

FEATURES

Low forward voltage

Low reverse current

SOD-523

MARKING: S3
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25 °C

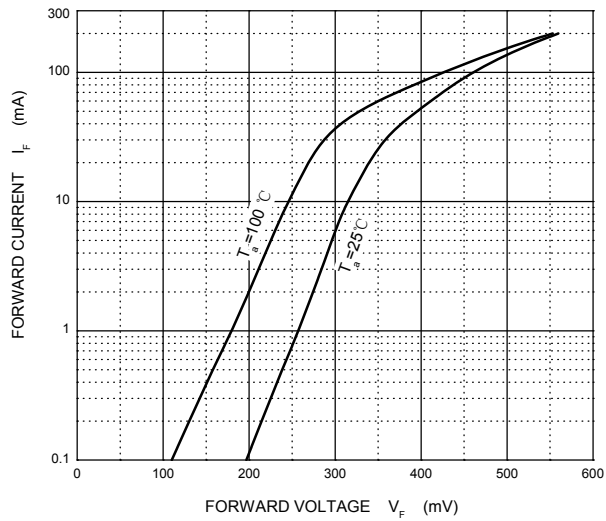
Parameter	Symbol	Limit	Unit
Peak reverse voltage	V_{RM}	45	V
DC reverse voltage	V_R	40	V
Maximum (peak) forward current	I_{FM}	300	mA
Average forward current	I_O	100	mA
Non-repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	1000	mA
Power dissipation	P_D	150	mW
Operating Junction Temperature Range	T_J	-40 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Electrical Ratings @Ta=25°C

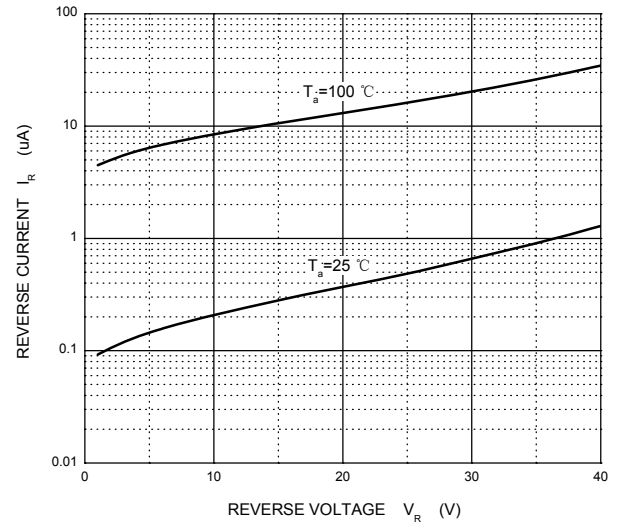
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_{F1}		0.28		V	$I_F=1mA$
	V_{F2}		0.36		V	$I_F=10mA$
	V_{F3}		0.54	0.60	V	$I_F=50mA$
Reverse current	I_R			5	μA	$V_R=10V$
Total capacitance	C_T		18	25	pF	$V_R=0, f=1MHz$

Typical Characteristics

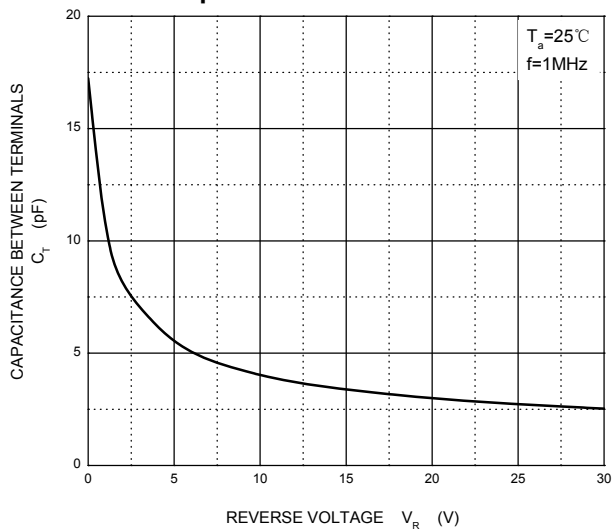
Forward Characteristics



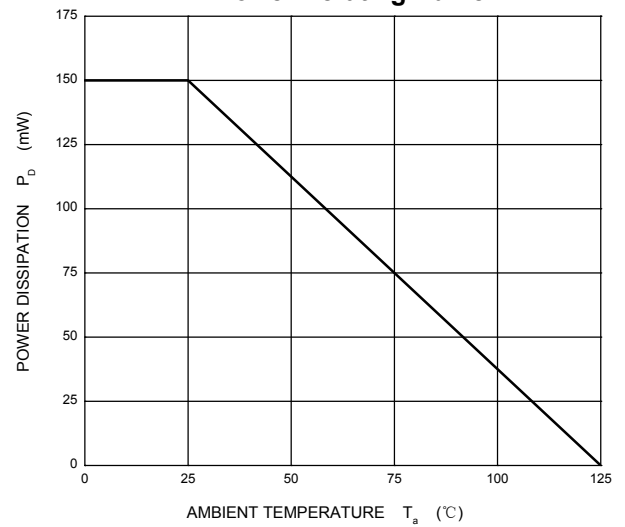
Reverse Characteristics



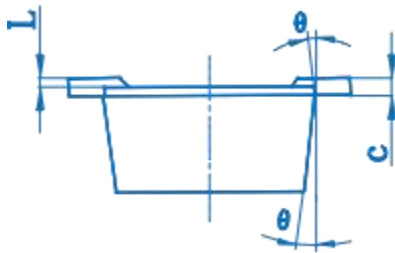
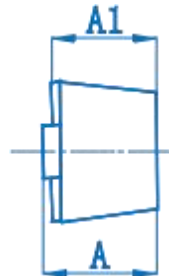
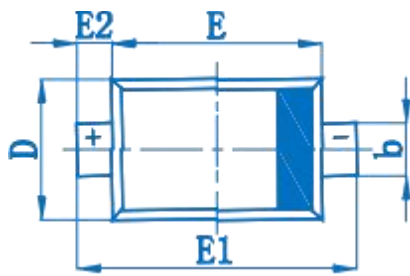
Capacitance Characteristics



Power Derating Curve

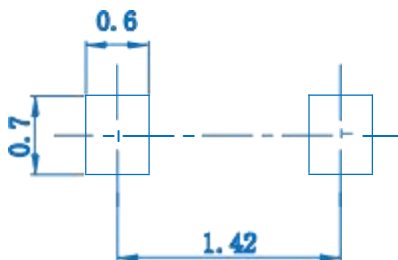


SOD-523 Package Outline Dimensions



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	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	

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.