

SOD-323 Plastic-Encapsulate Diodes

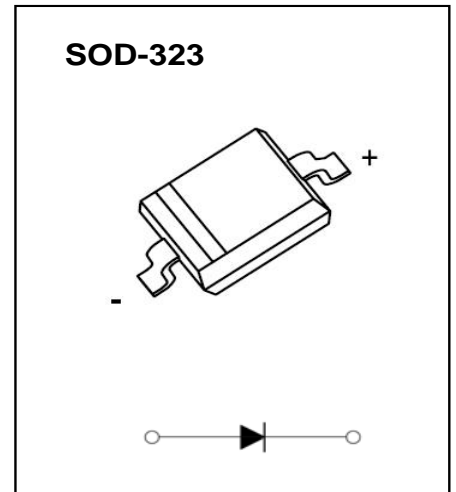
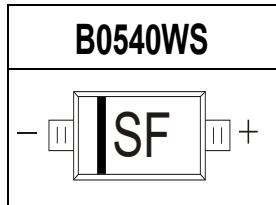
B0540WS

SCHOTTKY BARRIER DIODE

FEATURES

- Low Forward Voltage Drop
- High Conductance

MARKING



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

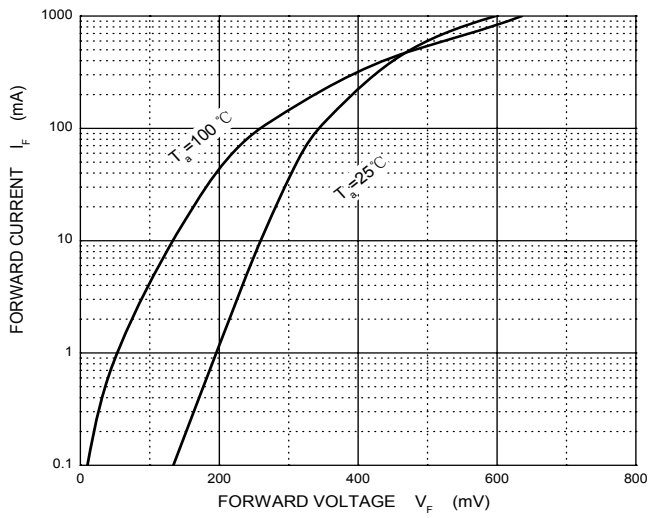
Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R		
RMS reverse voltage reverse voltage (DC)	$V_{R(RMS)}$	28	V
Average rectified output current	I_o	0.5	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	5.5	A
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	-40 ~ +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$
Voltage rate of change	dv/dt	1000	$\text{V}/\mu\text{s}$

9 @ 7 HF = 7 5 @ 7 < 5 F 5 7 H 9 F = GH 7 G ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

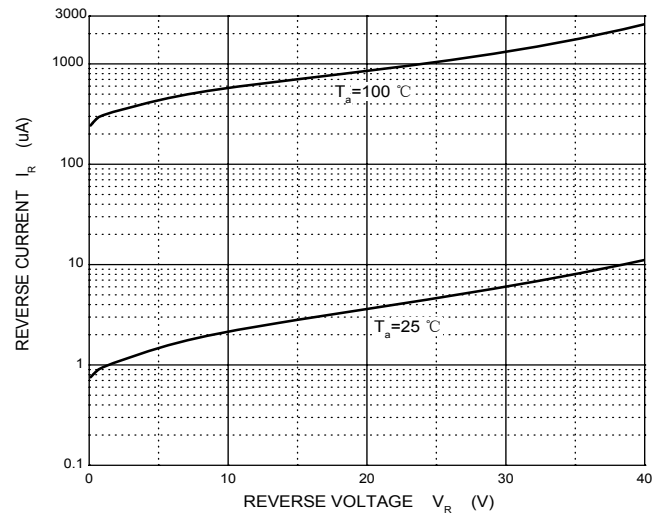
	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=20\mu\text{A}$	40		V
Reverse current	I_R	$V_R=20\text{V}$		10	uA
		$V_R=40\text{V}$		20	
Forward voltage	V_F	$I_F=0.5\text{A}$		0.51	V
		$I_F=1.0\text{A}$		0.62	
Capacitance between terminals	C_T	$V_R=0, f=1\text{MHz}$		170	pF

Typical Characteristics

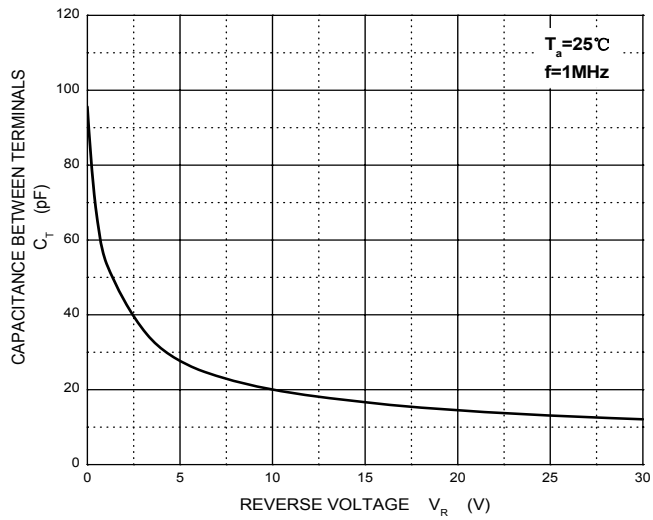
Forward Characteristics



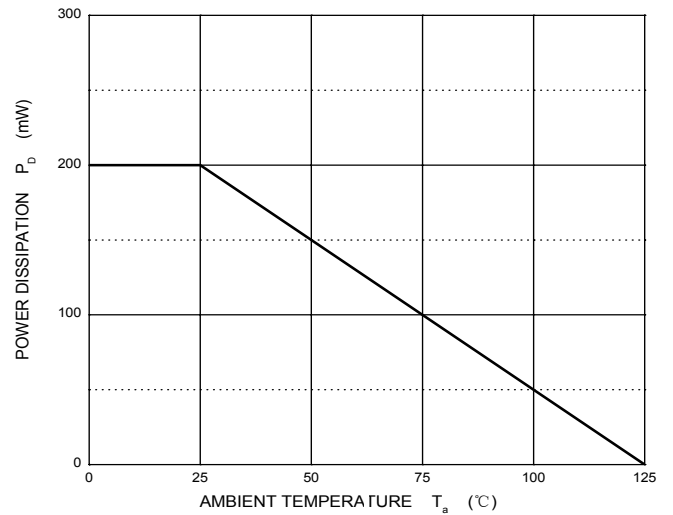
Reverse Characteristics



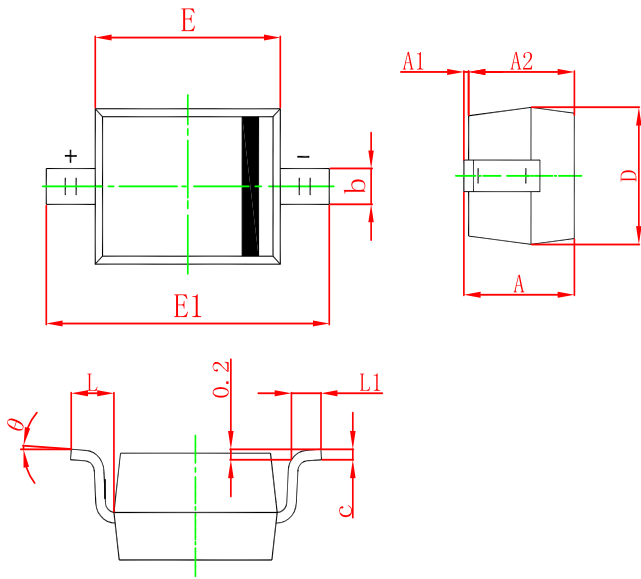
Capacitance Characteristics



Power Derating Curve

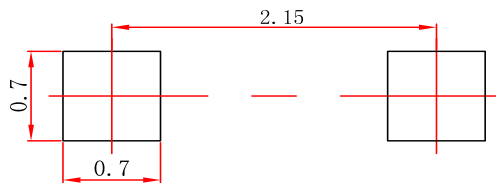


Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout (SOD-323)



Note:

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