Lastinght

BAT46W

SURFACE MOUNT SCHOTTKY BARRIER DIODE

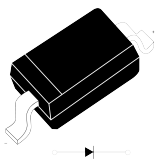
PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Features

- High breakdown voltage
- Low forward voltage
- Surface mount device

SOD-123



RoHS COMPLIANT

Pb Pb-Free

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Forward Current	I_F	150	mA
Repetitive Peak Forward Current (at tp < 1 s)	I_{FRM}	350	mA
Surge Forward Current (at tp < 10 ms)	I_{FSM}	750	mA
Power Dissipation	P_{tot}	200	mW
Thermal Resistance Junction Ambient	R_{thJA}	420	°C/W
Operating Temperature Range	T_J	- 55 to + 125	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at I_R = 100 µA	$V_{(BR)R}$	100	-	-	V
Forward Voltage at I_F = 0.1 mA at I_F = 10 mA at I_F = 250 mA	V_F	- -	- - -	0.25 0.45 1	V
Reverse Current at V_R = 1.5 V at V_R = 10 V at V_R = 50 V at V_R = 75 V at V_R = 1.5 V, T_j = 60 °C at V_R = 10 V, T_j = 60 °C at V_R = 50 V, T_j = 60 °C at V_R = 75 V, T_j = 60 °C	I_R	 - - - - - - - -	 - - - - - - - -	 0.5 0.8 2 5 5 7.5 15 20	µA
Total Capacitance at V_R = 0 V, f = 1 MHz at V_R = 1 V, f = 1 MHz	C_T	- -	20 12	- -	pF

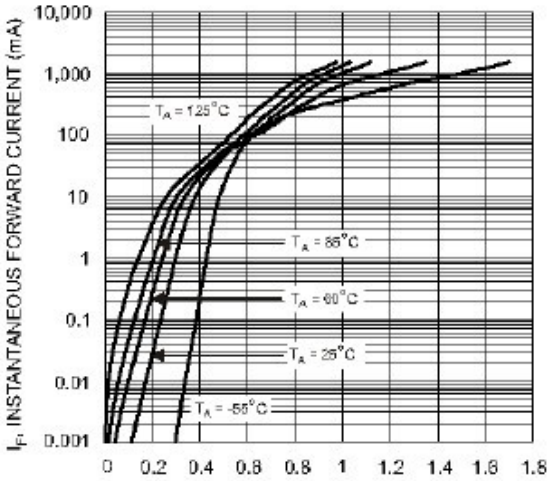


Fig. 1 Typical Forward Characteristics

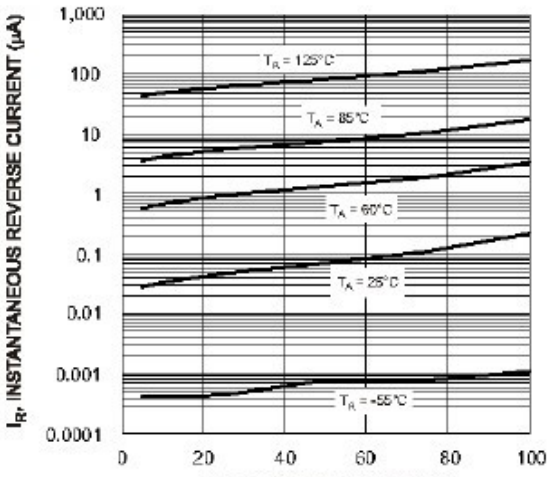


Fig. 2 Typical Reverse Characteristics

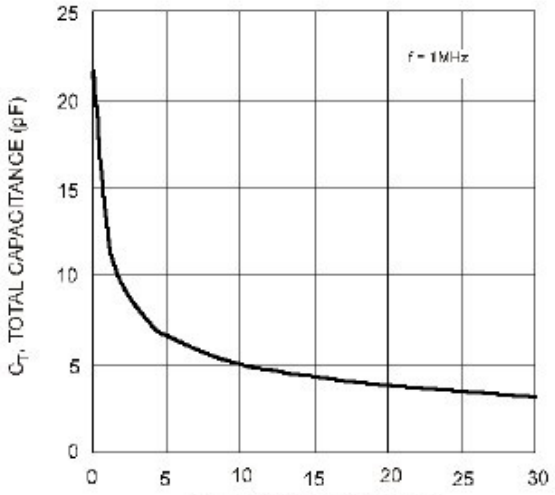


Fig. 3 Typical Total Capacitance

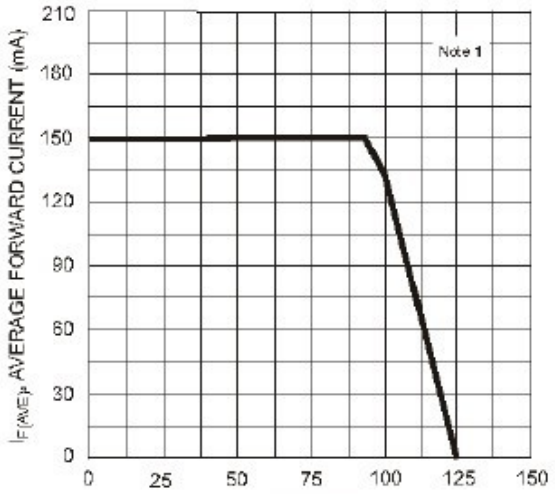


Fig. 4 Forward Current Derating

Note 1: Part mounted on FR-4 board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.

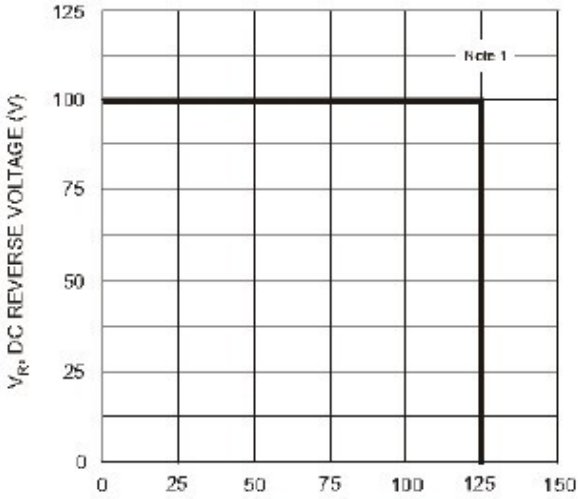
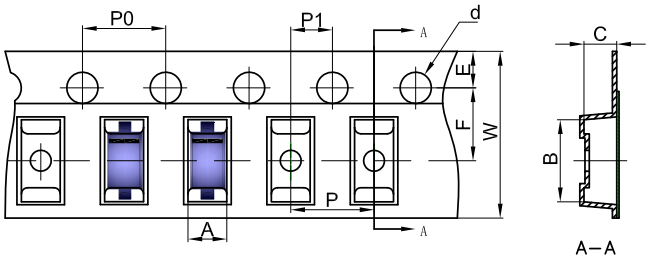


Fig. 5 Operating Temperature Derating

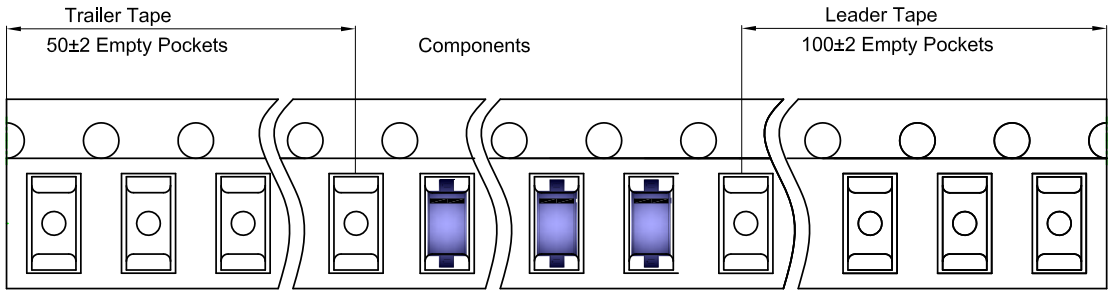
SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

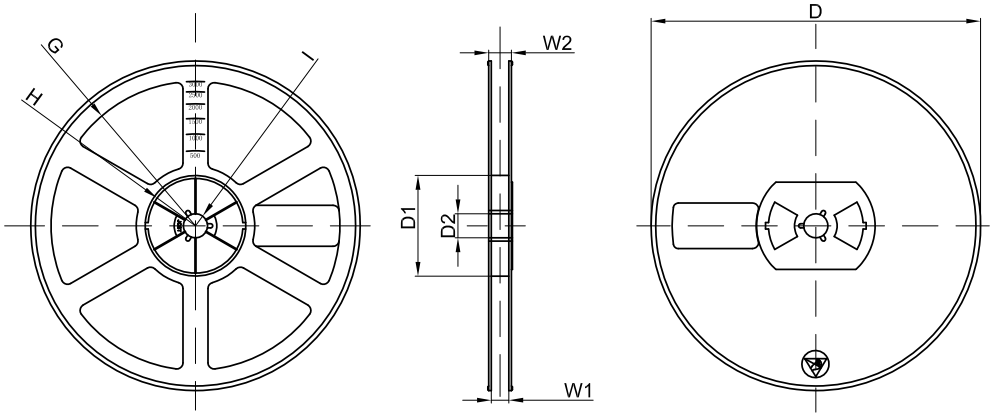


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer

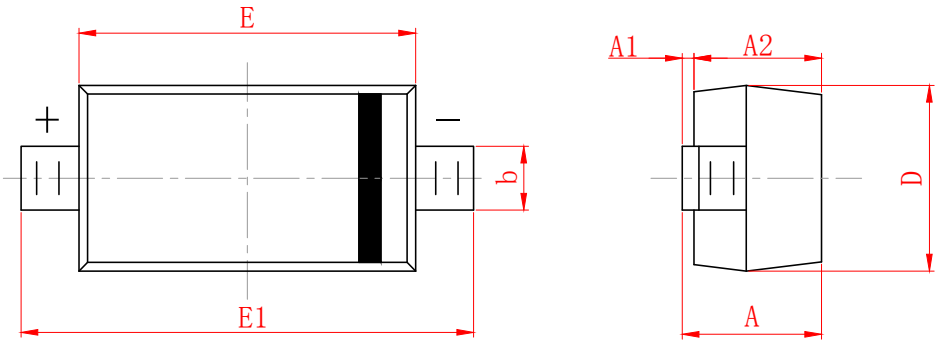


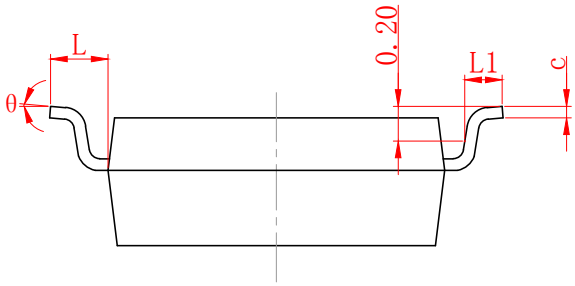
SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	





SYMBOL	MILLIMETER	
	MIN	MAX
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.008	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500(REF)	
L1	0.250	0.450
θ	0°	8°

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