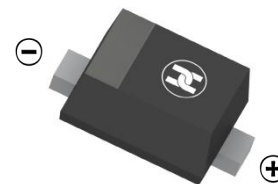
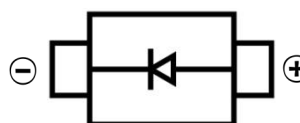


SWITCHING DIODE
FEATURES

- Fast Switching
- Low Reverse Current
- Surface Mount device
- For General Purpose Switching Applications


SOD-523

MECHANICAL DATA

- Case: SOD-523
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)
- Marking:6

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

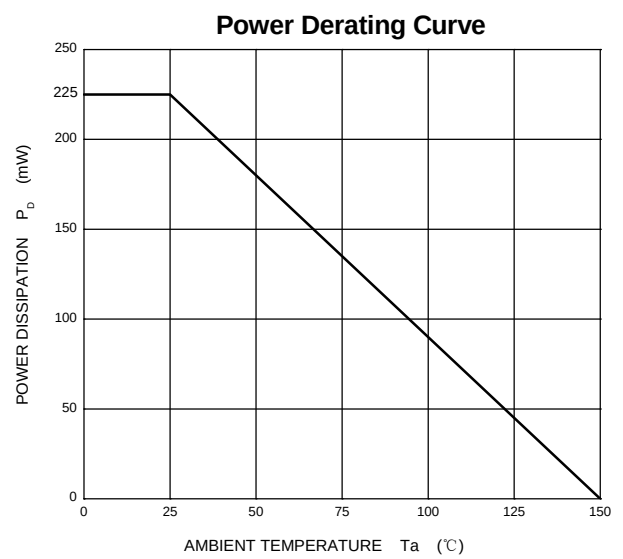
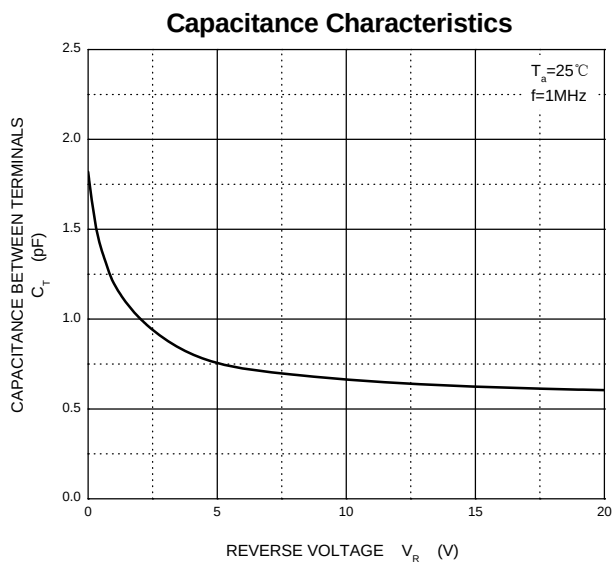
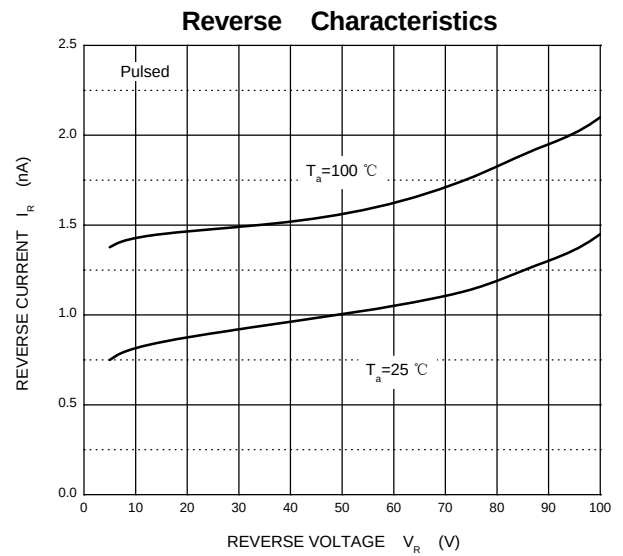
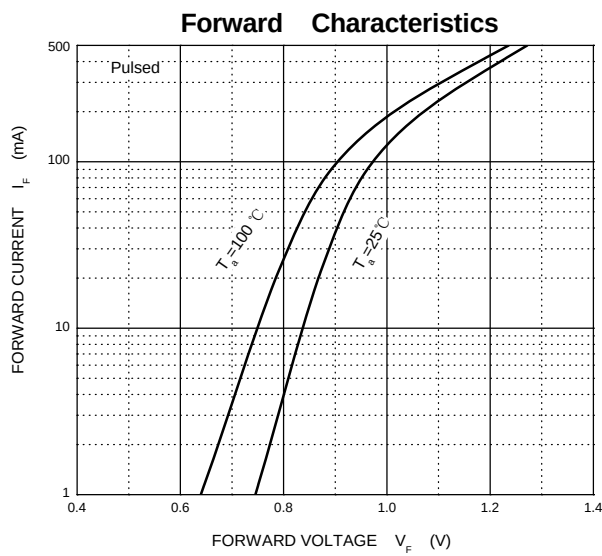
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ $t_{@}=8.3\text{ms}$	I_{FSM}	2.0	A
Power Dissipation	P_D	225	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	556	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~+150	$^{\circ}\text{C}$

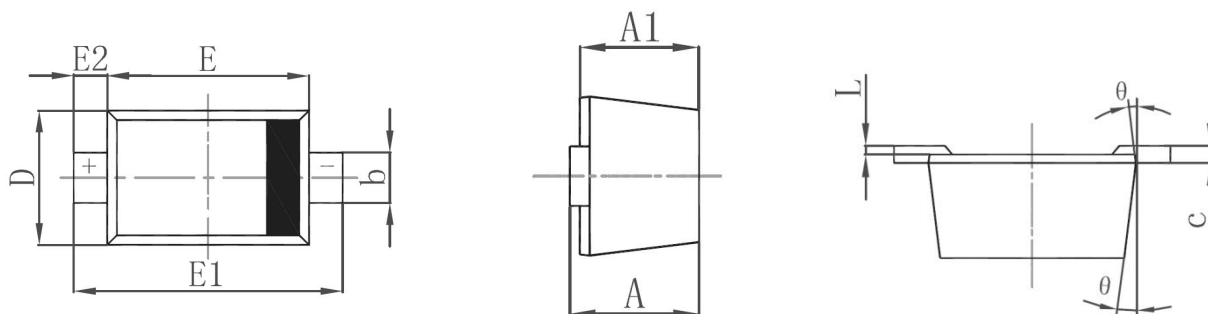
ELECTRICAL CHARACTERISTICS ($T_A = 25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse voltage	$V_{(BR)}$	100			V	$I_R=100\mu\text{A}$
Forward voltage	V_F			0.71	V	$I_F=1\text{mA}$
				0.85		$I_F=10\text{mA}$
				0.98		$I_F=50\text{mA}$
				1.24		$I_F=200\text{mA}$
Reverse voltage leakage current	I_R			25	nA	$V_R=25\text{V}$
				0.5	μA	$V_R=75\text{V}$
Diode capacitance	C_D			4	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse recovery time	T_{rr}			4	nS	$I_F=I_R=60\text{mA}, I_{rr}=0.1I_R, R_L=100\Omega$

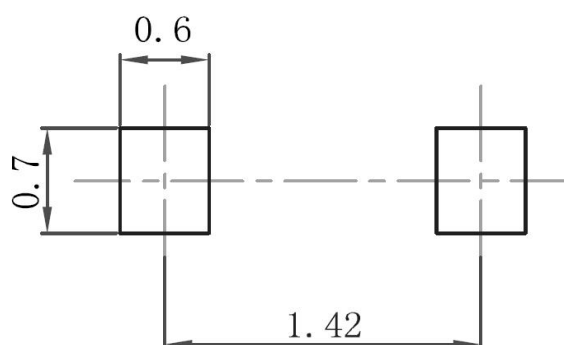
SWITCHING DIODE

Typical Characteristics

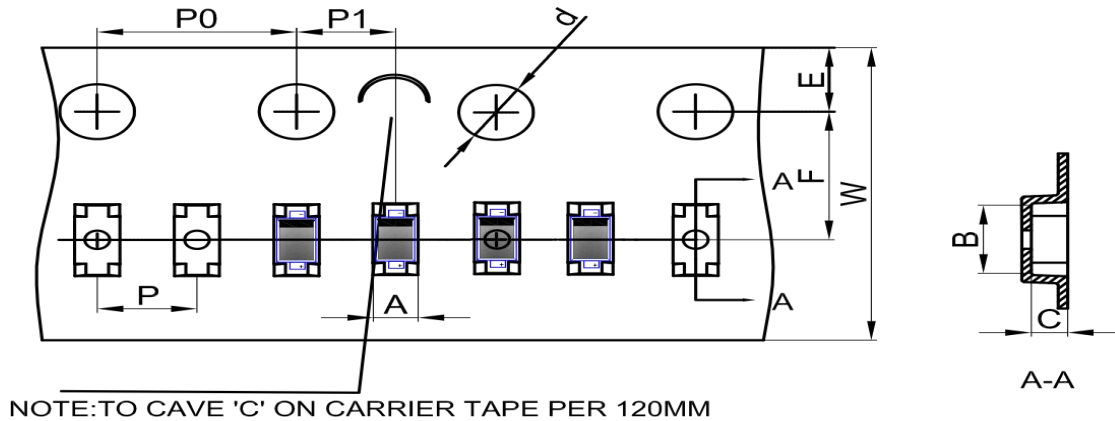


SWITCHING DIODE
SOD-523 Package Outline Dimensions


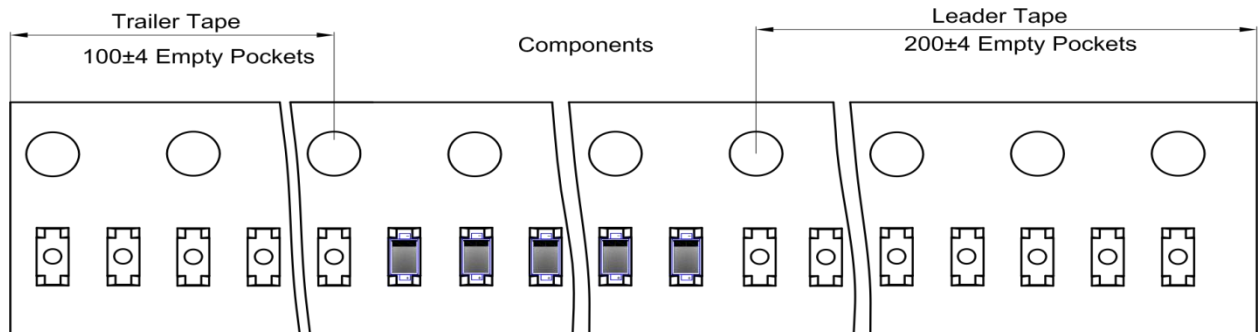
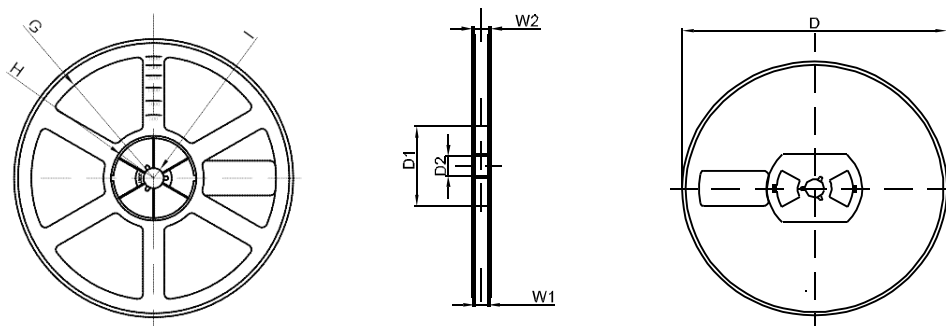
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.057	0.069
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7°REF		7°REF	

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

SWITCHING DIODE
SOD-523 Tape and Reel
SOD-523 Embossed Carrier Tape


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	4.00	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