

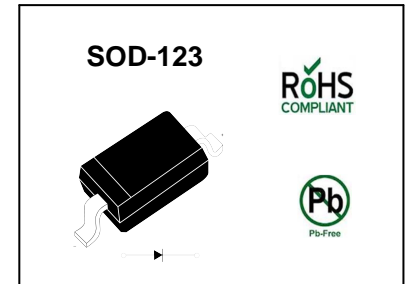
### Silicon Epitaxial Planar Switching Diode

#### Features

- SOD-123 package
- Fast switching
- These diodes are also available in other case style including the DO-35 case with the type designation 1N4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



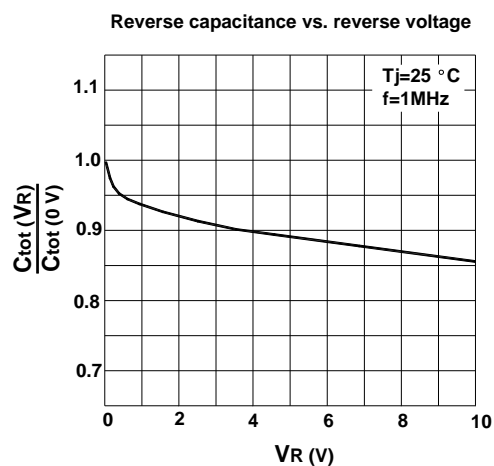
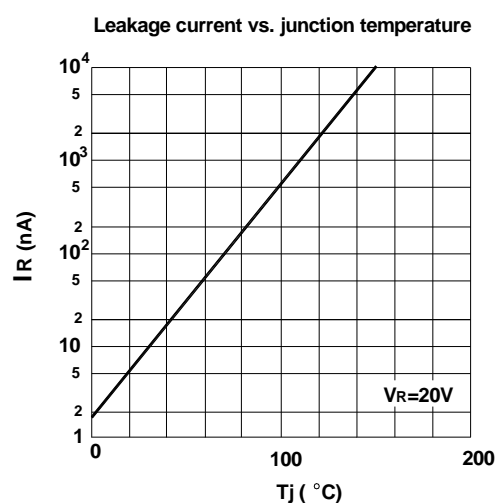
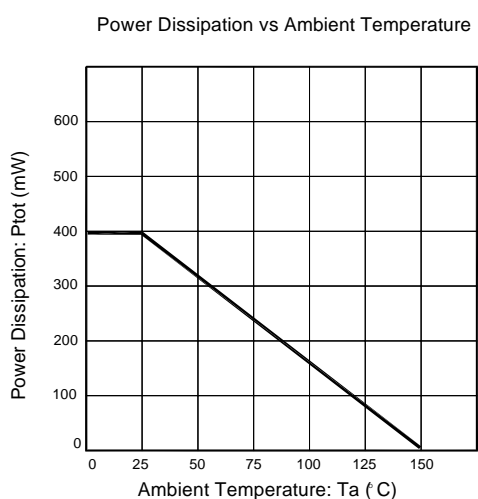
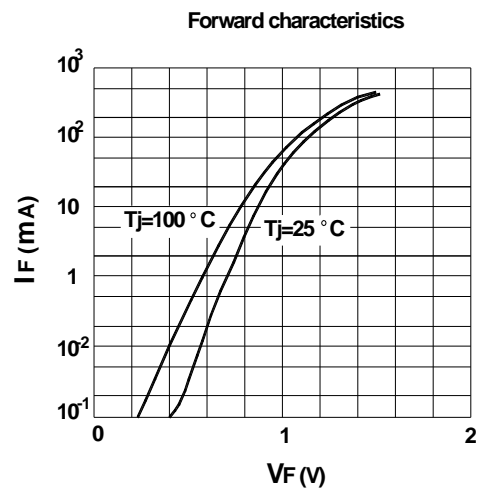
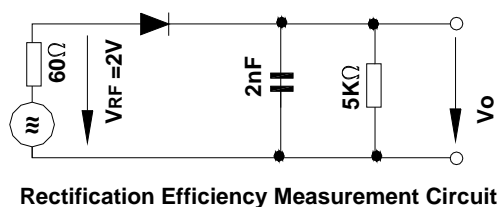
#### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	100	V
Reverse Voltage	$V_R$	75	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	0.5 1 4	A
Power Dissipation	$P_{tot}$	400	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	312	$^\circ\text{C/W}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

#### Characteristics at $T_a = 25^\circ\text{C}$

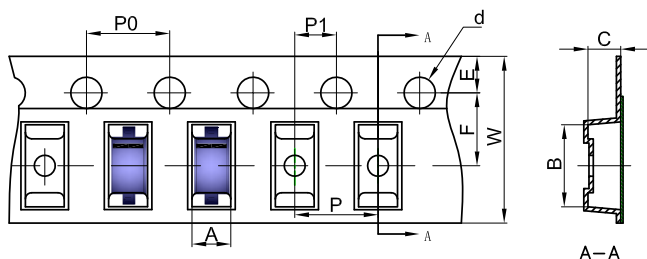
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage	$V_F$	-	0.715	V
at $I_F = 1\text{ mA}$			0.855	
at $I_F = 10\text{ mA}$			1	
at $I_F = 50\text{ mA}$			1.25	
Peak Reverse Current	$I_R$	-	1	$\mu\text{A}$
at $V_R = 75\text{ V}$			25	nA
at $V_R = 20\text{ V}$			50	$\mu\text{A}$
at $V_R = 75\text{ V}, T_J = 150^\circ\text{C}$			30	$\mu\text{A}$
Total Capacitance	$C_T$	-	2	pF
at $V_R = 0\text{ V}, f = 1\text{ MHz}$				
Reverse Recovery Time	$t_{rr}$	-	4	ns
at $I_{rr} = 0.1 \times I_R, I_F = I_R = 10\text{ mA}, R_L = 100\ \Omega$				

### Typical Characteristics



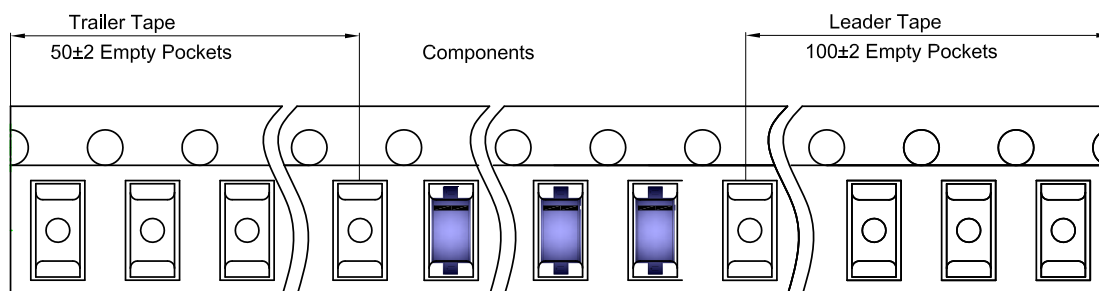
## SOD-123 Tape and Reel

### SOD-123 Embossed Carrier Tape

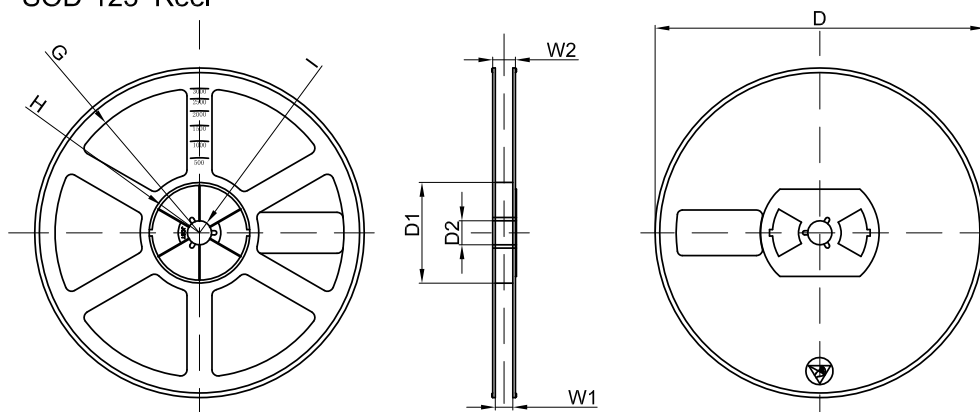


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

### SOD-123 Tape Leader and Trailer

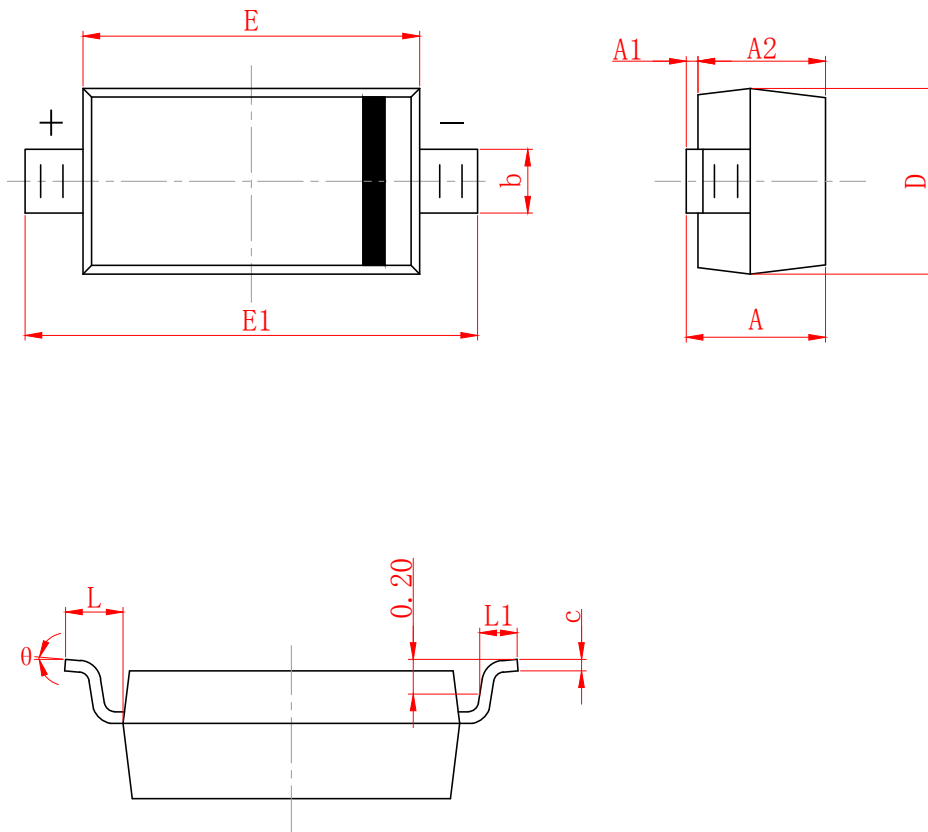


### SOD-123 Reel



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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