

### SCHOTTKY BARRIER DIODE

#### Features

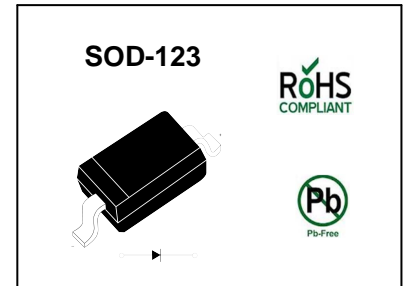
- Low forward voltage
- Guard ring protected
- Small plastic SMD SOD-323 package

#### Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	30	V
Forward Current	$I_F$	200	mA
Repetitive Peak Forward Current	$I_{FRM}$	300	mA
Peak Forward Surge Current ( $t_p = 10\text{ ms}$ )	$I_{FSM}$	600	mA
Power Dissipation	$P_D$	230	mW
Thermal Resistance from Junction Ambient	$R_{thJA}$	500	K/W
Junction Temperature	$T_J$	125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^{\circ}\text{C}$

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 0.1\text{ mA}$ at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 30\text{ mA}$ at $I_F = 100\text{ mA}$	$V_F$	240 320 400 500 800	mV
Reverse Current at $V_R = 25\text{ V}$	$I_R$	2	$\mu\text{A}$
Total Capacitance at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	10	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ , $V_R = 6\text{ V}$ , $I_R = 10\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	6	ns

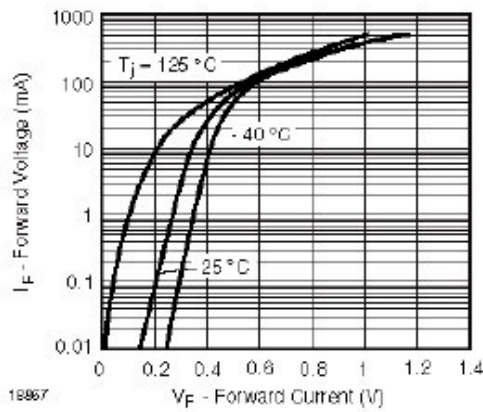


Figure 1. Typical Forward Voltage Forward Current at Various Temperatures

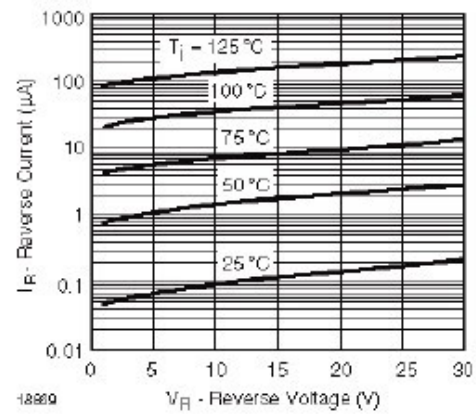


Figure 3. Typical Variation of Reverse Current at Various Temperatures

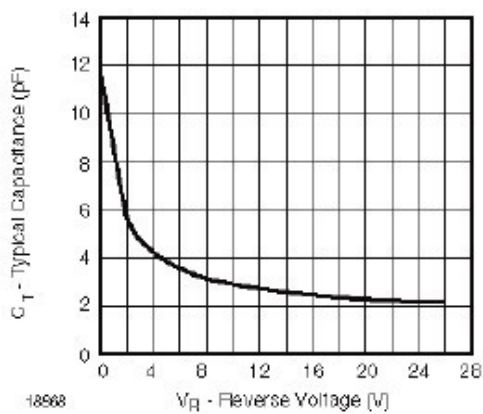
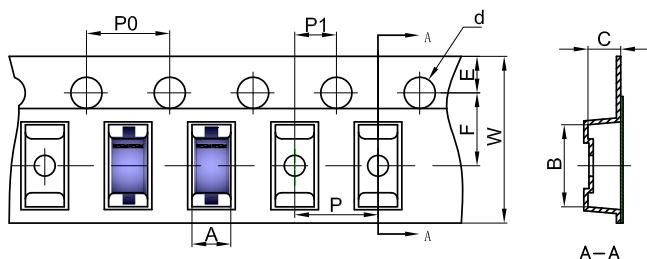


Figure 2. Typical Capacitance  $C_T$  vs. Reverse Applied Voltage  $V_R$

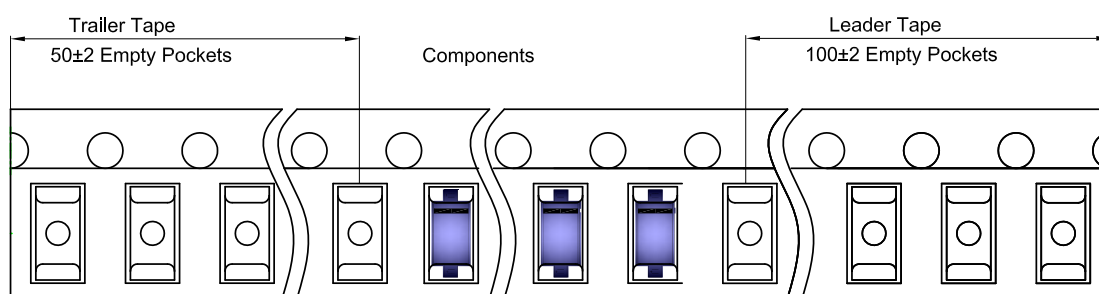
### SOD-123 Tape and Reel

#### SOD-123 Embossed Carrier Tape

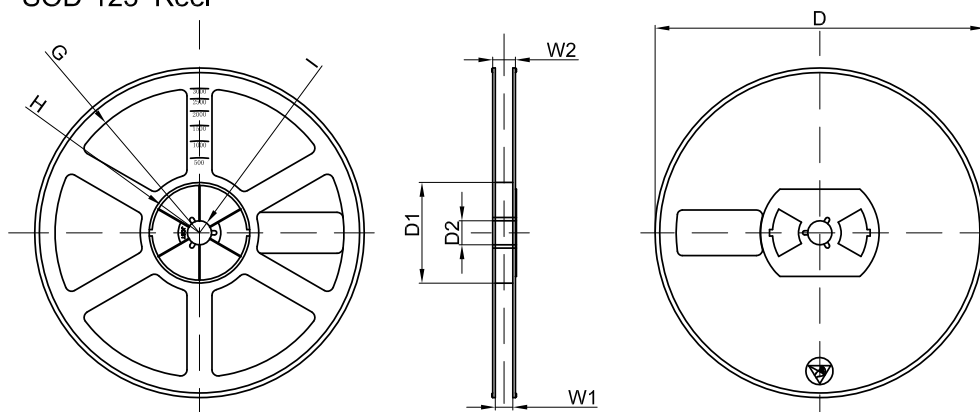


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

#### SOD-123 Tape Leader and Trailer

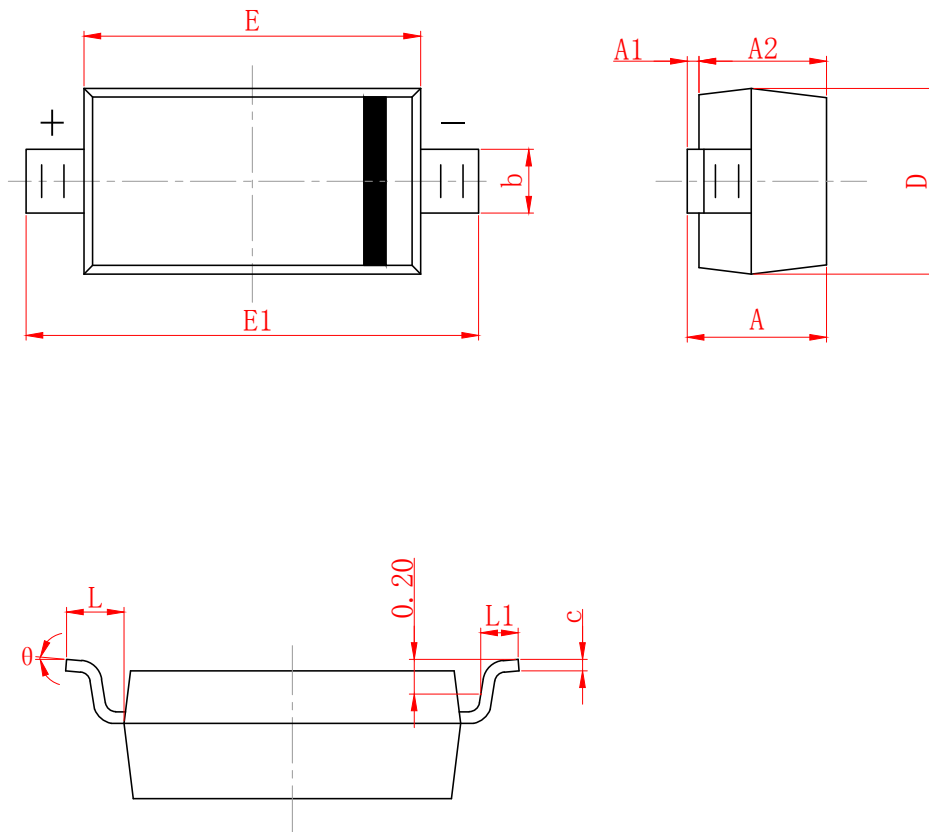


#### SOD-123 Reel



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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