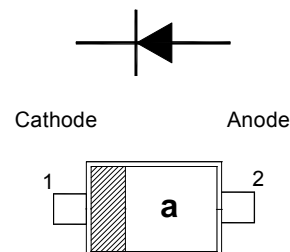


Applications

- high speed switching
- high voltage switching

Marking Code: "a"



SOD-523

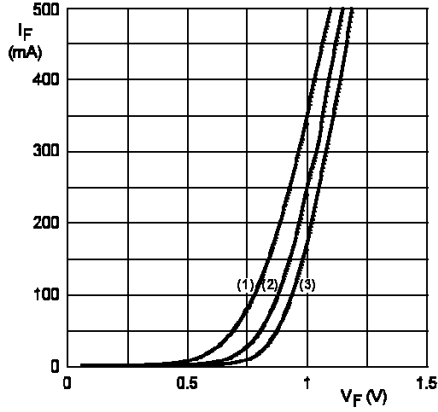
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	250	V
Reverse Voltage	V_R	250	V
Continuous Forward Current	I_F	225	mA
Repetitive Peak Forward Current	I_{FRM}	625	mA
Non-Repetitive Peak Forward Current (1 μs)	I_{FSM}	4	A
Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

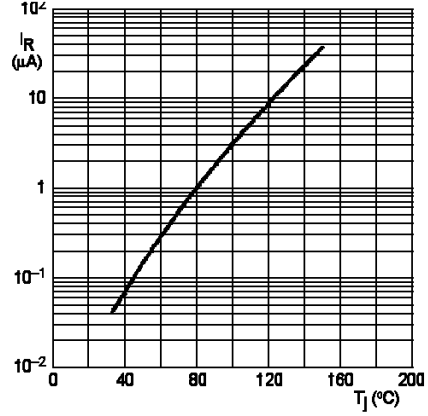
Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 100\text{ mA}$	V_F	-	1.1	V
Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	250	-	V
Reverse Current at $V_R = 200\text{ V}$	I_R	-	150	nA
Reverse Recovery Time at $I_F = I_R = 30\text{ mA}$, $R_L = 100\text{ }\Omega$, $i_{rr} = 0.1\text{ }I_R$	t_{rr}	-	50	ns
Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_T	-	5	pF

HIGH VOLTAGE SWITCHING DIODE



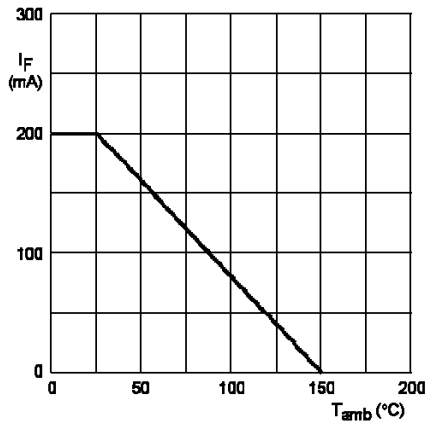
- (1) $T_{amb} = 150\text{ }^\circ\text{C}$.
- (2) $T_{amb} = 75\text{ }^\circ\text{C}$.
- (3) $T_{amb} = 25\text{ }^\circ\text{C}$.

Forward current as a function of forward voltage; typical values.

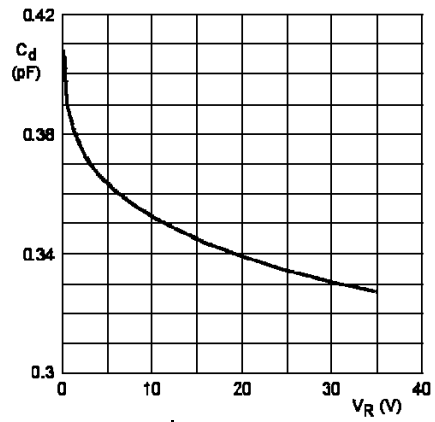


$V_R = V_{Rmax}$; typical values.

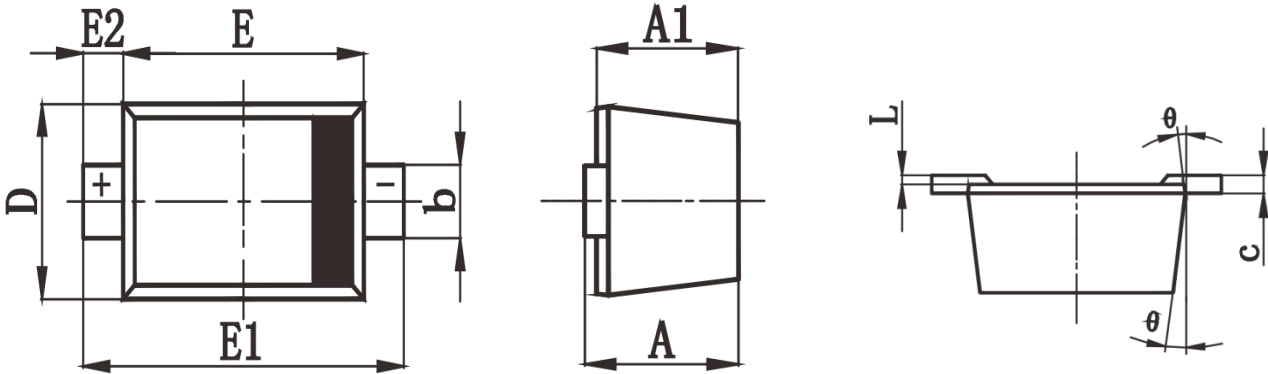
Reverse current as a function of junction temperature.



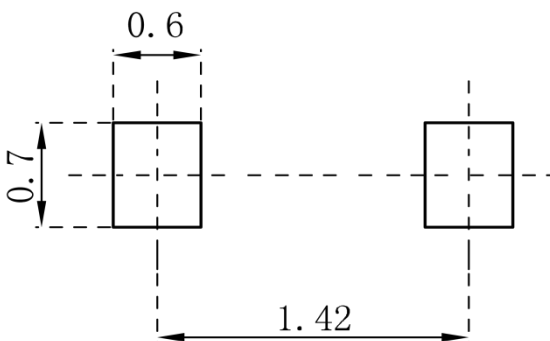
Maximum permissible continuous forward current as a function of ambient temperature.



Diode capacitance as a function of reverse voltage; typical values.

SOD-523 Package Outline Dimensions


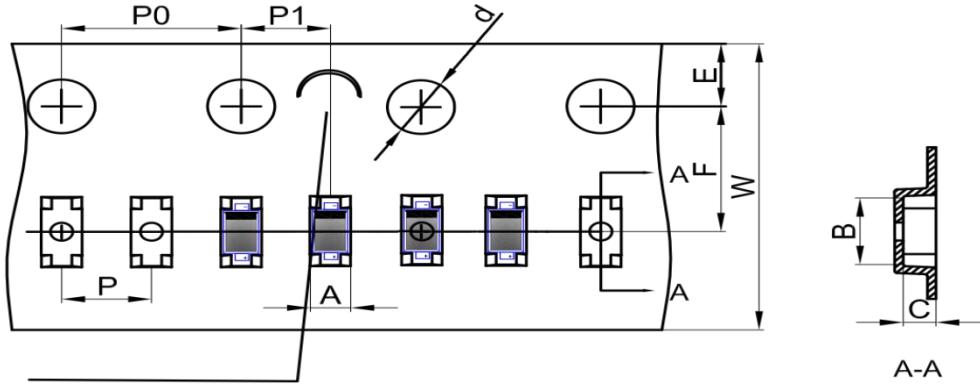
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.510	0.770	0.020	0.031
A1	0.010	0.070	0.001	0.003
A2	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
L	0.200 REF		0.008 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-523 Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

SOD-523 Tape and Reel

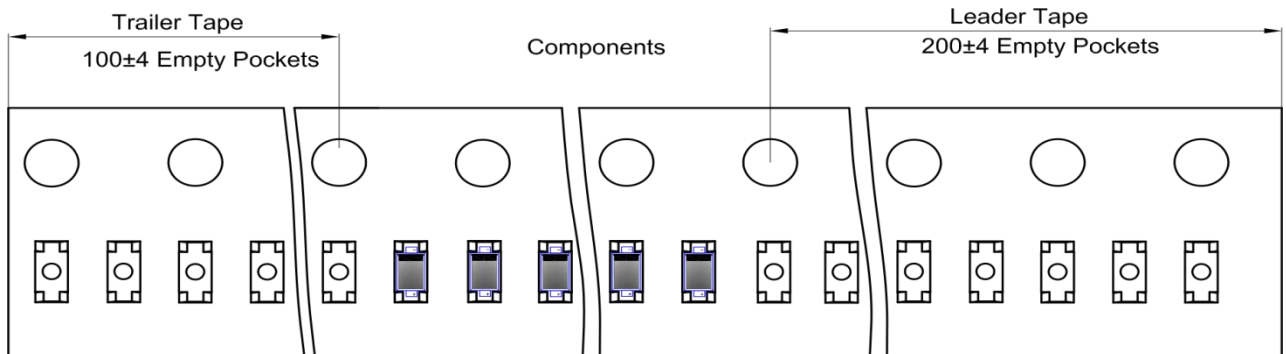
SOD-523 Embossed Carrier Tape



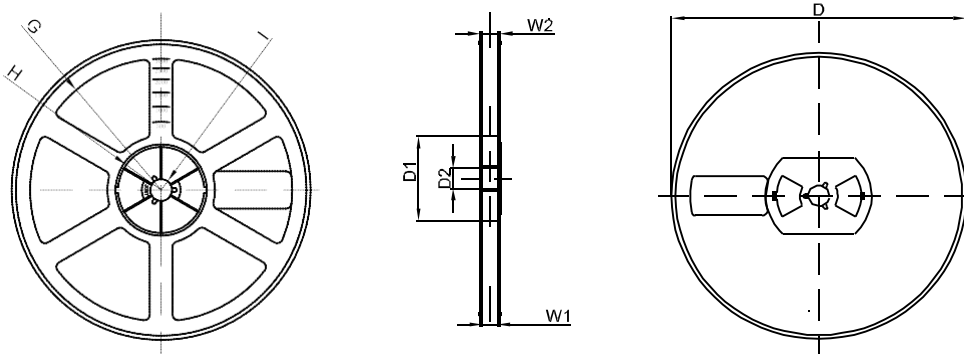
NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.90	1.94	0.73	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

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	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1