

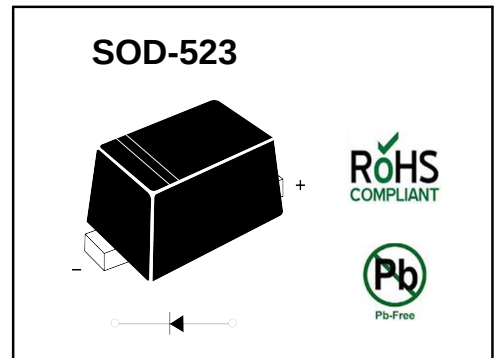
Surface Mount Schottky Barrier Diode

Features

- Low Forward Voltage
- Fast Switching

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Average Rectified Output Current	$I_{F(AV)}$	100	mA
Forward Continuous Current	I_{FM}	200	mA
Repetitive Peak Forward Current at $t < 1$ s	I_{FRM}	500	mA
Non-repetitive Peak Forward Surge Current at $t < 10$ ms	I_{FSM}	2	A
Power Dissipation	P_{tot}	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction Temperature	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 125	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100\ \mu\text{A}$	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 25$ V	I_R	-	1	μA
Forward Voltage at $I_F = 200$ mA at $I_F = 10$ mA at $I_F = 50$ mA at $I_F = 2$ mA at $I_F = 15$ mA	V_F	- - - 0.26 -	1 0.4 0.65 0.33 0.45	V
Total Capacitance at $V_R = 1$ V, $f = 1$ MHz	C_T	-	10	pF
Reverse Recovery Time at $I_F = I_R = 10$ mA, $I_{RR} = 0.1 \times I_R$, $R_L = 100\ \Omega$	t_{rr}	-	5	ns

Typical Characteristics

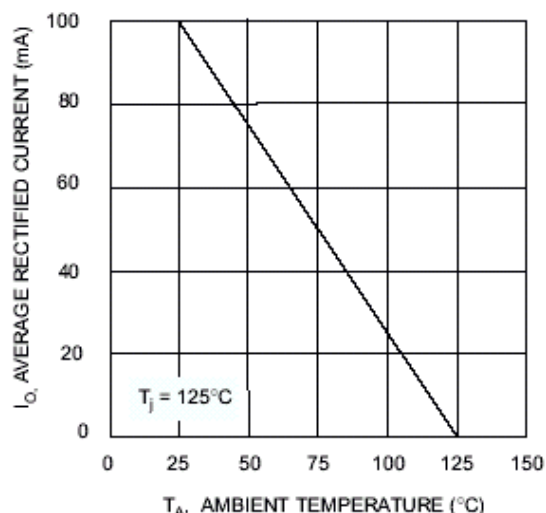


Fig. 1 Forward Current Derating Curve

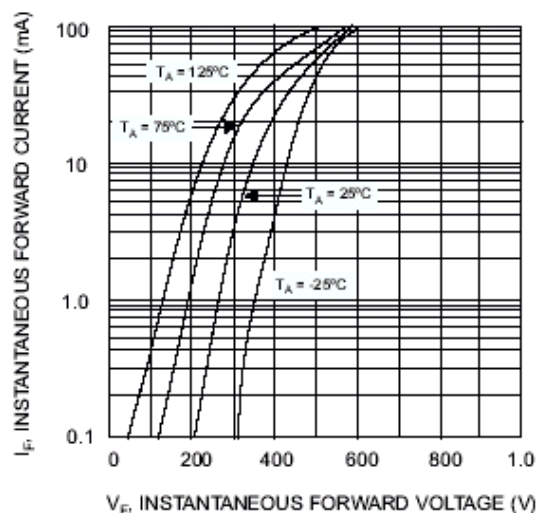


Fig. 2 Typical Forward Characteristics

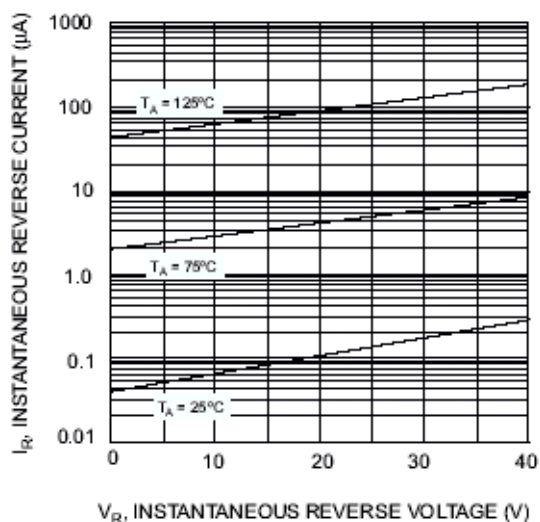


Fig. 3 Typical Reverse Characteristics

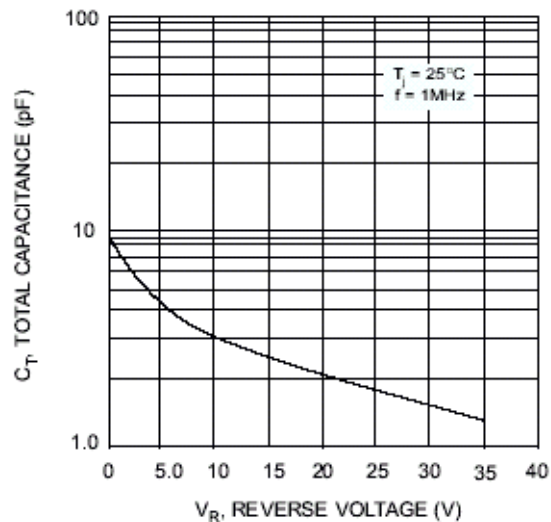
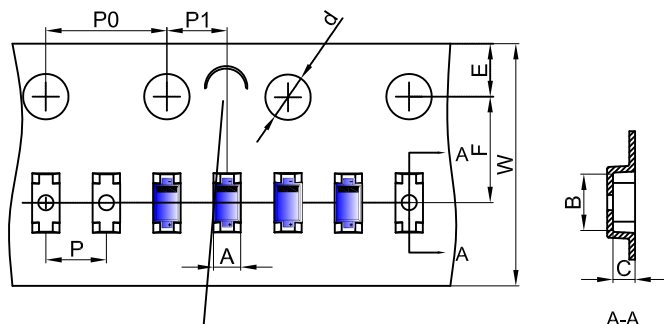


Fig. 4 Total Capacitance vs. Reverse Voltage

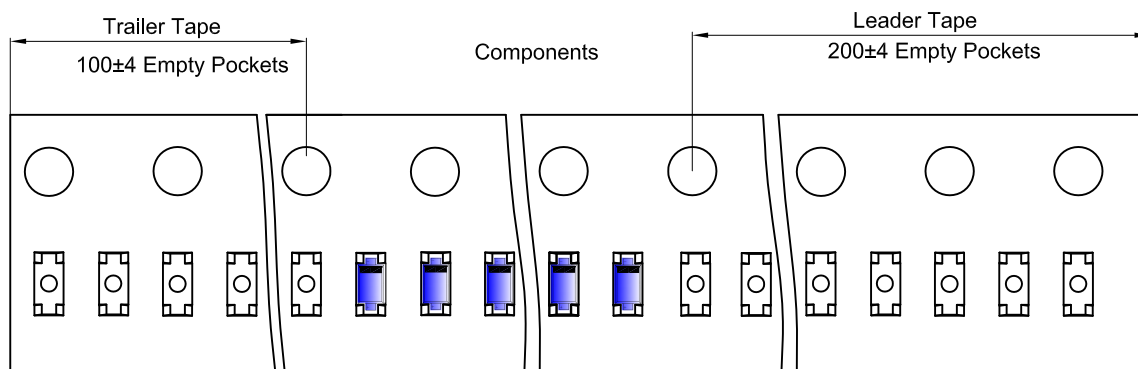
SOD-523 Embossed Carrier Tape



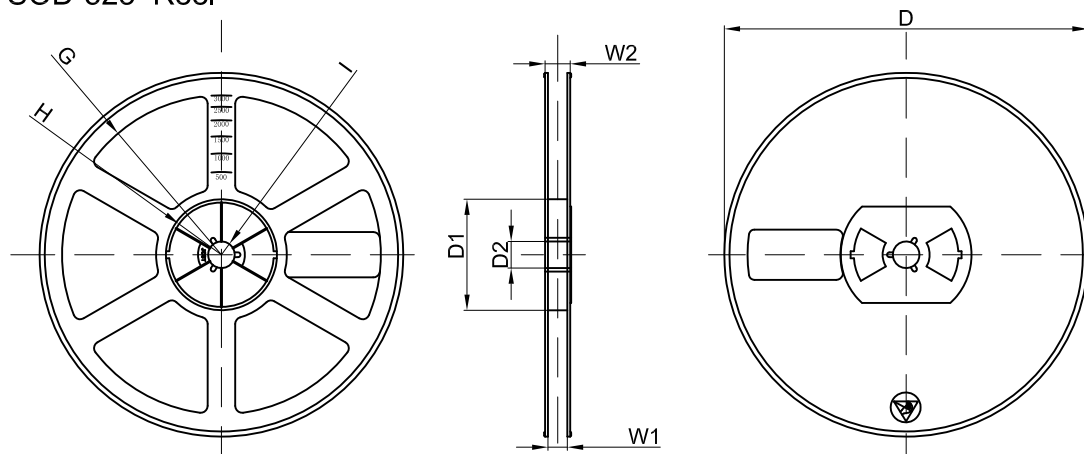
NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.9	1.94	0.73	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00

SOD-523 Tape Leader and Trailer



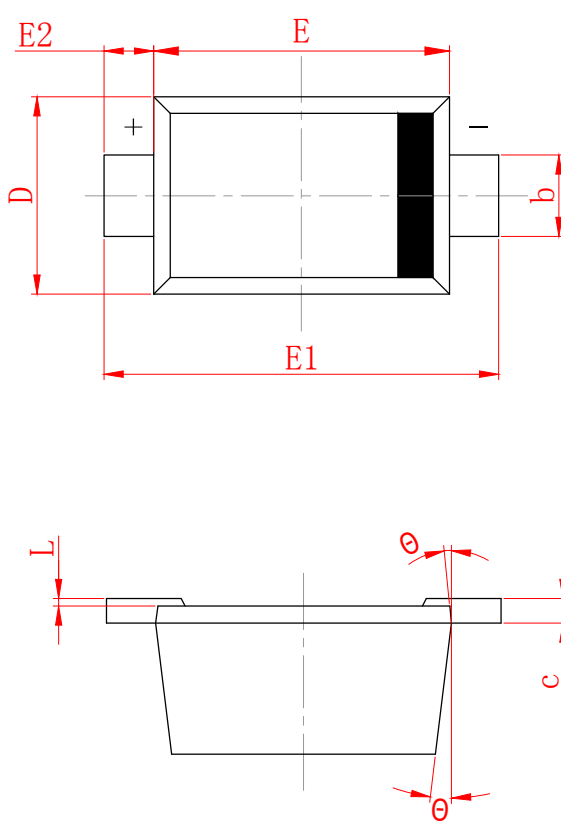
SOD-523 Reel



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)
8000 pcs	7 inch	120,000 pcs	203×203×195	480,000 pcs	438×438×220	

SOD-523 Package Outline Dimensions



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
θ	7° REF	

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