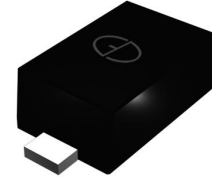


## SOD-523 Plastic -Encapsulate Diode

### Features

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion



### Mechanical Data

- SOD-523 small outline plastic package
- Polarity: color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting position: any

**Marking:** T5 SOD-523

### Maximum Ratings & Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameters	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Reverse Voltage	V <sub>R</sub>	75	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>		
Working Peak Reverse Voltage	V <sub>RWM</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Power Dissipation	P <sub>D</sub>	150	mW
Operating junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>STG</sub>	-55-+150	°C
Average Rectified Current	I <sub>O</sub>	250	mA
Non-repetitive Peak Forward Current	I <sub>FM</sub>	500	mA
Non-repetitive Peak Forward Surge Current @ t= 8.3ms	I <sub>FSM</sub>	2.0	A
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	833	°C/W

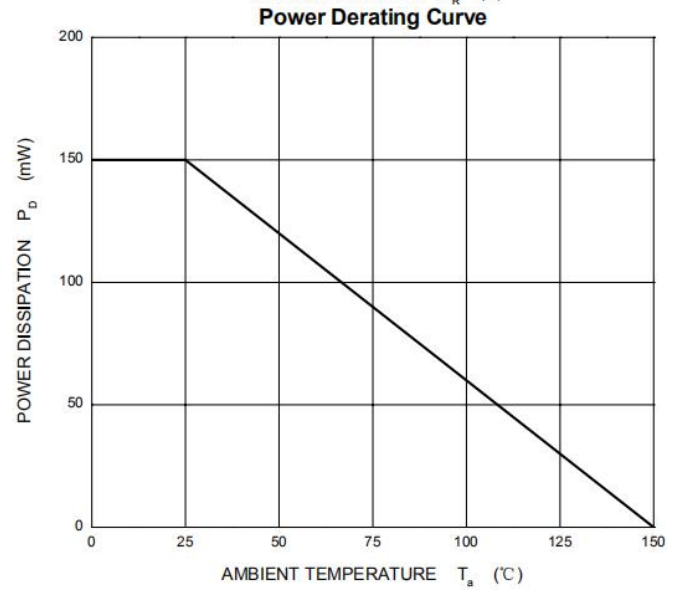
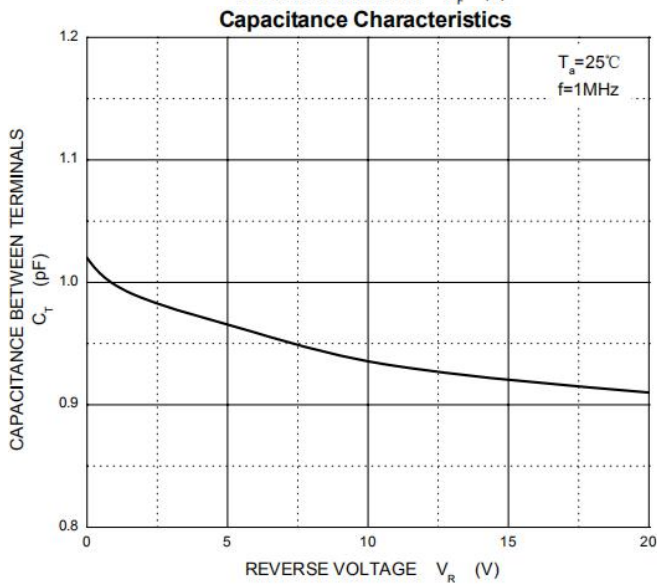
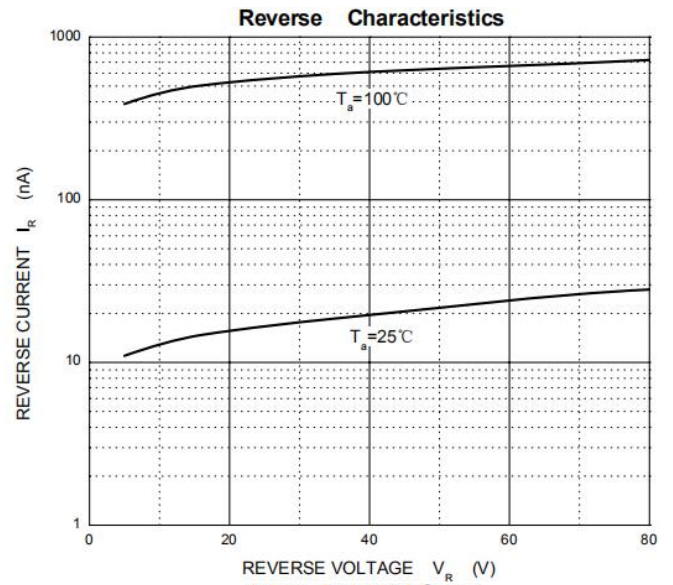
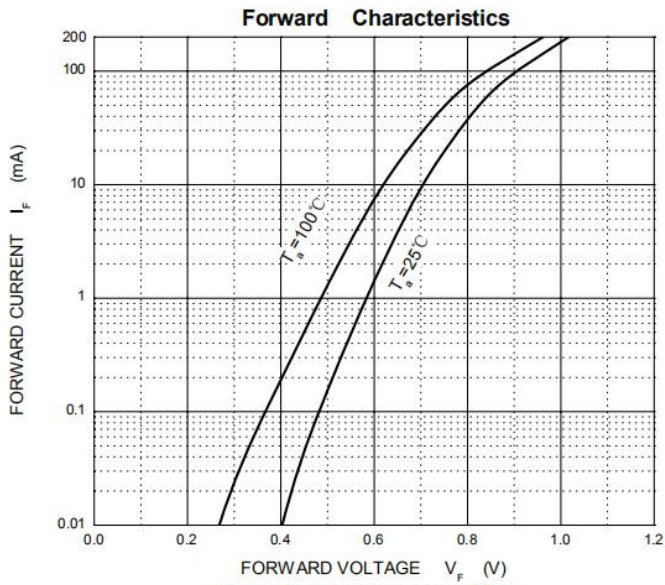
Valid provided that electrodes are kept at ambient temperature.

### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Breakdown Voltage	V <sub>(BR)</sub>	I <sub>R</sub> =5uA I <sub>R</sub> =100uA	75		V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =20V		25	nA
		V <sub>R</sub> =75V		1	uA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0mA		0.715	V
		I <sub>F</sub> =10mA		0.855	
		I <sub>F</sub> =50mA		1.00	
		I <sub>F</sub> =150mA		1.25	
Reverse Recovery Time	T <sub>RR</sub>	I <sub>F</sub> = I <sub>R</sub> = 10mA, R <sub>L</sub> =100 Ω I <sub>rr</sub> =0.1X I <sub>R</sub>		4	nS
Capacitance	C <sub>j</sub>	V <sub>R</sub> =0V, f=1MHZ		4	pF

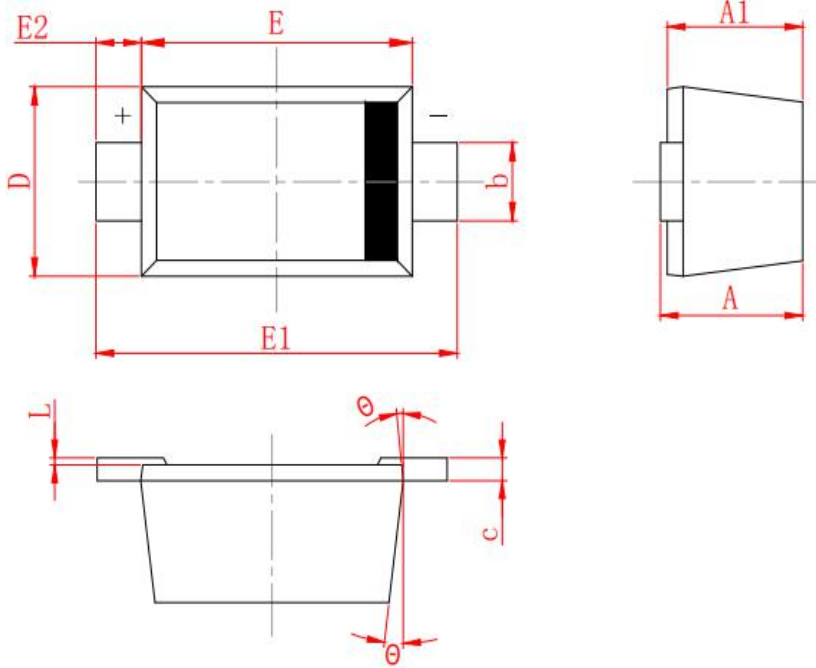
## Ratings and Characteristics Curves

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



## Package Outline Dimensions

in inches (millimeters)



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
theta	7° REF	

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2020.07.21	First issue

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