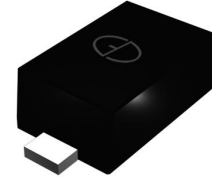


SOD-523 Plastic - Encapsulate Diode

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_A=25°C unless otherwise noted)

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

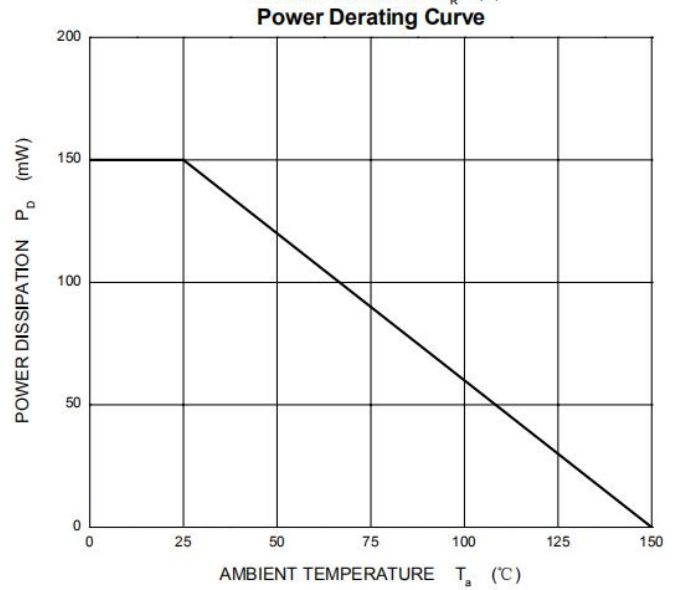
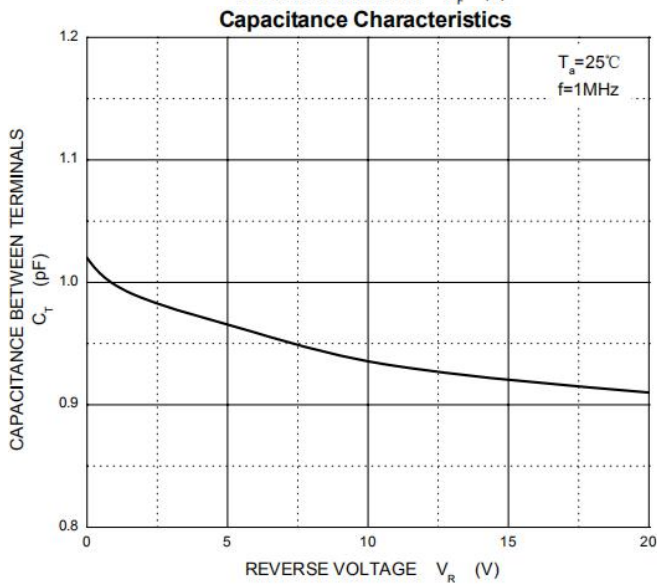
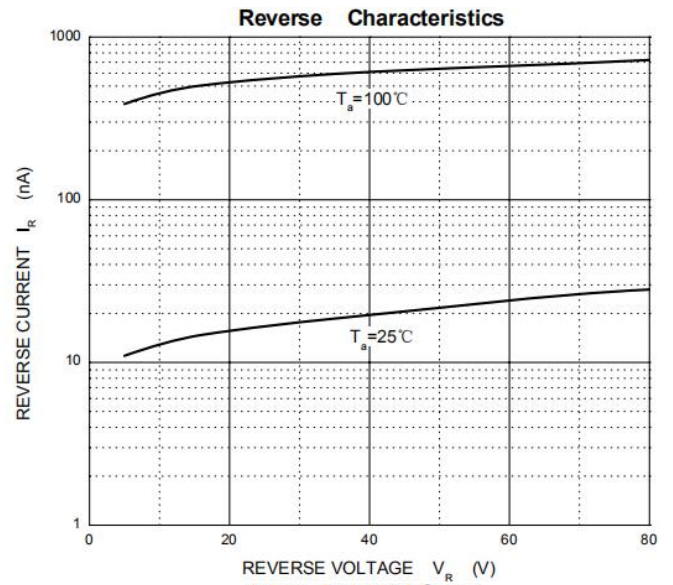
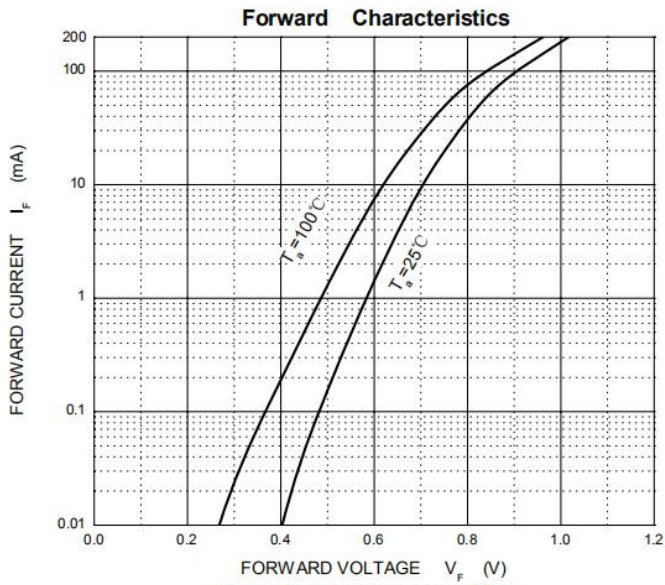
Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Breakdown Voltage	V _(BR)	I _R =5uA I _R =100uA	75		V
Reverse Leakage Current	I _R	V _R =20V		25	nA
		V _R =75V		1	uA
Forward Voltage	V _F	I _F =1.0mA		0.715	V
		I _F =10mA		0.855	
		I _F =50mA		1.00	
		I _F =150mA		1.25	
Reverse Recovery Time	T _{RR}	I _F = I _R = 10mA, R _L =100 Ω I _{rr} =0.1X I _R		4	nS
Capacitance	C _j	V _R =0V, f=1MHZ		4	pF

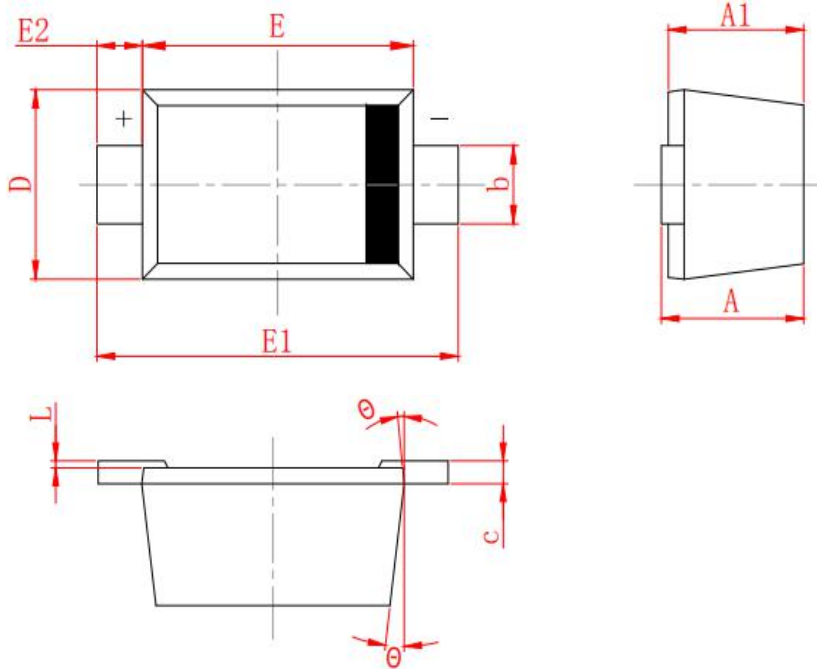
Ratings and Characteristics Curves

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



Package Outline Dimensions

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
θ	7° REF	

Revision History

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

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