

FEATURES

- I For low-loss,fast-recovery, meter protection, bias isolation and clamping application
- I Integrated diffused guard ring
- I Low forward

SOD-523

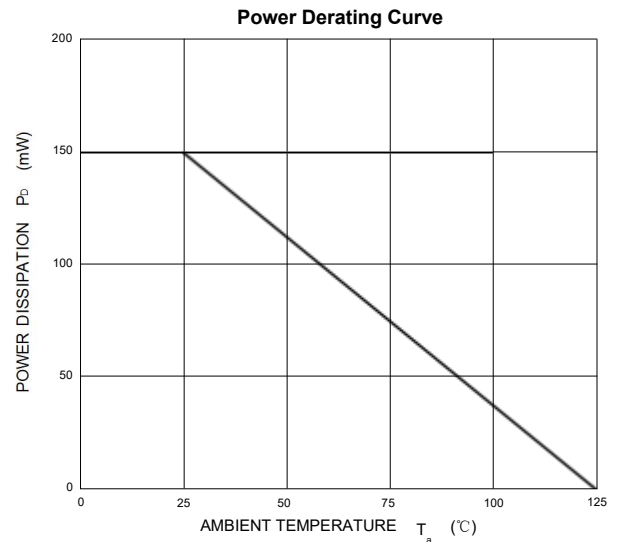
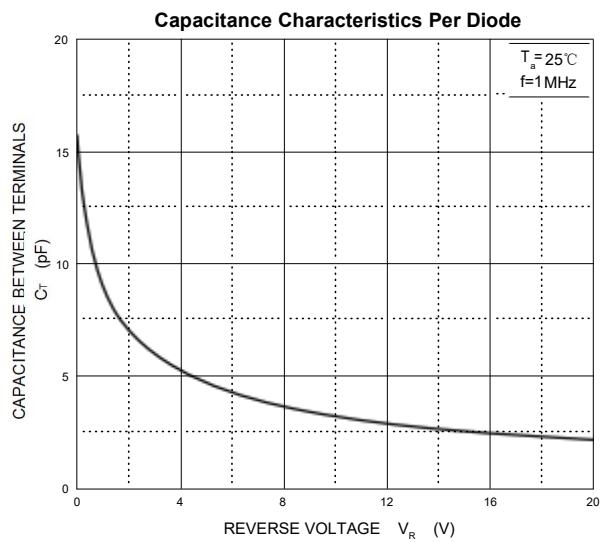
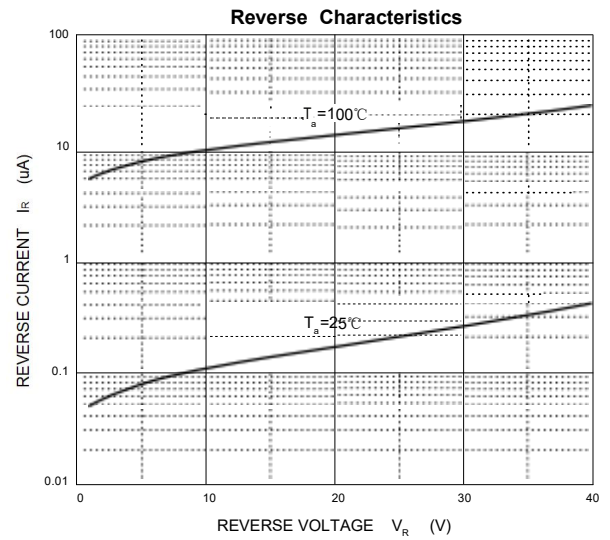
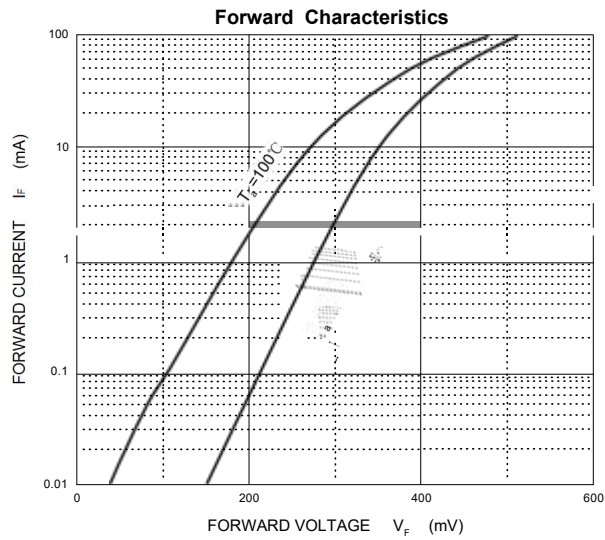
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Maximum Ratings (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak reverse voltage DC reverse	V_{RM} V_R	40	V
Non-repetitive Peak surge forward current @t=8.3ms	I_{FSM}	0.8	A
Mean rectifying current	I_o	0.25	A
Power Dissipation	P_D	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	667	°C/W
Operating Junction Temperature Range	T_j	-40~+125	°C
Storage Temperature Range	T_{stg}	-55~+150	°C

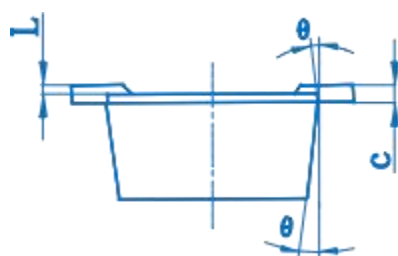
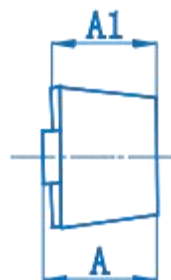
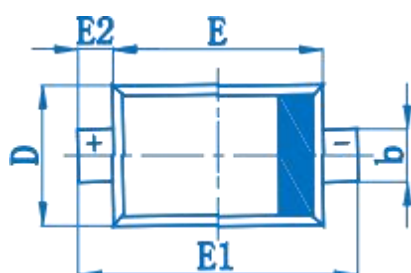
Electrical Ratings (T_a=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	V_R	40			V	$I_R=10\mu A$
Forward voltage	V_F			350 430 520 750	mV	$I_F=1mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$
Reverse current	I_R			2	μA	$V_R=30V$
Capacitance between terminals	C_T			6	pF	$V_R=1V, f=1MHz$
Reverse recovery time	t_{rr}			5	ns	$I_F=10mA, I_R=10mA,$ $I_R=1mA, R_L=100\Omega$

Typical Characteristics

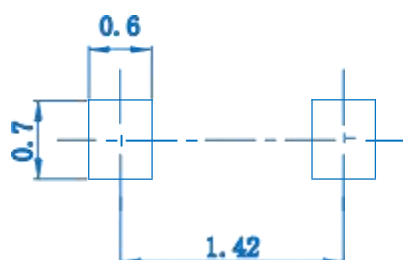


SOD-523 Package Outline Dimensions



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.