A=75$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	25							A
Maximum instantaneous forward voltage @ $I_{FM}=1.0A$ (Note 1)	$V_F$	1.1							V
Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	$I_R$	50							$\mu A$
Typical junction capacitance measured at $f=1MHz, V_R=4.0V$	$C_J$	15							p F
Typical thermal resistance junction to lead	$R_{\theta JL}$	20							/W
Operating temperature range	$T_j$	- 55 --- + 150							
Storage temperature range	$T_{STG}$	- 55 --- + 150							

NOTE1. Pulse test: pulse width 300 $\mu$ sec, duty cycle 2%.

## RATINGS AND CHARACTERISTIC CURVES SOD4001 THRU SOD4007

FIG.1-TYPICAL FORWARD

CHARACTERISTICS

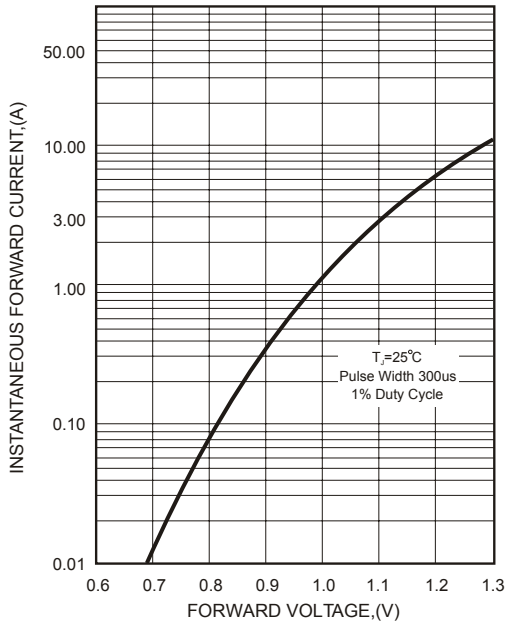


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

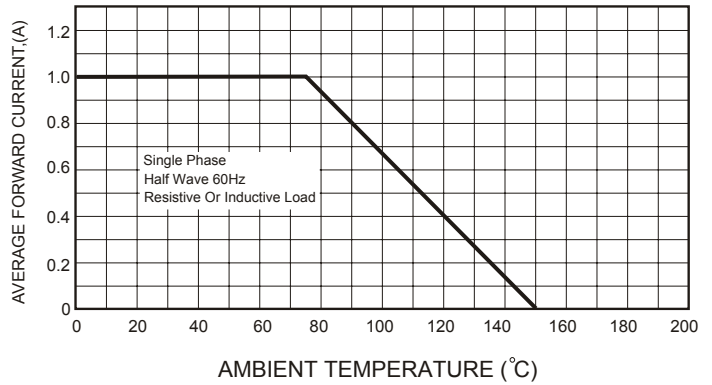


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

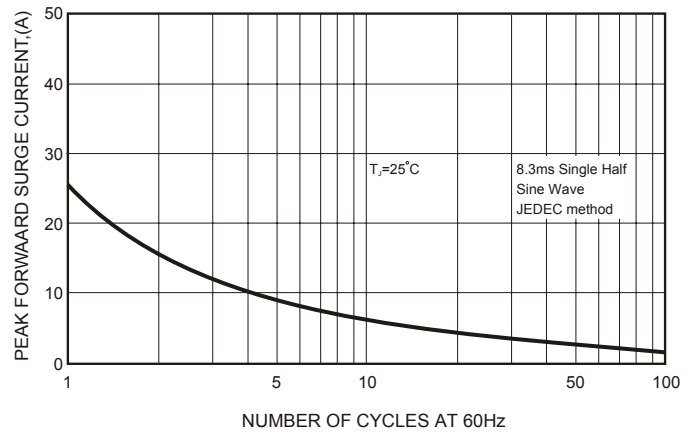


FIG.3 - TYPICAL REVERSE

CHARACTERISTICS

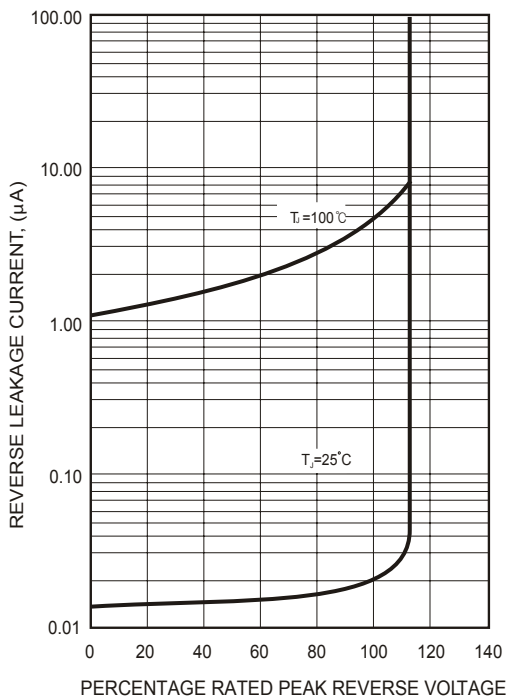


FIG.5-TYPICAL JUNCTION CAPACITANCE

