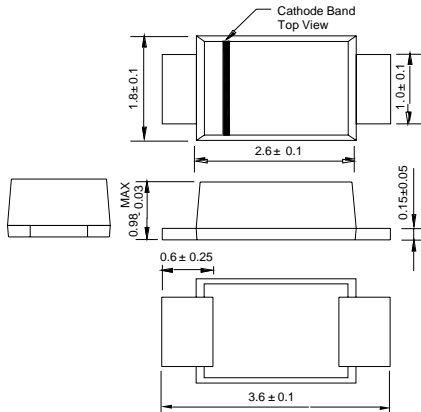


### SOD-123FL



Dimensions in millimeters

### FEATURES

- ◆ Glass passivated device
- ◆ Ideal for surface mounted applications
- ◆ Low reverse leakage
- ◆ Metallurgically bonded construction
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** SOD-123FL molded plastic body over passivated chip  
**Terminals:** Solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.0007 ounce, 0.02 grams

### 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 current derate by 20%.

	SYMBOLS	A1	A2	A3	A4	A5	A6	A7	UNITS
Maximum repetitive 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 at $T_L=100^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	25.0							A
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	10.0 50.0							$\mu\text{A}$
Typical junction capacitance (NOTE 2)	$C_J$	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	95							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

- Note:** 1. Averaged over any 20ms period.  
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 3. PCB mounted on 0.2\*0.2" (5.0\*5.0mm) copper pad area.

AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE

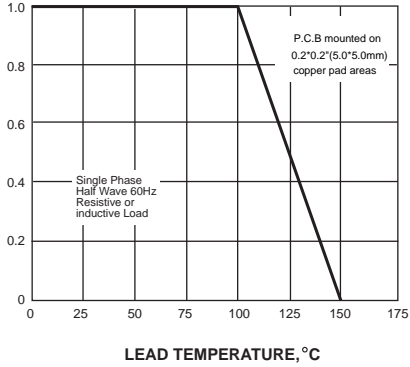


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

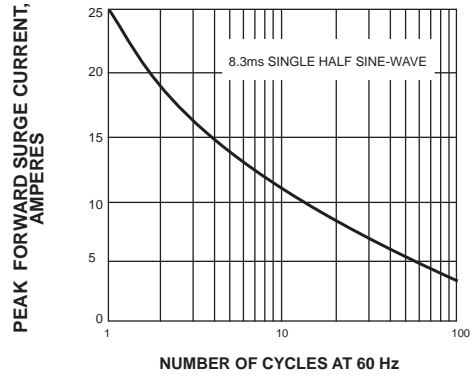


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

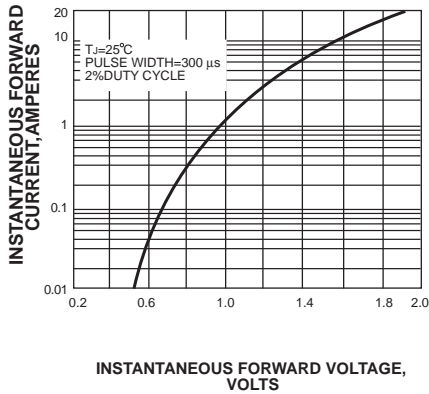


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

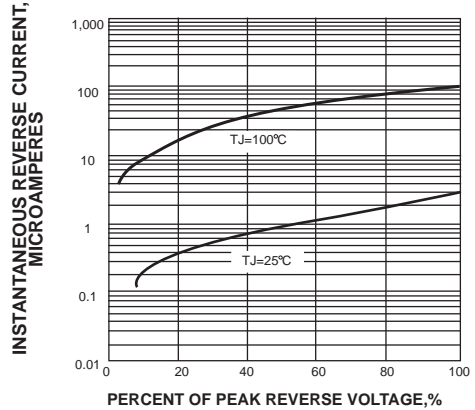
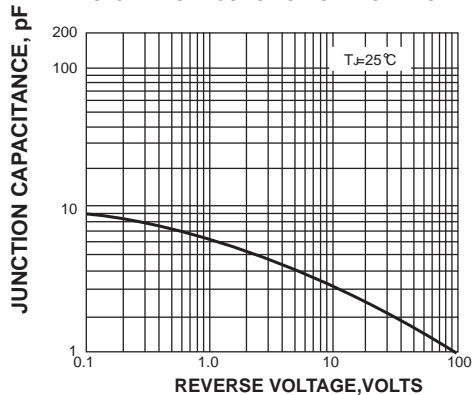
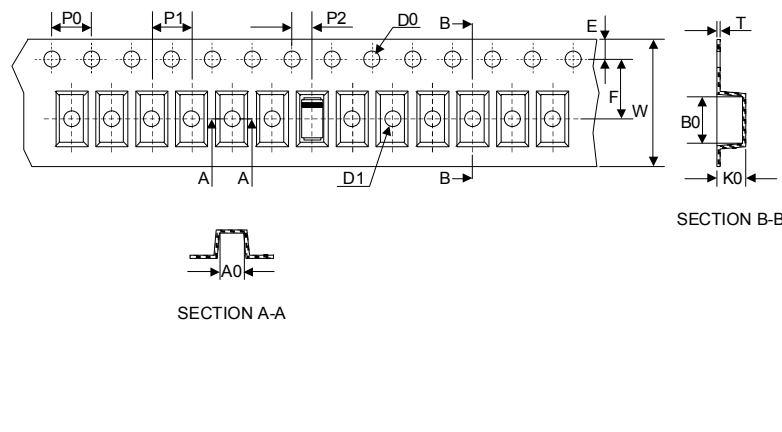
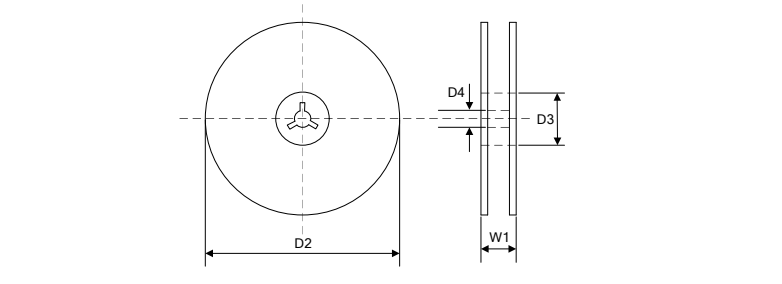
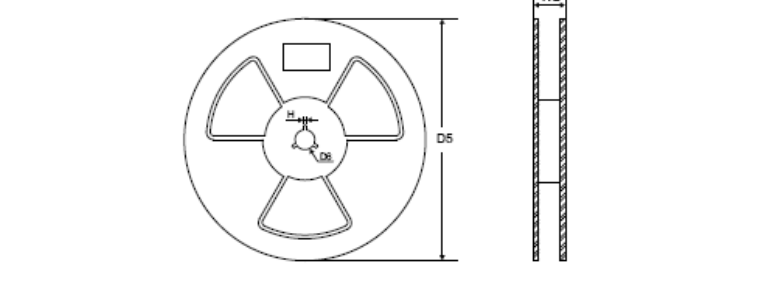


FIG. 5-TYPICAL JUNCTION CAPACITANCE



Packaging

Tape	Symbol      Dimension (mm)	
	W	12.00±0.20
	P0	4.00±0.10
	P1	4.00±0.10
	P2	2.00±0.10
	D0	Φ1.5±0.10
	D1	Φ1.5±0.10
	E	1.75±0.10
	F	5.50±0.05
	A0	2.79±0.10
	B0	5.33±0.10
	K0	2.55±0.15
	T	0.25±0.05
	7" Reel	D2
	D3	Φ50.0Min.
	D4	Φ13.0±0.5
	W1	16.0±2.0
	Quantity: 3000PCS	
13" Reel	D5	Φ330.0±2.0
	D6	Φ13.5±0.5
	H	2.5±1.0
	W2	16.0±2.0
	Quantity: 10000PCS	