

CSD1040S523

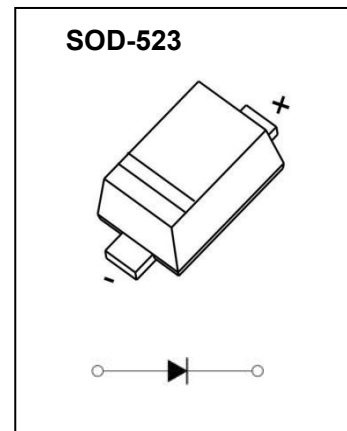
SCHOTTKY BARRIER DIODE

Feature

- Low Forward Voltage Drop
- Very Small SMD Package

Application

- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications



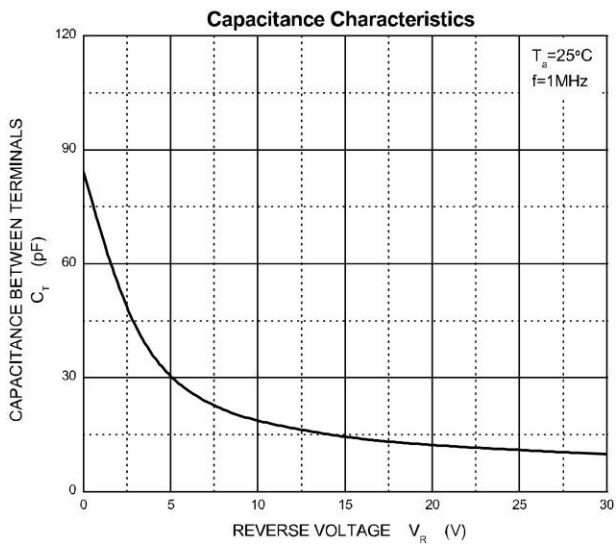
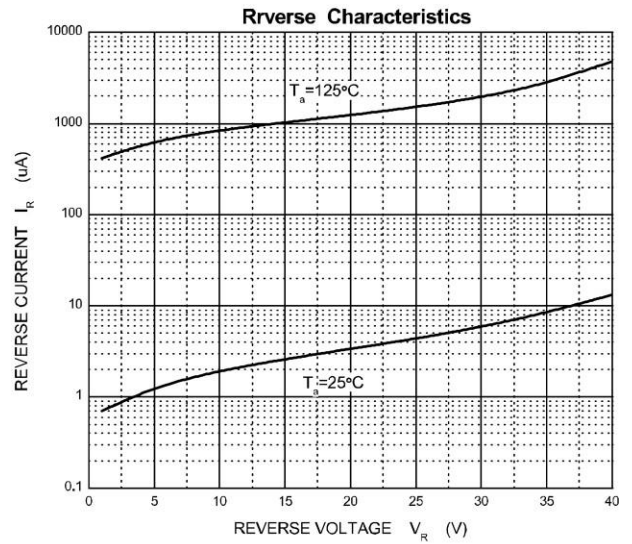
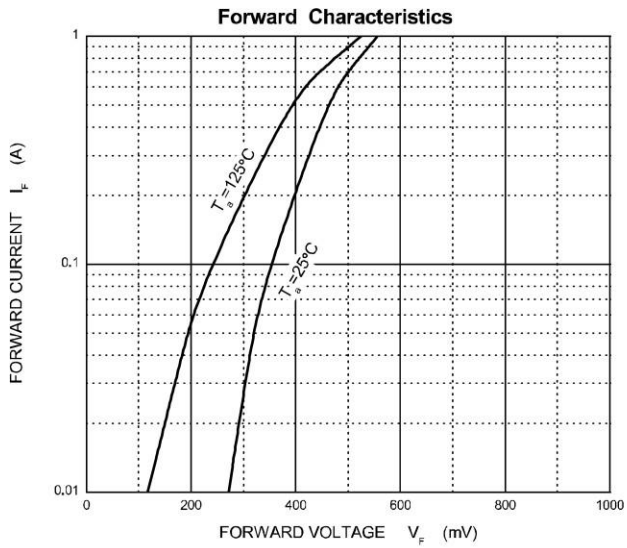
ABSOLUTE MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
DC reverse voltage	V _R	40	V
Mean rectifying current	I _O	1	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I _{FSM}	7	A
Power Dissipation	P _D	0.5	W
Thermal Resistance from Junction to Ambient	R _{θJA}	250	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

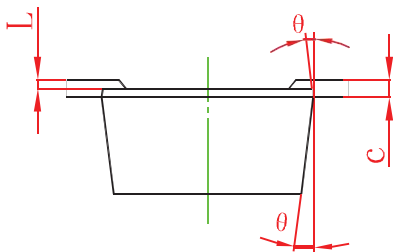
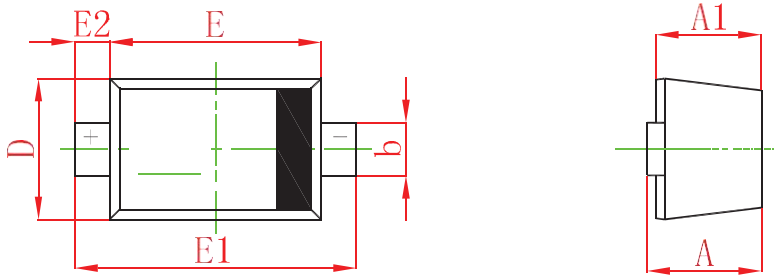
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	V _{BR}	I _R =1mA	40			V
Reverse current	I _R	V _R =40V		10	40	μA
Forward voltage	V _F	I _F =0.1A		0.35	0.38	V
		I _F =0.2A		0.37	0.40	V
		I _F =0.5A		0.42	0.49	V
		I _F =0.7A		0.47	0.55	V
		I _F =1A		0.51	0.61	V
Total capacitance	C _{tot}	V _R =10V, f=1MHz		19		pF

Typical Characteristics

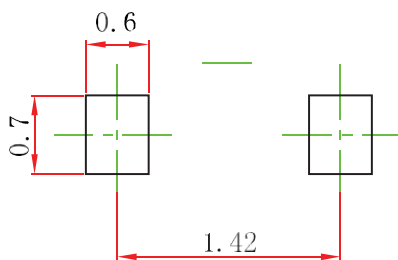


SOD-523 Package Outline Dimensions



Sym ol	imensions In Millimeters		imensions 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: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

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