

PINNING

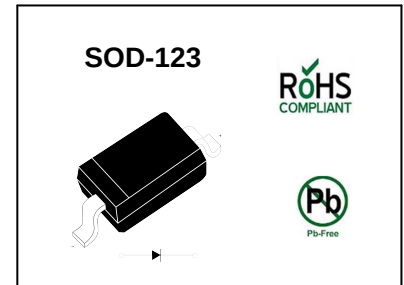
PIN	DESCRIPTION
1	Cathode
2	Anode

Schottky Barrier Diodes

These Schottky barrier diodes are designed for high current, handling capability, and low forward voltage performance.

Features

- Low Forward Voltage – 0.24 Volts (Typ) @ $I_F = 10 \text{ mAdc}$
- High Current Capability
- ESD Rating – Human Body Model: CLASS 3B
– Machine Model: C
- Pb-Free Packages are Available



MAXIMUM RATINGS ($T_J = 125^\circ\text{C}$ unless otherwise noted)

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	20	Vdc
Peak Reverse Voltage	V_{RM}	23	V
Forward Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_F	200 2.0	mW mW/ $^\circ\text{C}$
Forward Current (DC) Continuous	I_F	1	A
Forward Current $t = 8.3 \text{ ms}$ Half Sinewave	I_F	5	A
Junction Temperature	T_J	125 Max	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

SR0320W

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Total Capacitance ($V_R = 5.0\text{ V}$, $f = 1.0\text{ MHz}$)	C_T	–	25	29	pF
Reverse Leakage ($V_R = 15\text{ V}$)	I_R	–	10	50	μA_{dc}
Reverse Leakage ($V_R = 2.0\text{ V @ }85^\circ\text{C}$)	I_R	–	200	300	μA
Reverse Leakage ($V_R = 15.0\text{ V @ }85^\circ\text{C}$)	I_R	–	450	1000	μA
Forward Voltage ($I_F = 10\text{ mAdc}$)	V_F	–	0.24	0.27	Vdc
Forward Voltage ($I_F = 100\text{ mAdc}$)	V_F	–	0.30	0.35	Vdc
Forward Voltage ($I_F = 900\text{ mAdc}$)	V_F	–	0.45	0.50	Vdc

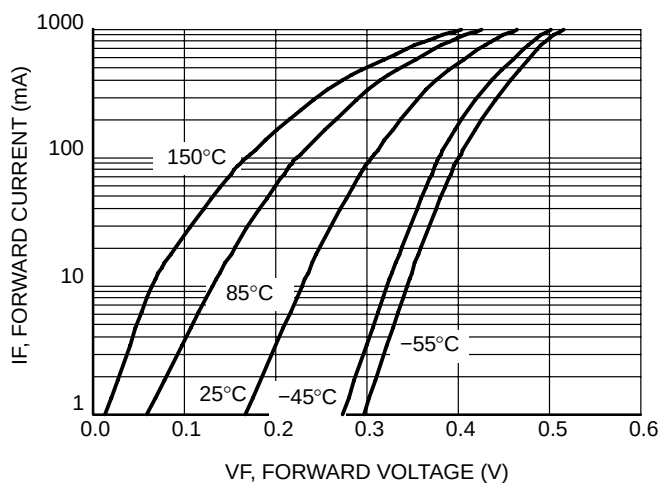


Figure 1. Forward Voltage

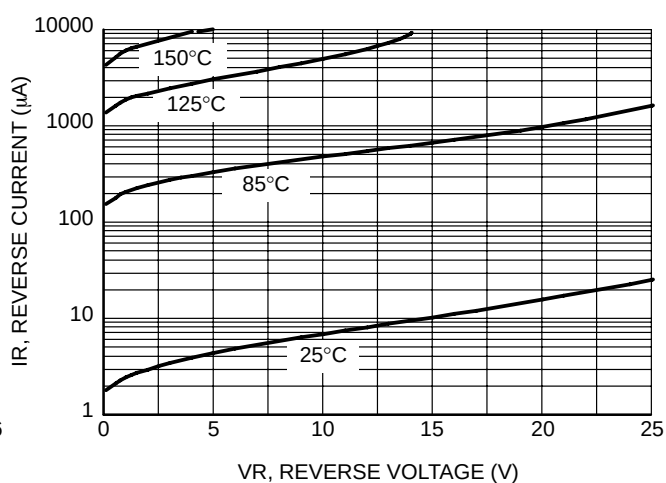


Figure 2. Leakage Current

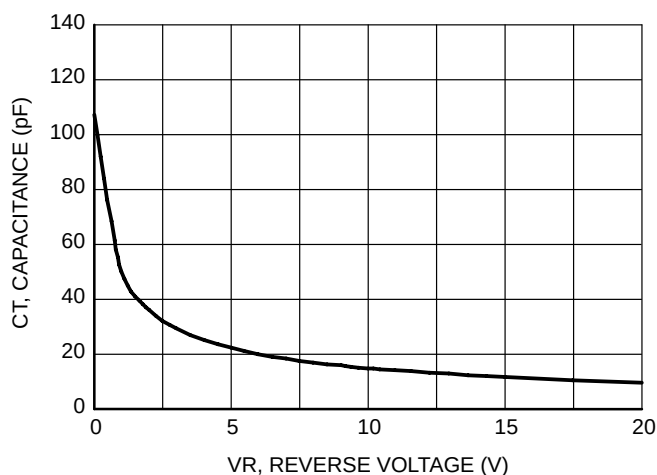
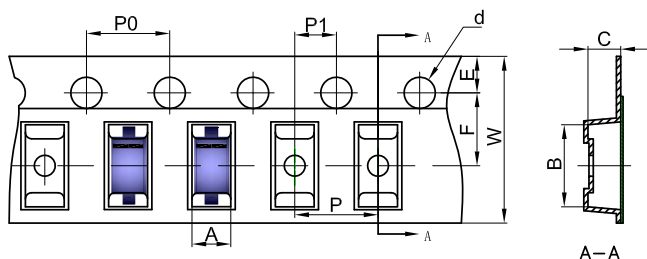


Figure 3. Total Capacitance

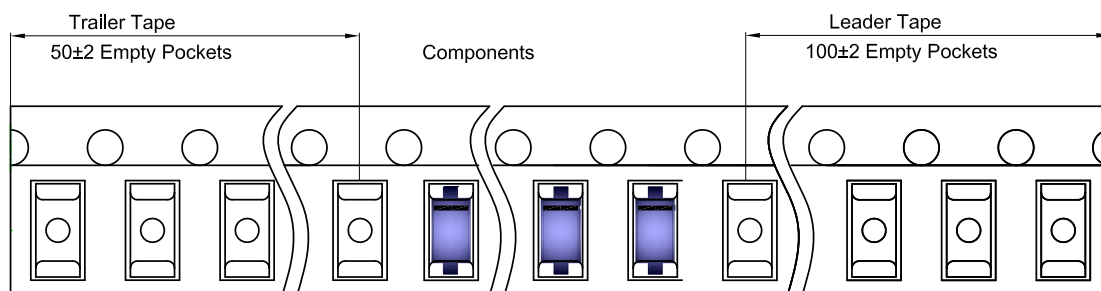
SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

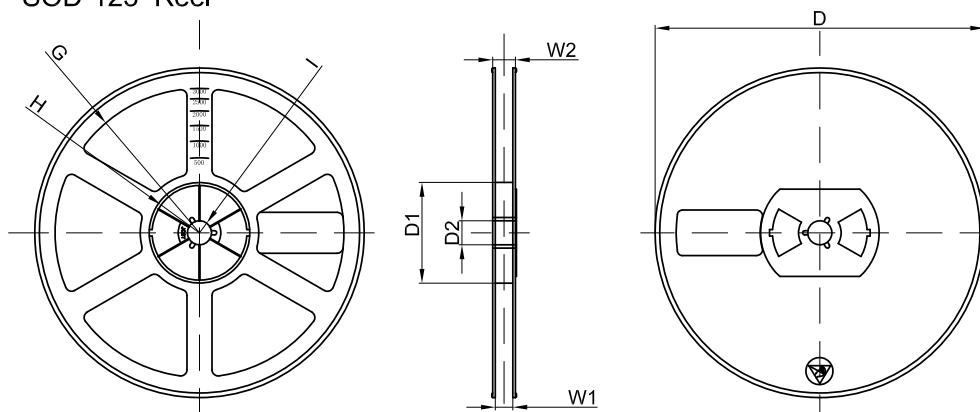


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer

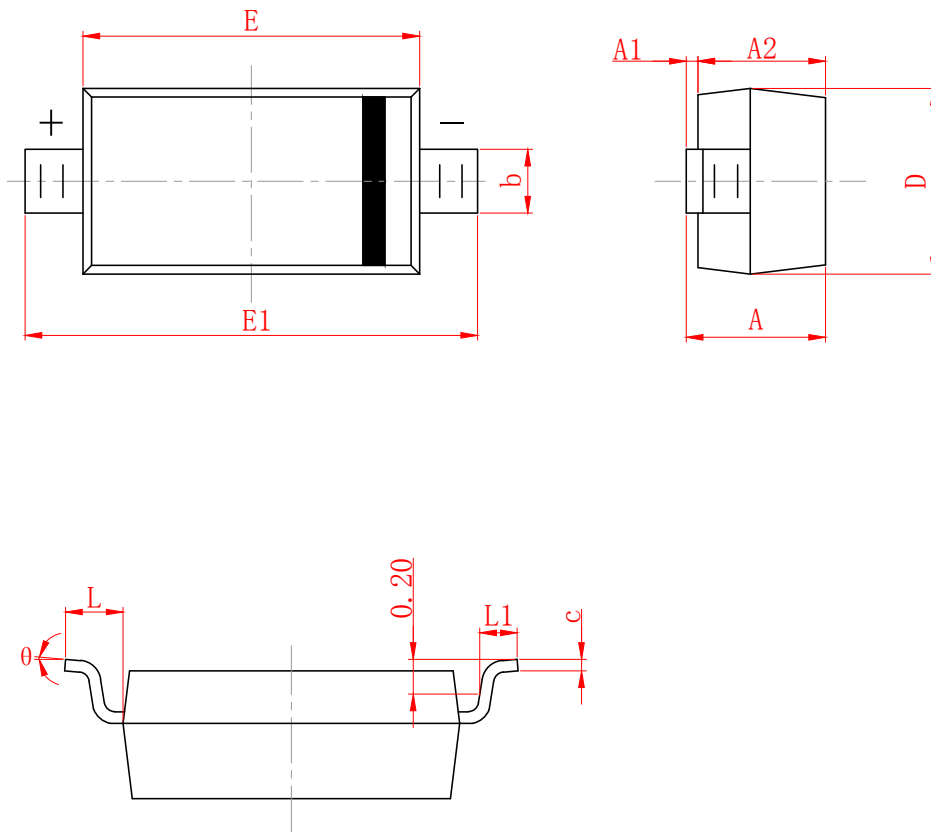


SOD-123 Reel



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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