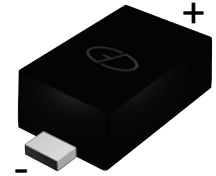


Features

- High-speed switching applications
- Lead finish: 100% matte Sn (Tin)
- Qualified reflow temperature: 260 °C
- SOD-523 Plastic-Encapsulate Package



SOD-523



Schematic Diagram

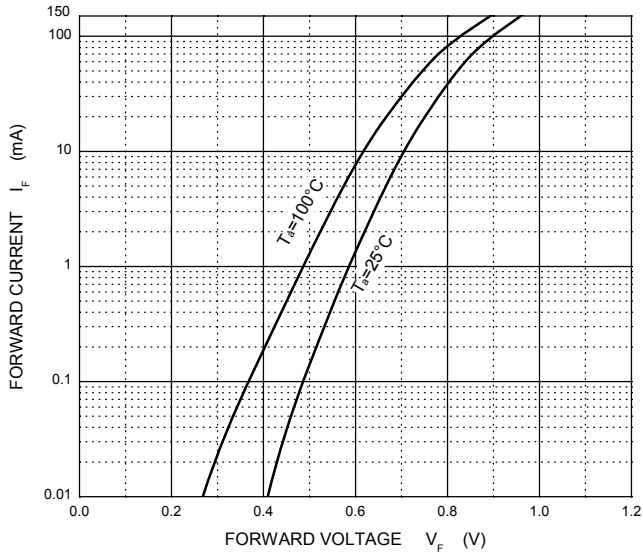
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R	75	V
Forward Continuous Current	I _F	200	mA
Non-Repetitive Peak Forward Surge Current@t= 8.3mS	I _{FSM}	2	A
Power Dissipation	P _D	150	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	833	°C/W
Junction Temperature	T _J	-55 to +150	°C
Storage Temperature	T _{STG}	-55 to +150	°C

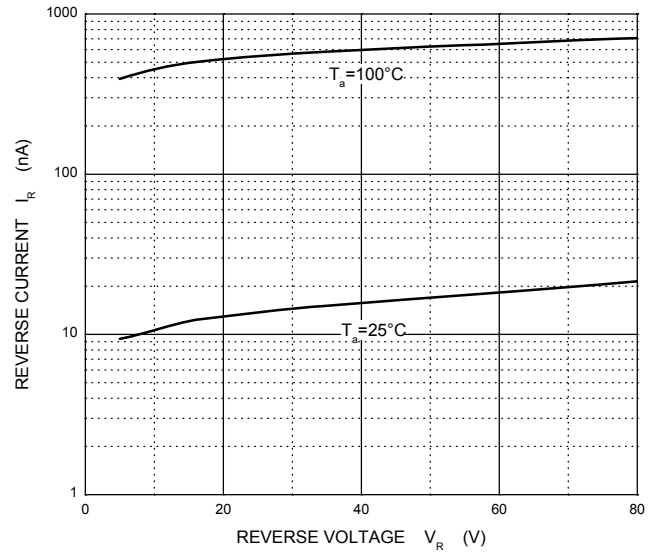
Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse Breakdown Voltage	V _(BR)	I _R =100uA	75	-	mV
Forward Voltage	V _{F1}	I _F =1mA	-	715	
	V _{F2}	I _F =10mA	-	855	
	V _{F3}	I _F =50mA	-	1000	
	V _{F4}	I _F =150mA	-	1250	
Reverse Recovery Time	t _{rr}	I _F =I _R =10mA dc, R _L =50Ω	-	6.0	nS
Reverse Current	I _R	V _R =75V	-	1.0	μA
Forward Recovery Voltage	V _{FR}	I _F =10mA, t _r = 20nS	-	1.75	V
Diode Capacitance	C _D	V _R =0V, f=1MHZ	-	2.0	pF
Stored Charge	Q _S	I _F =10mA, V _R =5.0V, R _L =500Ω	-	45	pC

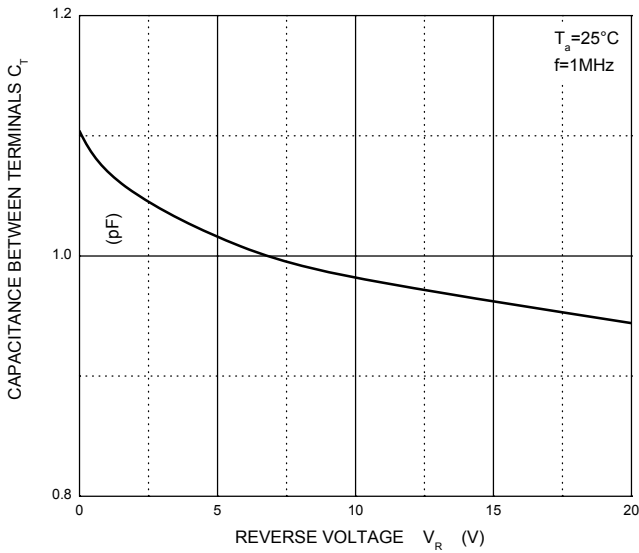
Typical Characteristic Curves



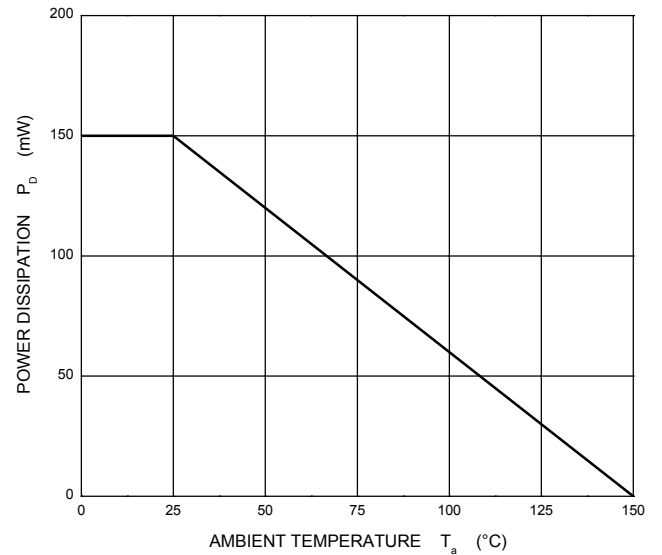
Forward Characteristics



Reverse Characteristics

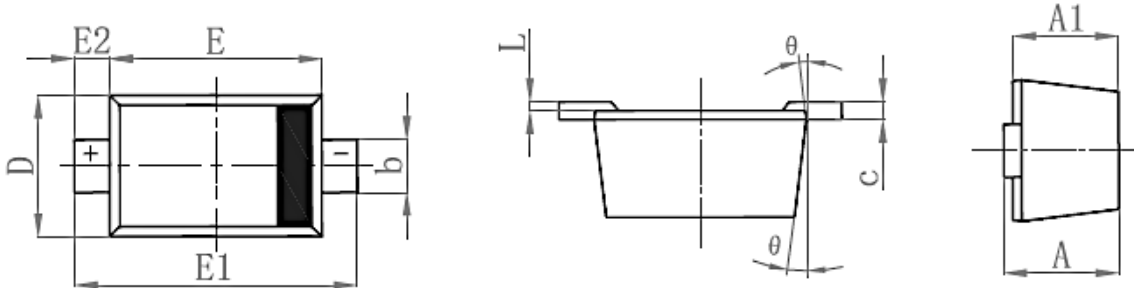


Capacitance Characteristics



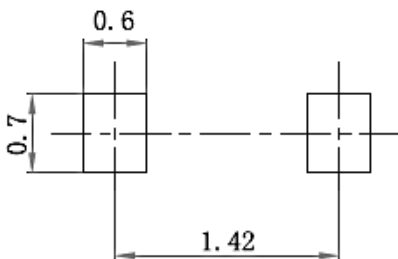
Power Derating Curve

Package Outline Dimensions SOD-523



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	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purpose only