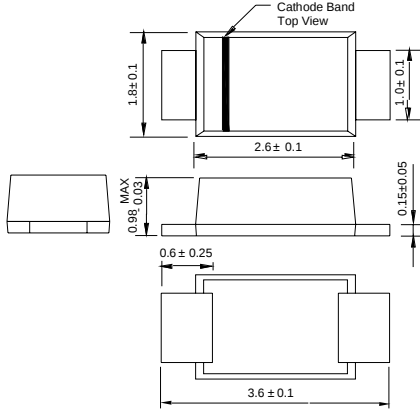


SOD-123FL



Dimensions in millimeters

FEATURES

- ◆ Glass passivated device
- ◆ Ideal for surface mouted 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: JEDEC SOD-123FL molded plastic body over passivated chip
Terminals: Plated axial leads, 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

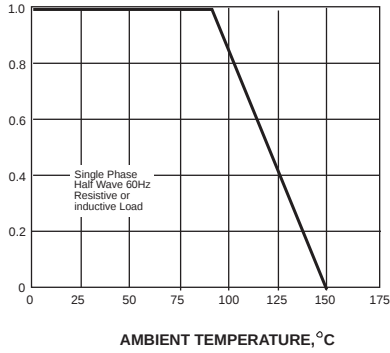
Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

	SYMBOLS	F1	F2	F3	F4	F5	F6	F7	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at TA=65°C (NOTE 1)	I _(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) TL=25°C	I _{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							Volts
Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=125°C	I _R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 2)	trr	150				250	500		ns
Typical junction capacitance (NOTE 3)	C _J	15							pF
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150							°C

- Note:** 1.Averaged over any 20ms period.
 2.Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
 3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

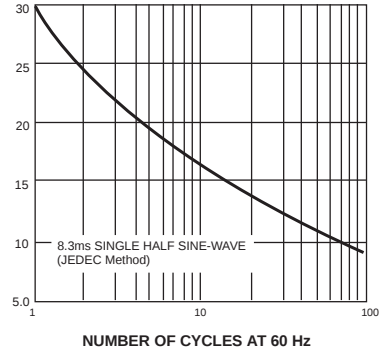
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



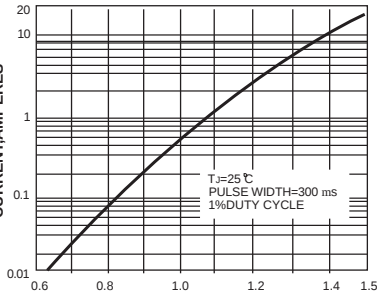
PEAK FORWARD SURGE CURRENT,
AMPERES

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



INSTANTANEOUS FORWARD
CURRENT,AMPERES

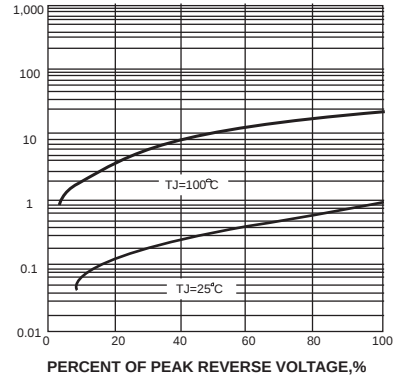
FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLEAGE,
VOLTS

INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

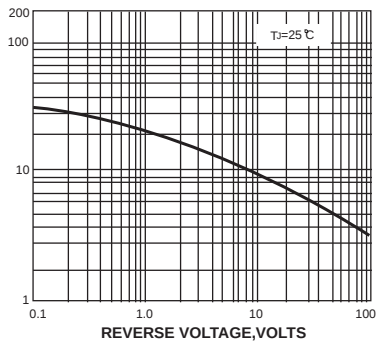
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENT OF PEAK REVERSE VOLTAGE, %

JUNCTION CAPACITANCE, pF

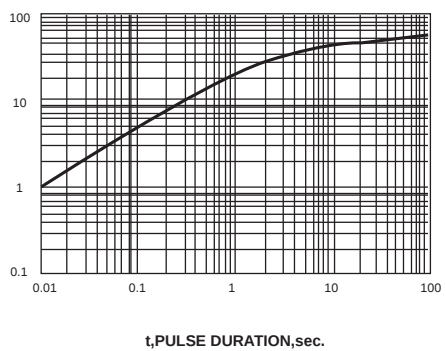
FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,VOLTS

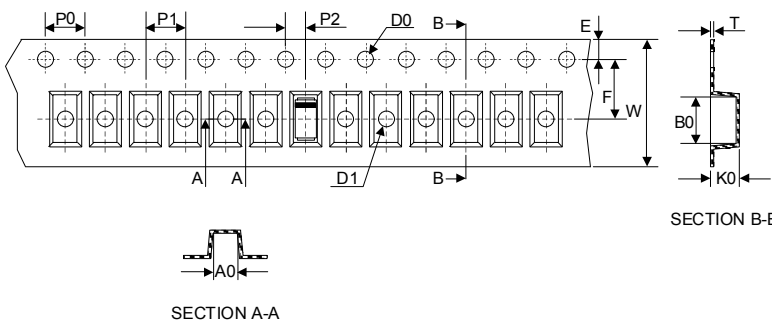
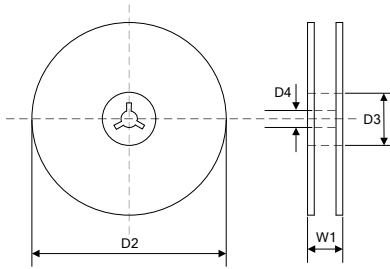
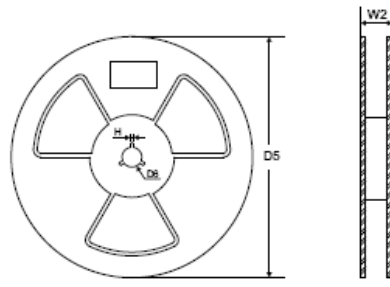
TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.

Packaging

Tape 	<table> <tr> <th>Symbol</th><th>Dimension (mm)</th></tr> <tr><td>W</td><td>12.00±0.20</td></tr> <tr><td>P0</td><td>4.00±0.10</td></tr> <tr><td>P1</td><td>4.00±0.10</td></tr> <tr><td>P2</td><td>2.00±0.10</td></tr> <tr><td>D0</td><td>Φ1.5±0.10</td></tr> <tr><td>D1</td><td>Φ1.5±0.10</td></tr> <tr><td>E</td><td>1.75±0.10</td></tr> <tr><td>F</td><td>5.50±0.05</td></tr> <tr><td>A0</td><td>2.79±0.10</td></tr> <tr><td>B0</td><td>5.33±0.10</td></tr> <tr><td>K0</td><td>2.55±0.15</td></tr> <tr><td>T</td><td>0.25±0.05</td></tr> </table>	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
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K0	2.55±0.15																										
T	0.25±0.05																										
7" Reel 	<table> <tr><td>D2</td><td>Φ178.0±2.0</td></tr> <tr><td>D3</td><td>Φ50.0Min.</td></tr> <tr><td>D4</td><td>Φ13.0±0.5</td></tr> <tr><td>W1</td><td>16.0±2.0</td></tr> <tr><td colspan="2">Quantity: 3000PCS</td></tr> </table>	D2	Φ178.0±2.0	D3	Φ50.0Min.	D4	Φ13.0±0.5	W1	16.0±2.0	Quantity: 3000PCS																	
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D4	Φ13.0±0.5																										
W1	16.0±2.0																										
Quantity: 3000PCS																											
13" Reel 	<table> <tr><td>D5</td><td>Φ330.0±2.0</td></tr> <tr><td>D6</td><td>Φ13.5±0.5</td></tr> <tr><td>H</td><td>2.5±1.0</td></tr> <tr><td>W2</td><td>16.0±2.0</td></tr> <tr><td colspan="2">Quantity: 10000PCS</td></tr> </table>	D5	Φ330.0±2.0	D6	Φ13.5±0.5	H	2.5±1.0	W2	16.0±2.0	Quantity: 10000PCS																	
D5	Φ330.0±2.0																										
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H	2.5±1.0																										
W2	16.0±2.0																										
Quantity: 10000PCS																											