



A16/H61

VOLTAGE RANGE

1600 Volts

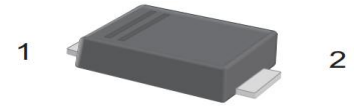
CURRENT

1.0 Ampere

Features



- Glass passivated chip
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering: 260°C/10S at terminals
- Component in accordance to ROHS 2002/95/1 and WEEE 2002/96/EC



Mechanical Data

- Case: JEDEC SOD-123FL mold plastic Body over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denote cathode band
- Weight: 0.00063ounce, 0.018grams

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%

TYPE NUMBER	SYMBOLS	A16/H61	UNITS
Device marking code			
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	Volts
Maximum RMS Voltage	V_{RMS}	1120	Volts
Maximum DC Blocking Voltage	V_{DC}	1600	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0	Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30	Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5.0	μA
	$T_A = 125^\circ\text{C}$	50	
Typical Junction Capacitance ^(NOTE 1)	C_J	15	pF
Typical Thermal Resistance ^(NOTE 2)	$R_{\theta JA}$	60	$^\circ\text{C}/\text{W}$
Operating Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 1.8×1.8mm² copper pad areas.



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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

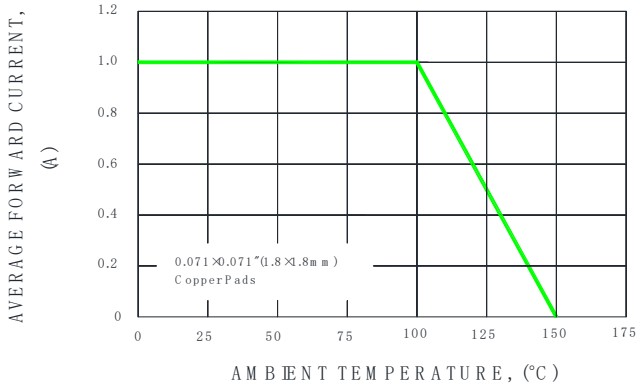


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

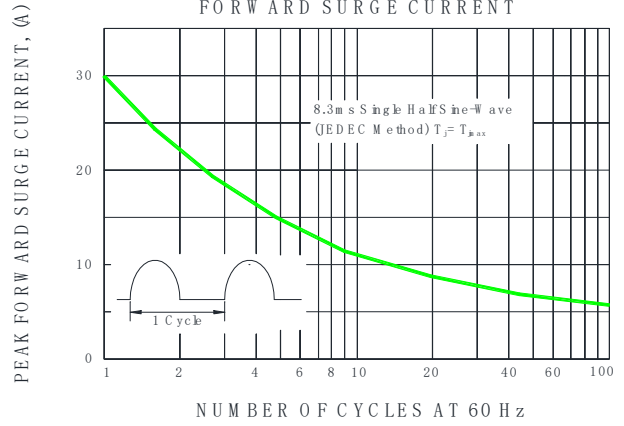


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

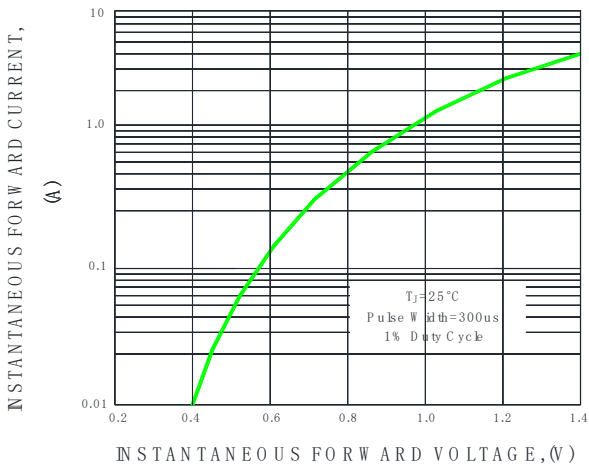


FIG.4-TYPICAL REVERSE CHARACTERISTICS

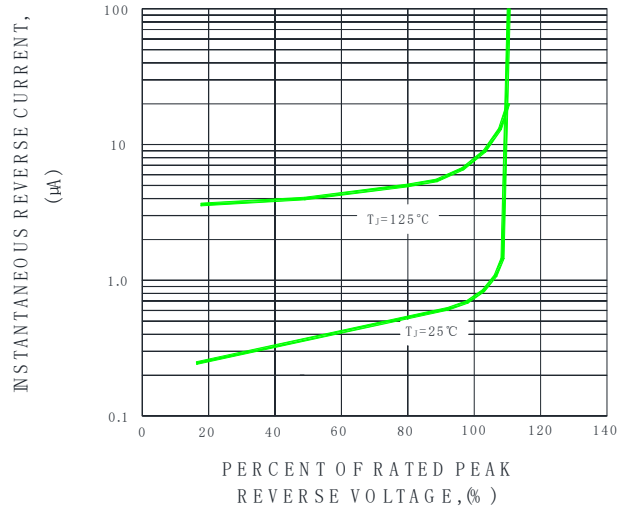
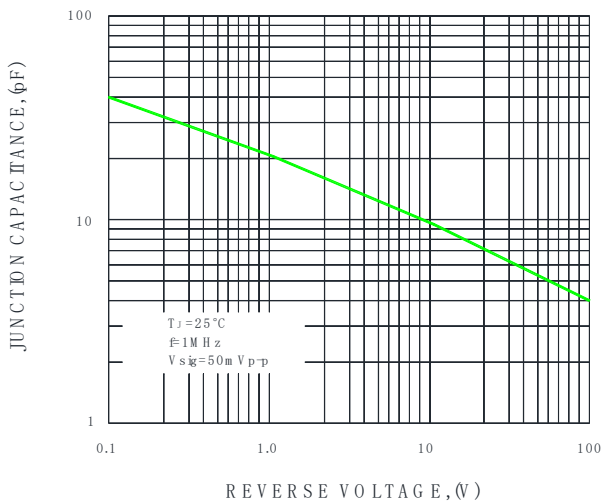


FIG.5-TYPICAL JUNCTION CAPACITANCE

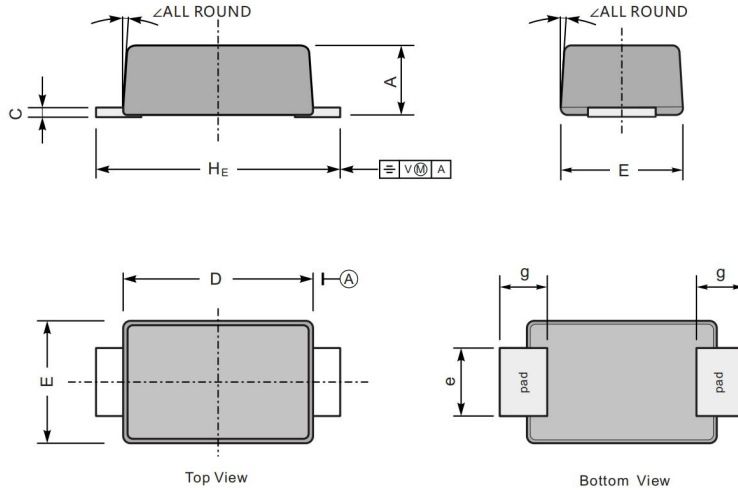




Package Outline Dimensions in inches (millimeters)

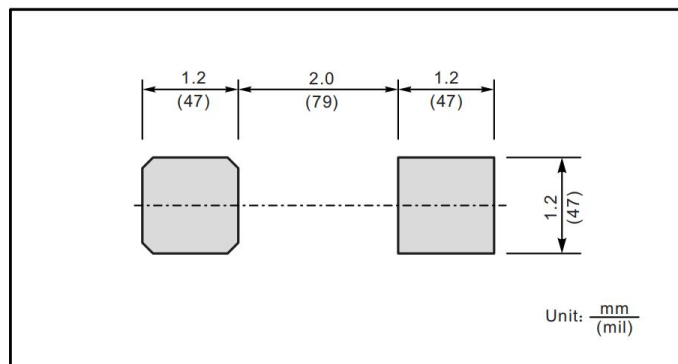
SOD-123FL

Unit: mm



UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

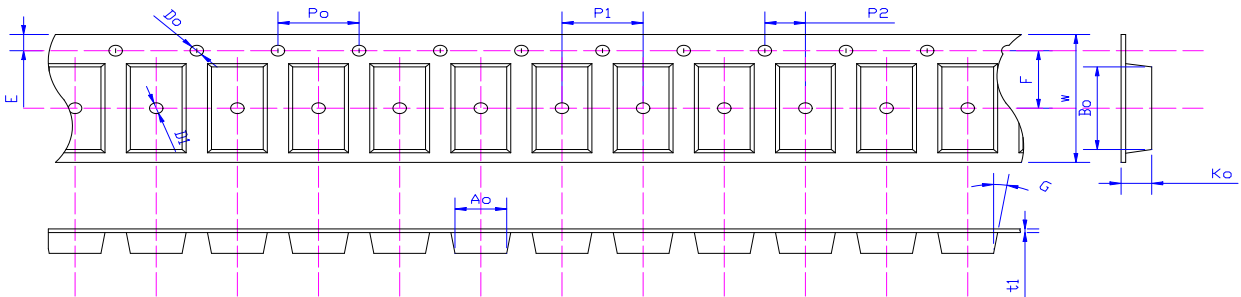
The recommended mounting pad size





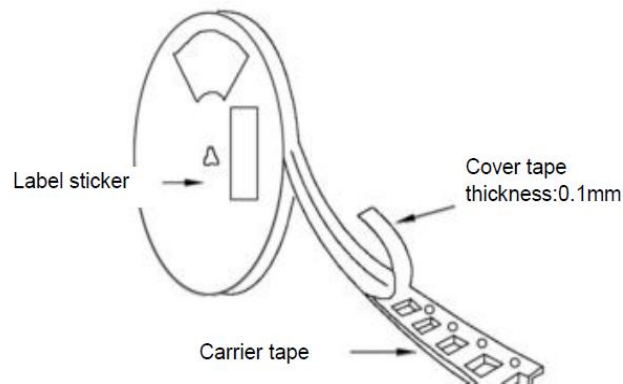
Packing Requirments

- PS black anti-static carrier tape packing



Specifications	Ao	Bo	Ko	Po	W	t1
SOD123FL	2.12±0.10	3.95±0.10	1.35±0.10	4.00±0.1	8.0±0.10	0.20±0.02

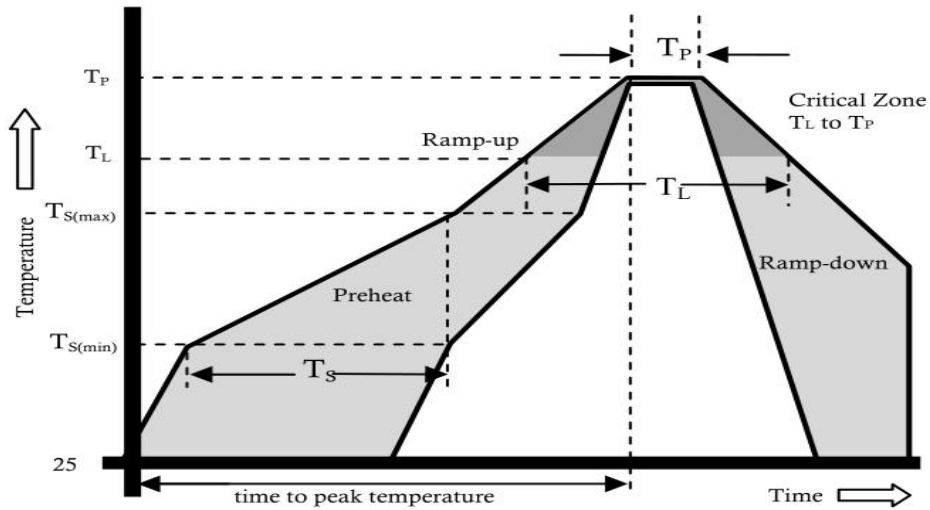
- 7 "antistatic plastic reel



DEVICE TYPE	07" Reel			
	Q'TY/REEL(pcs)	REEL/BOX	BOX/CARTOON	Q'TY/CARTON(pcs)
SOD123FL	3000	4	16	192000



Reflow Profile



Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time(Min to Max)	60-180 secs.
Average ramp up rate(Liquidus Temp(T _L) to peak)		3°C/sec. Max.
T _S (max) to T _L - Ramp-up Rate		3°C/sec. Max.
Reflow	Temperature (T _L)(Liquidus)	+217°C
	Temperature (T _L)	60-150 secs.
Peak Temp (T _p)		+(260+0/-5)°C
Time within 5°C of actual Peak Temp (T _p)		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T _p)		8 min. Max.
Do not exceed		+260°C



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VOLTAGE RANGE	1600 Volts
CURRENT	1.0 Ampere

Disclaimer

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