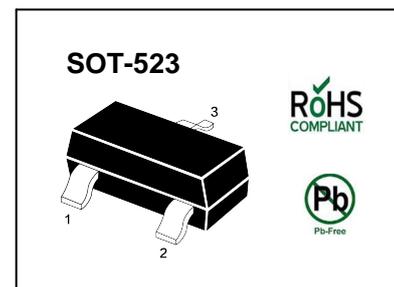
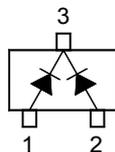


Silicon Epitaxial Planar Switching Diode

Application

- Ultra high speed switching



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

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	80	V
Reverse Voltage	V_R	80	V
Average Forward Current	$I_{F(AV)}$	100	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Non-repetitive Peak Forward Surge Current ($t = 1\text{ }\mu\text{s}$)	I_{FSM}	2	A
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$	V_F	-	1.2	V
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	80	-	V
Reverse Current at $V_R = 70\text{ V}$	I_R	-	0.1	μA
Total Capacitance at $V_R = 6\text{ V}$, $f = 1\text{ MHz}$	C_{tot}	-	3.5	pF
Reverse Recovery Time at $V_R = 6\text{ V}$, $I_F = 5\text{ mA}$, $I_{rr} = 0.1 I_R$, $R_L = 100\text{ }\Omega$	t_{rr}	-	4	ns

Typical Characteristics

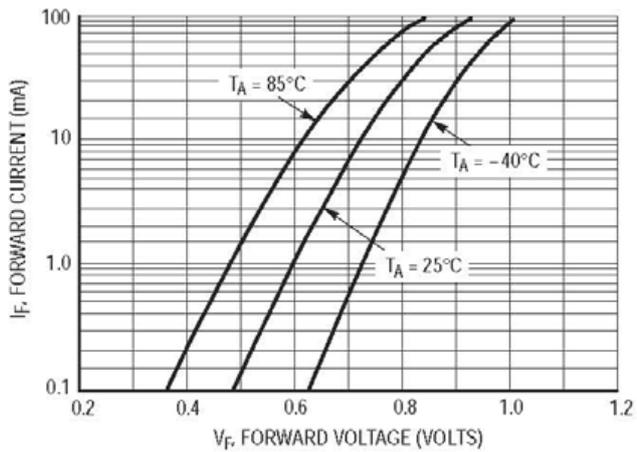


Figure 1. Forward Voltage

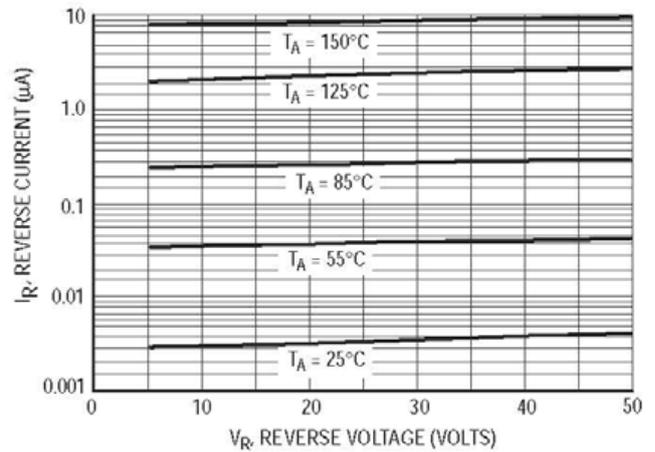


Figure 2. Reverse Current

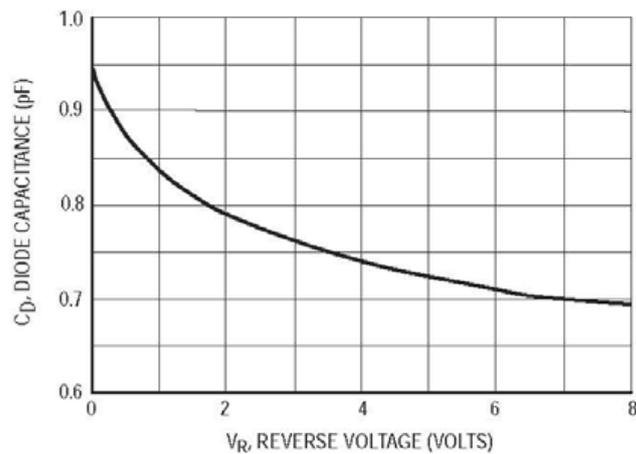
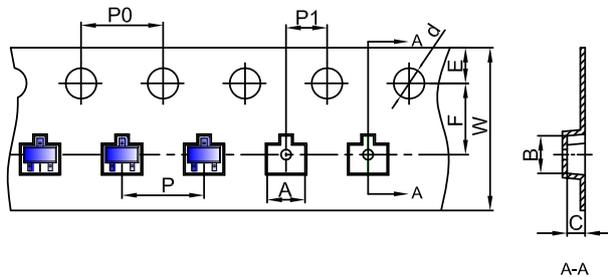


Figure 3. Diode Capacitance

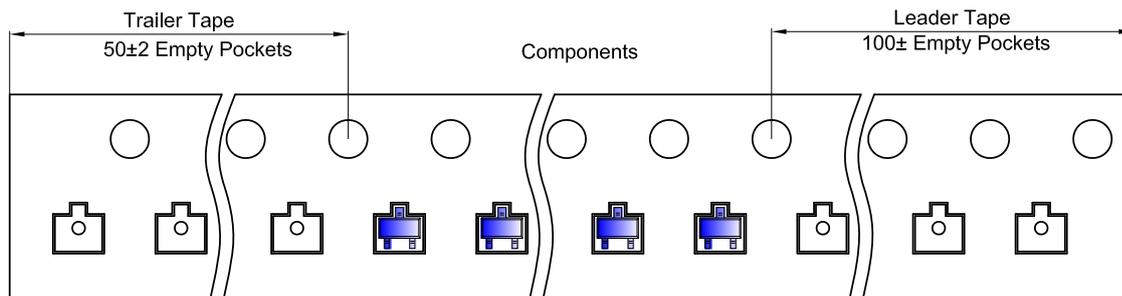
SOT-523 Tape and Reel

SOT-523 Embossed Carrier Tape

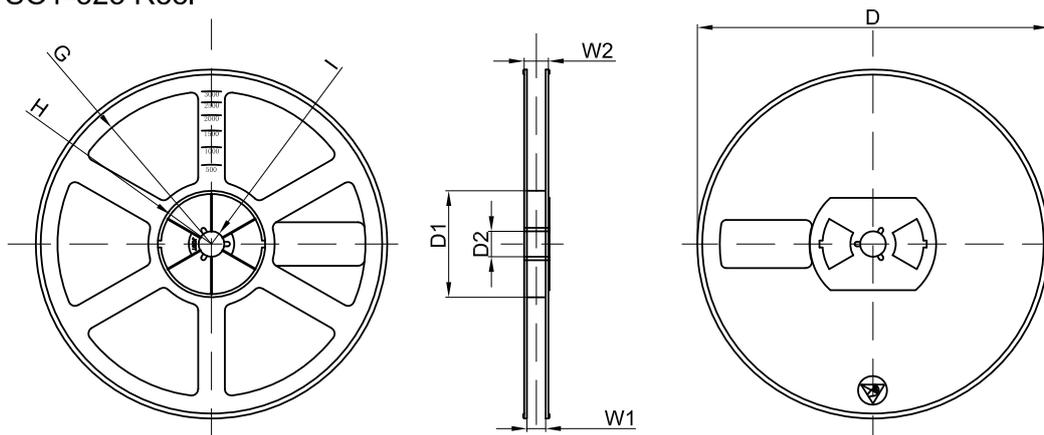


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-523	1.85	1.85	0.875	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-523 Tape Leader and Trailer

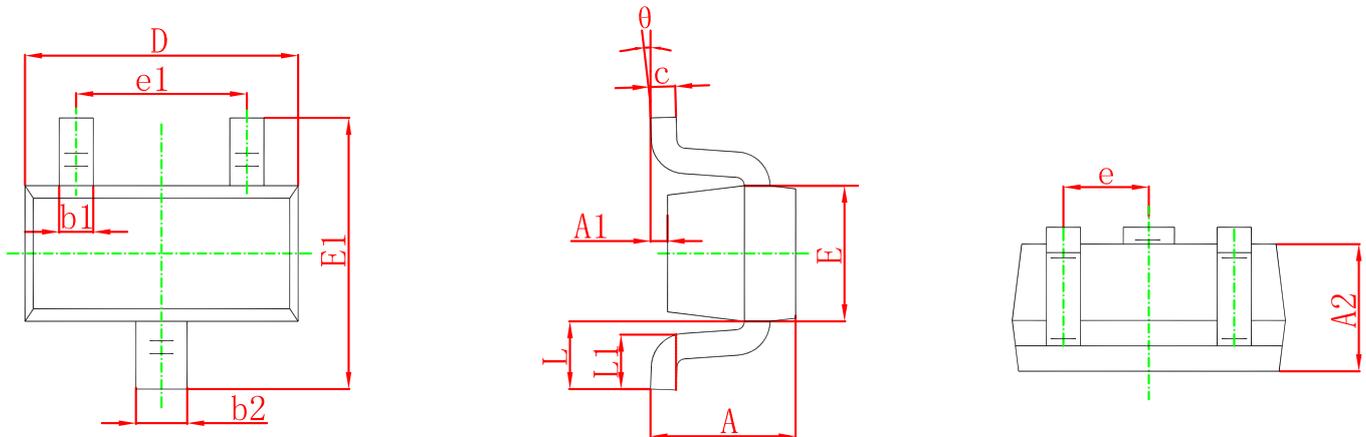


SOT-523 Reel



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)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

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