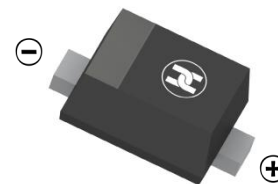
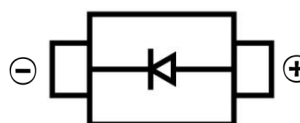


**SWITCHING DIODE**
**FEATURES**

- 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<sub>A</sub> = 25°C unless otherwise noted)**

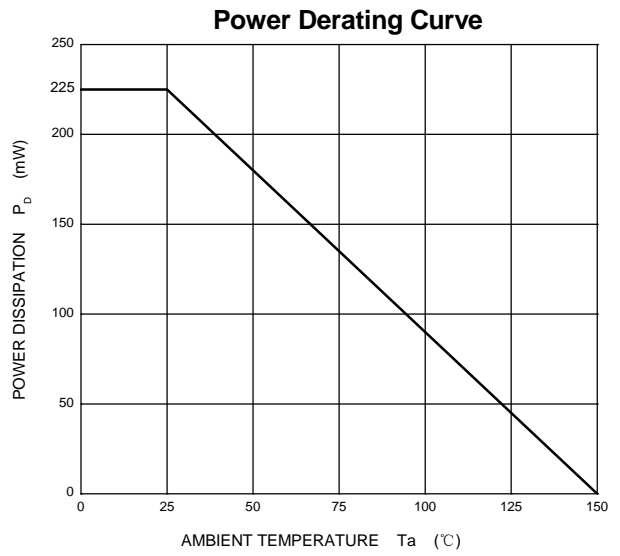
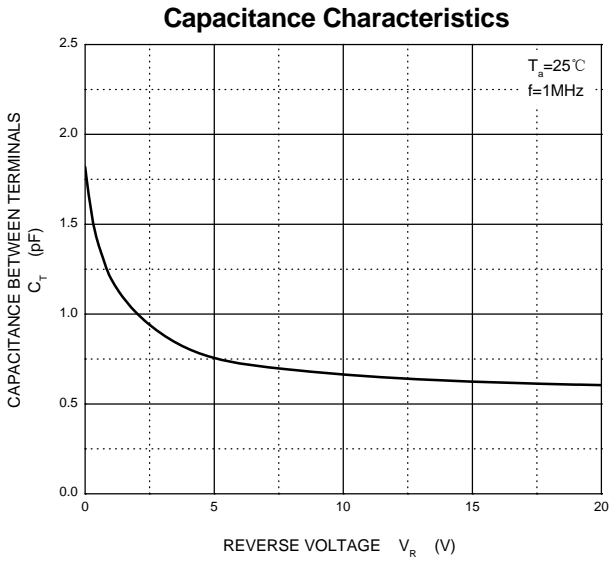
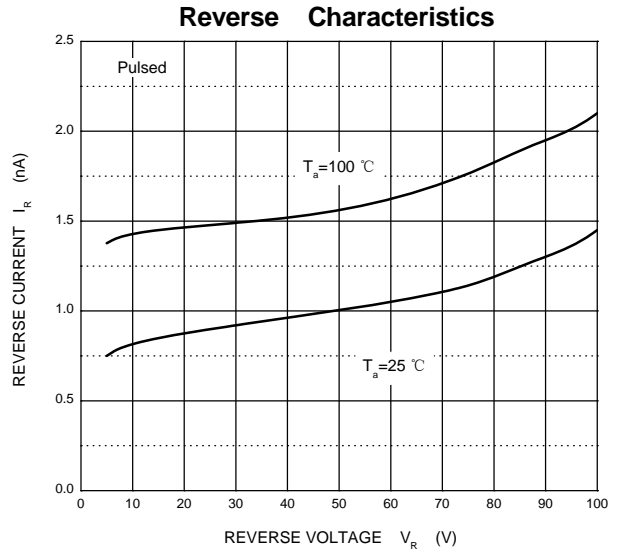
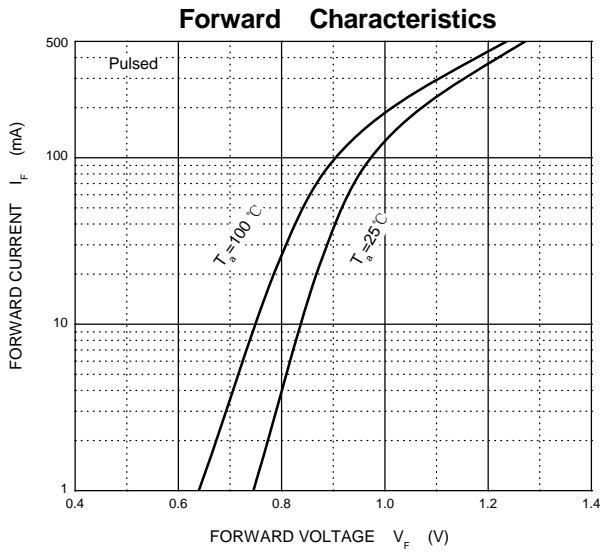
Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	75	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Average Rectified Output Current	I <sub>O</sub>	200	mA
Non-Repetitive Peak Forward Surge Current @t@=8.3ms	I <sub>FSM</sub>	2.0	A
Power Dissipation	P <sub>D</sub>	225	mW
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	556	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 ~+150	°C

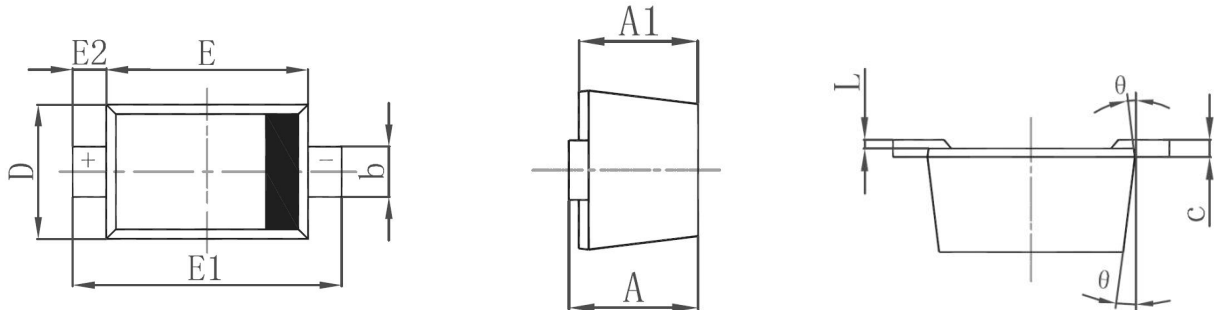
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse voltage	V <sub>(BR)</sub>	100			V	I <sub>R</sub> =100μA
Forward voltage	V <sub>F</sub>			0.71	V	I <sub>F</sub> =1mA
				0.85		I <sub>F</sub> =10mA
				0.98		I <sub>F</sub> =50mA
				1.24		I <sub>F</sub> =200mA
Reverse voltage leakage current	I <sub>R</sub>			25	nA	V <sub>R</sub> =25V
				0.5	μA	V <sub>R</sub> =75V
Diode capacitance	C <sub>D</sub>			4	pF	V <sub>R</sub> =0V,f=1MHz
Reverse recovery time	T <sub>rr</sub>			4	nS	I <sub>F</sub> = I <sub>R</sub> =60mA , I <sub>rr</sub> =0.1I <sub>R</sub> .RL=100R

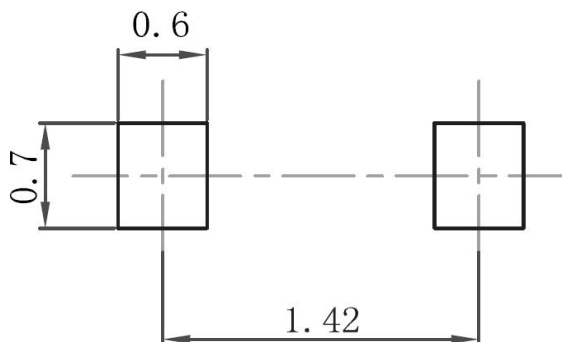
SWITCHING DIODE

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	

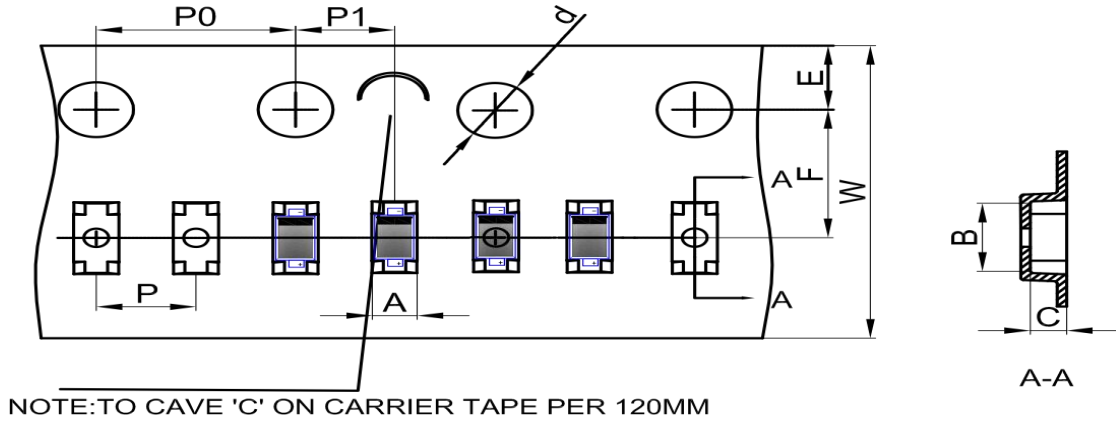
**SOD-523 Suggested Pad Layout**

**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

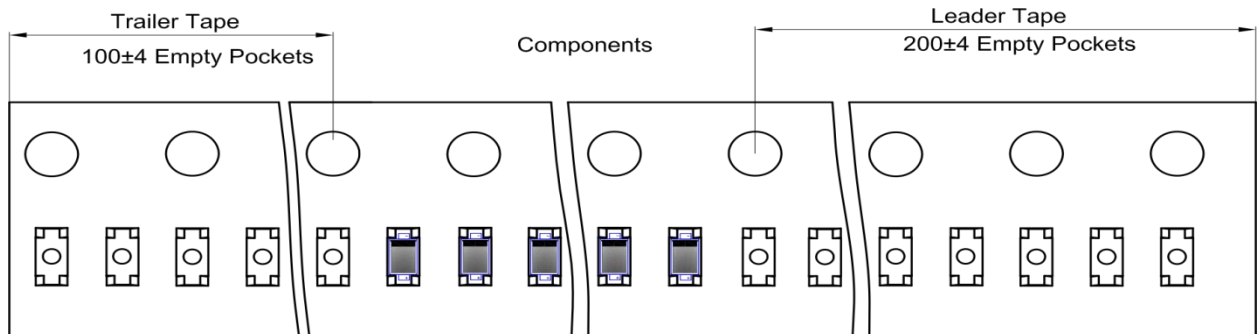
**SOD-523 Tape and Reel**

**SOD-523 Embossed Carrier Tape**

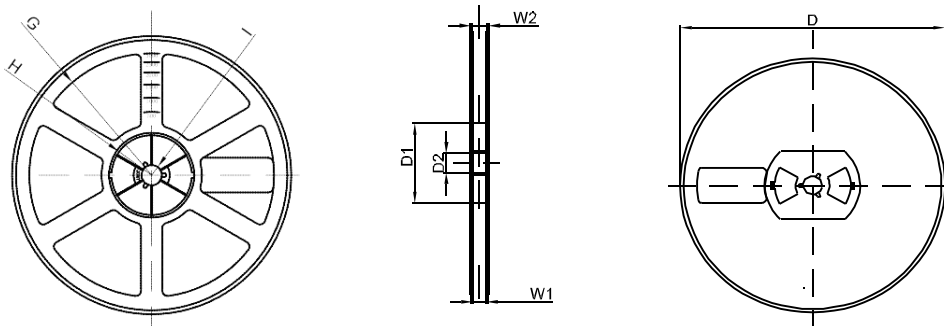


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.90	1.94	0.73	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**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

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