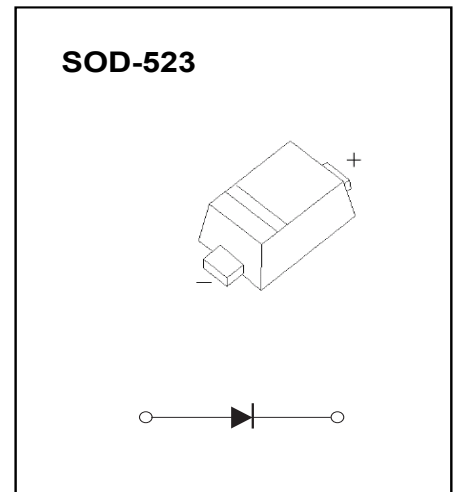
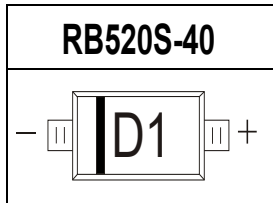


SOD-523 Plastic-Encapsulate Diodes**RB520S-40****SCHOTTKY BARRIER DIODE****FEATURES**

- High reliability
- Low I_R

MARKING**MAXIMUM RATINGS** ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

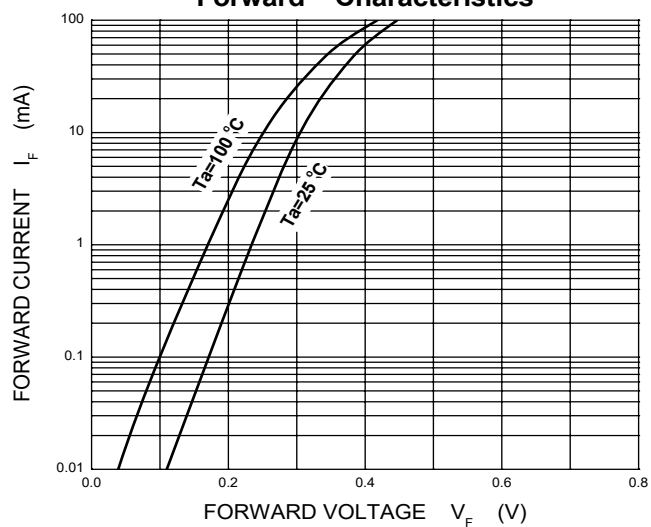
Parameter	Symbol	Limit	Unit
DC reverse voltage	V_R	40	V
Mean rectifying current	I_O	0.2	A
Non-repetitive peak forward surge current@ $t=8.3\text{ms}$	I_{FSM}	1	A
Power Dissipation	P_D	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	667	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-40~+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

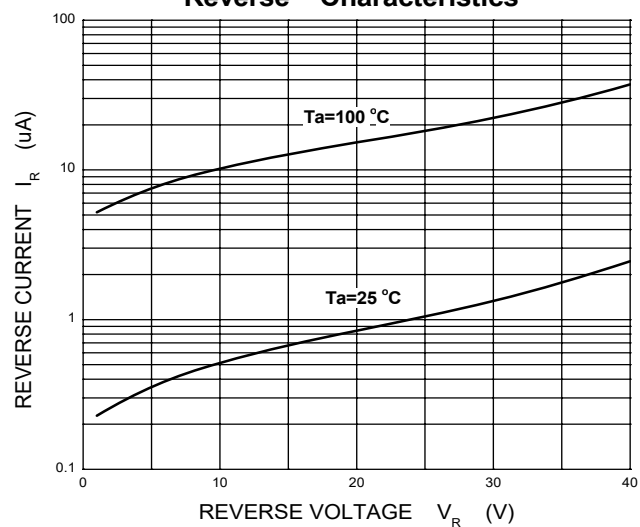
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F		0.304 0.446	0.39 0.55	V	$I_F=10\text{mA}$ $I_F=100\text{mA}$
Reverse current	I_R		0.605 2.837	1 10	μA	$V_R=10\text{V}$ $V_R=40\text{V}$

Typical Characteristics

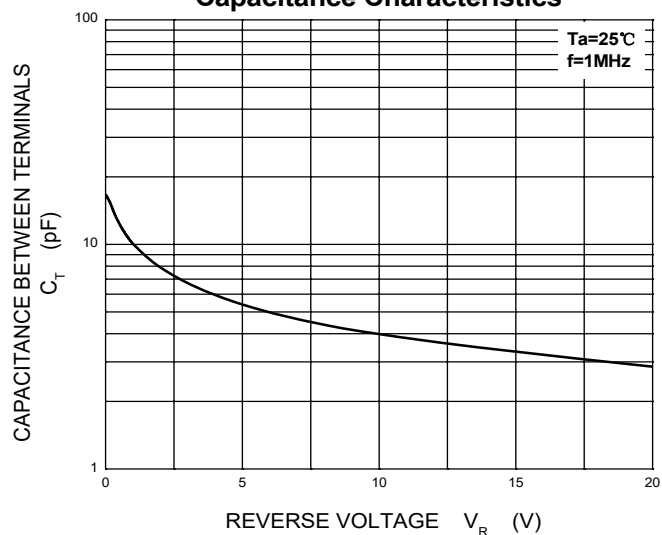
Forward Characteristics



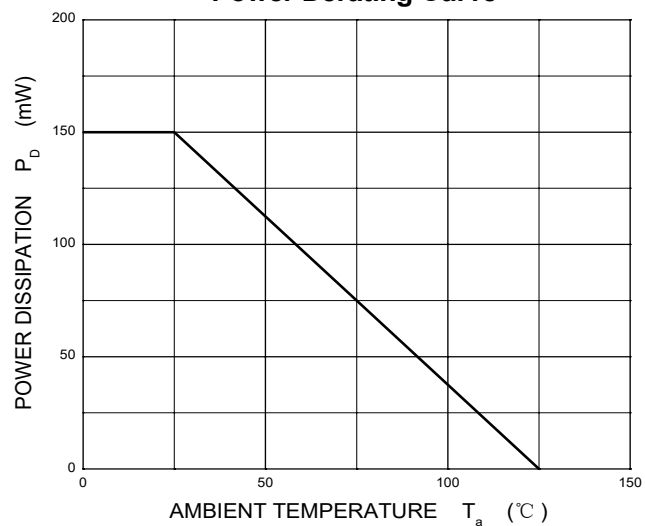
Reverse Characteristics



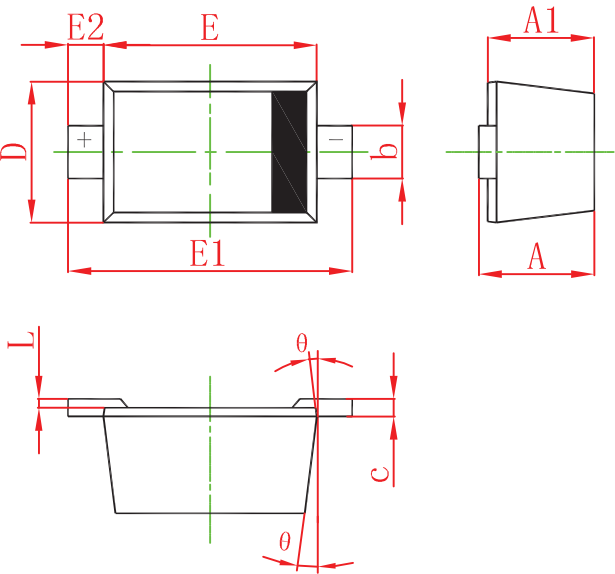
Capacitance Characteristics



Power Derating Curve

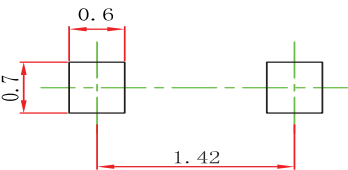


Package Outline Dimensions (SOD-523)



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 (SOD-523)



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