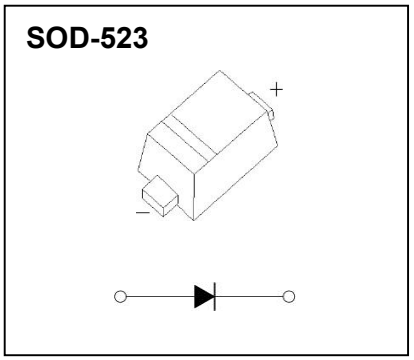
CAN CIRCLE SEMI

SOD-523 Plastic-Encapsulate Diodes

CSD103S523 SCHOTTKY BARRIER DIODE



FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Low Reverse Recovery Time
- Low Reverse Capacitance

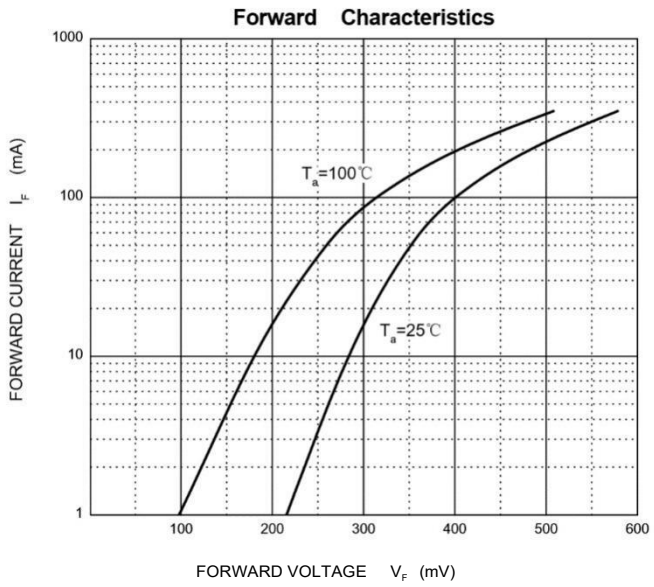
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

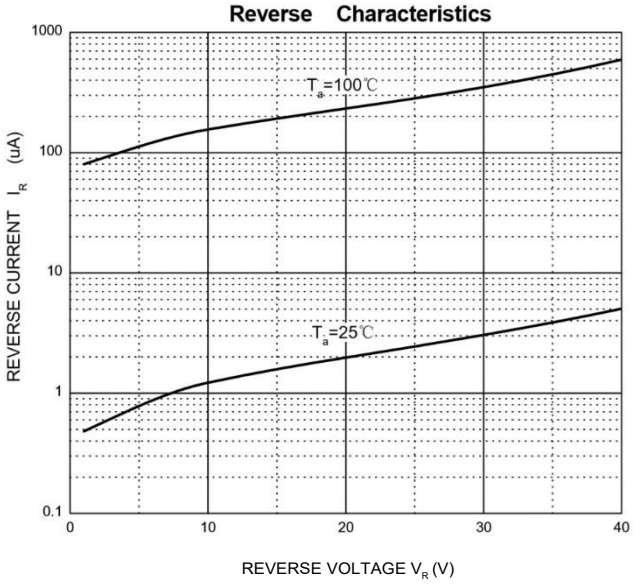
Symbol	Parameter	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	40	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	28	V
I_{FM}	Forward Continuous Current	350	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current@t=8.3ms	2	A
P_D	Power Dissipation	150	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	667	℃/W
T_j	Junction Temperature	125	℃
T_{stg}	Storage Temperature	-55~+150	℃

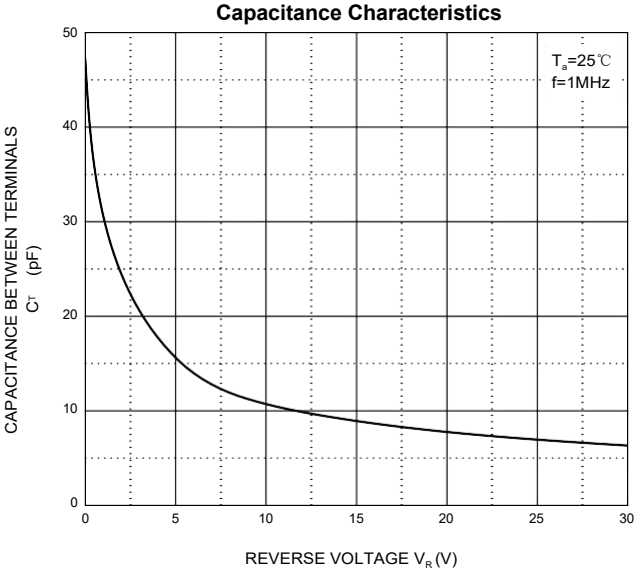
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

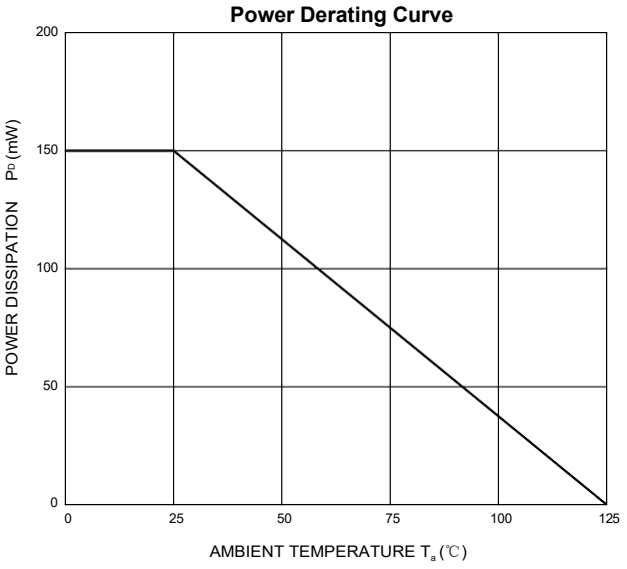
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=100μA	40			V
Reverse current	I_R	V_R=30V			5	μA
		V_R=20V			2	
		V_R=10V			1	
Forward voltage	V_F	I_F=1mA		0.27		V
		I_F=5mA		0.32		
		I_F=20mA			0.37	
		I_F=200mA			0.6	
Total capacitance	C_{tot}	V_R=0V,f=1MHz		50		pF
Reverse recovery time	t_{rr}	I_F= I_R=200mA, I_{rr}=0.1×I_R, R_L=100Ω		10		ns

Typical Characteristics

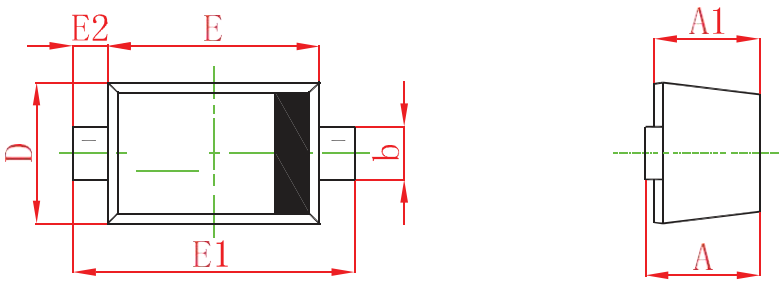


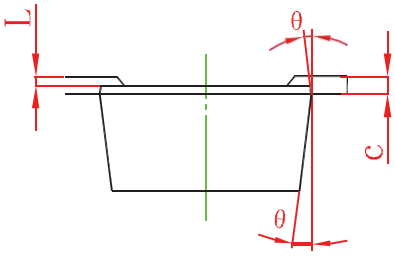






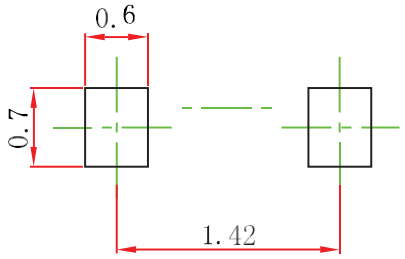
SOD-523 Dimensions Size





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
0	7° REF		7° REF	

SOD-523 Suggested Pad Layout



Note:
1. Controlling dimension:in millimeters.
2. General tolerance:±0.05mm.
3. The pad layout is for reference purposes only.

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