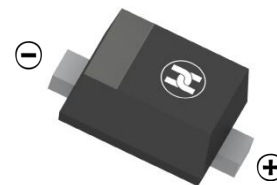
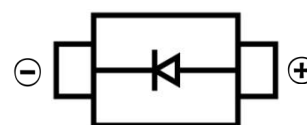


**SWITCHING DIODE**
**FEATURES**

- Fast Switching
- High Conductance
- 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:A

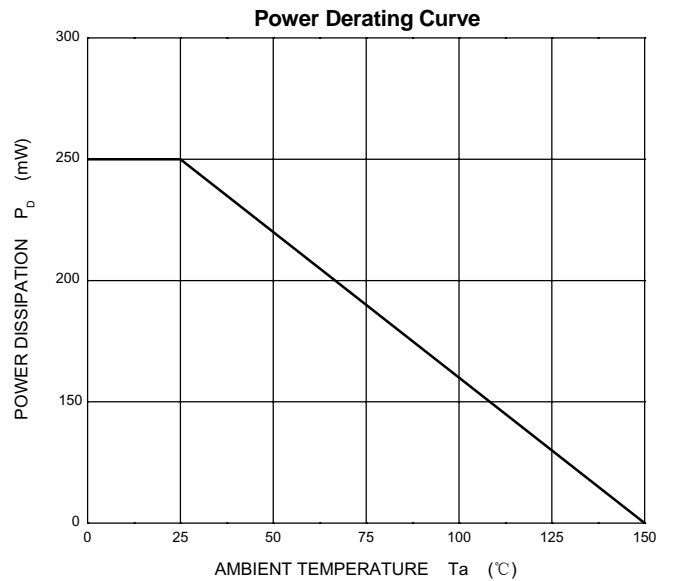
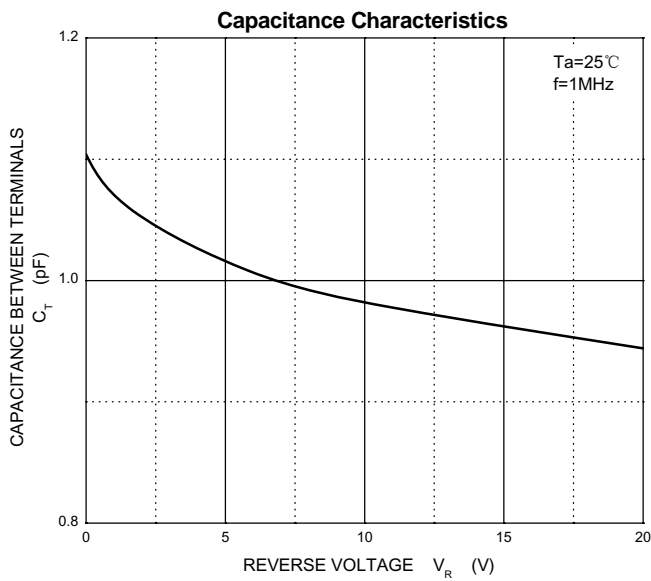
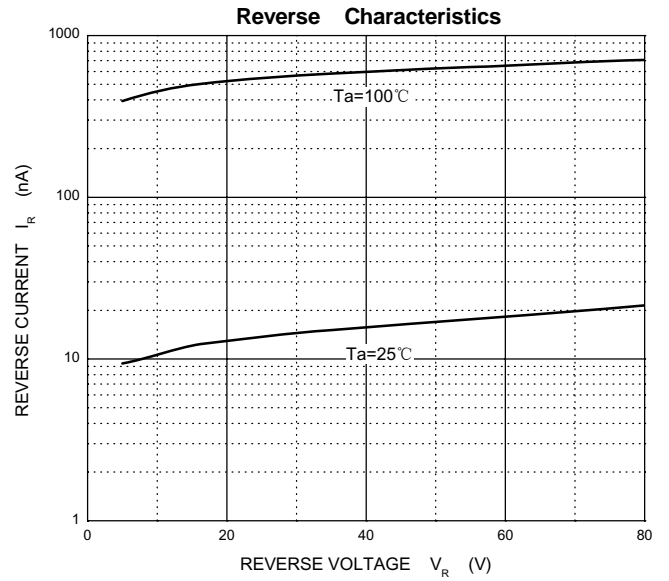
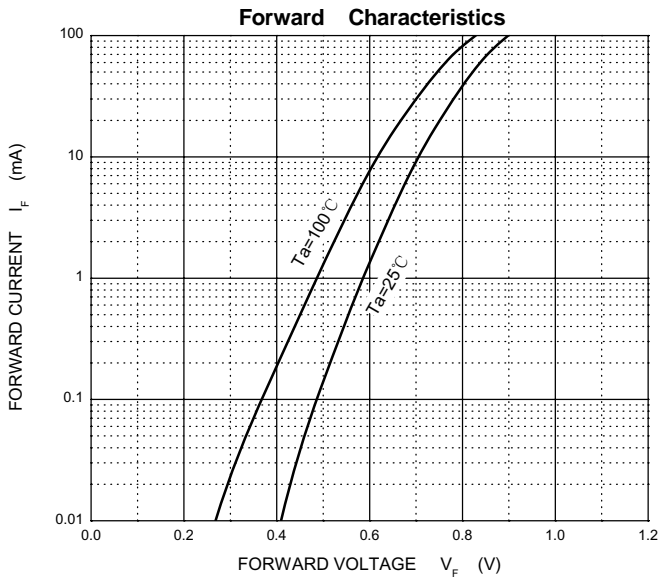
<b>MAXIMUM RATINGS (Ta=25°C unless otherwise noted)</b>	<b>Symbol</b>	<b>Value</b>	<b>Unit</b>
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @t@=8.3ms	$I_{FSM}$	2.0	A
Power Dissipation	$P_D$	250	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-55 ~+150	°C

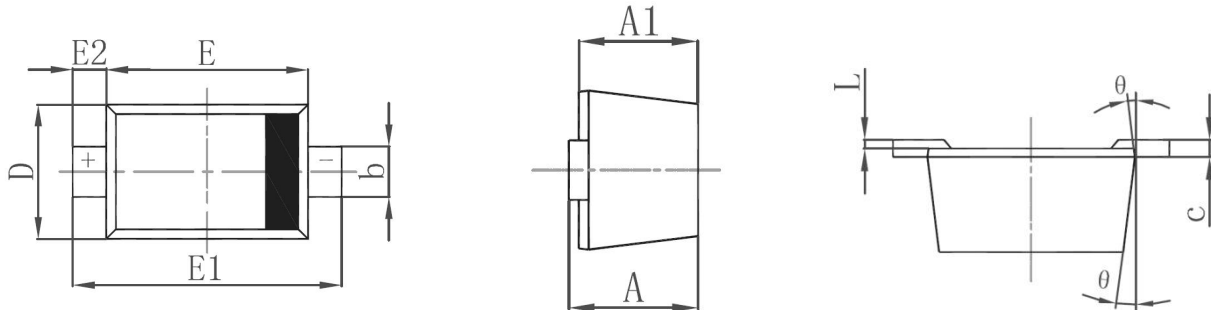
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

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

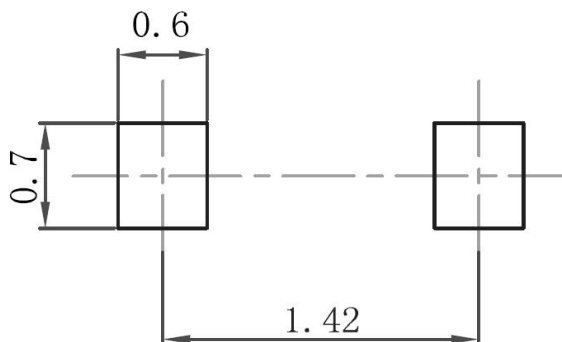
SWITCHING DIODE

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	2.250	2.750	0.100	0.108
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
$\theta$	7°REF		7°REF	

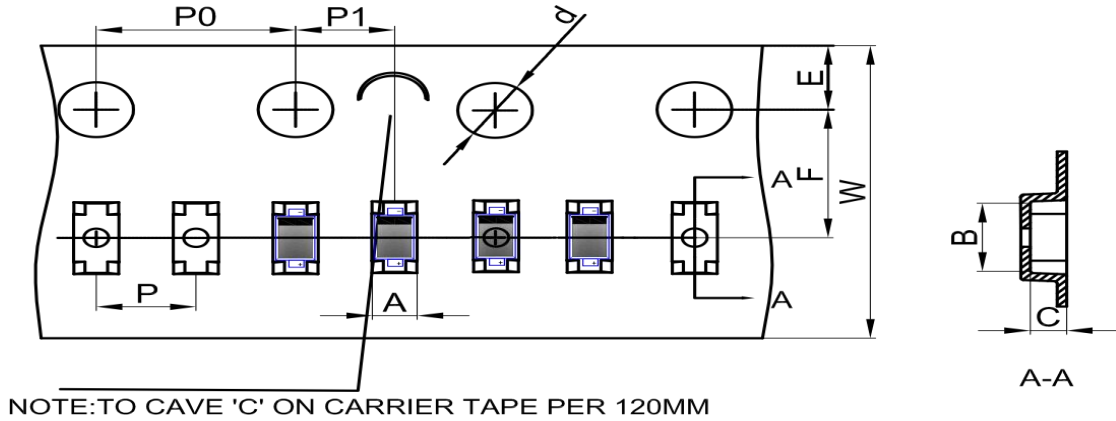
**SOD-523 Suggested Pad Layout**

**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

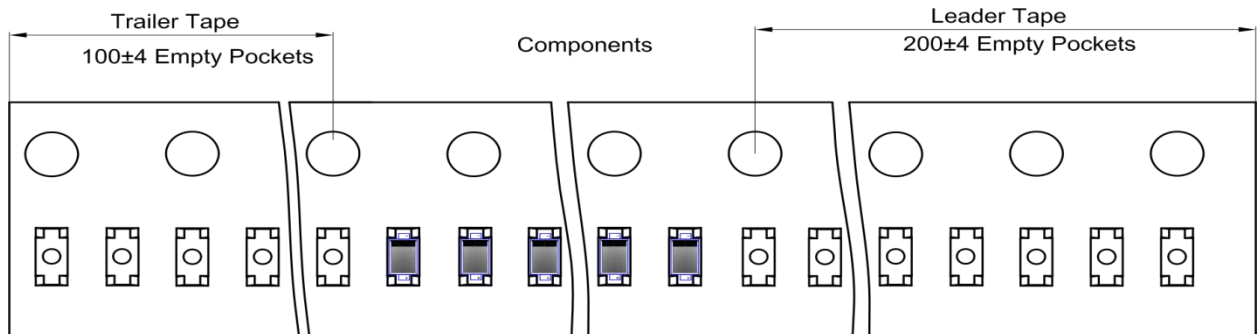
**SOD-523 Tape and Reel**

**SOD-523 Embossed Carrier Tape**

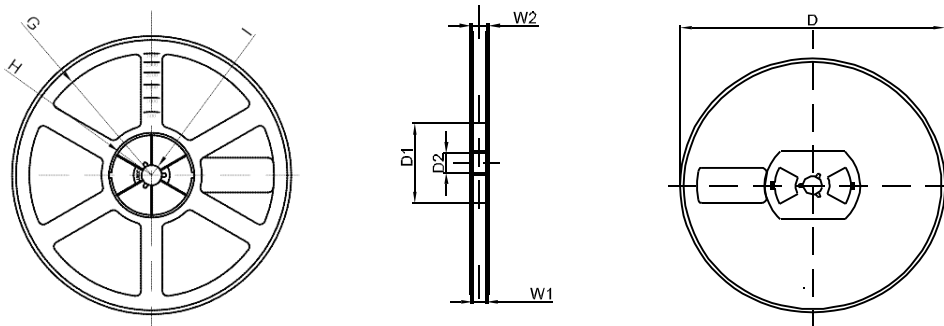


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.90	1.94	0.73	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**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