

**SOD-323 Plastic-Encapsulate Diodes**

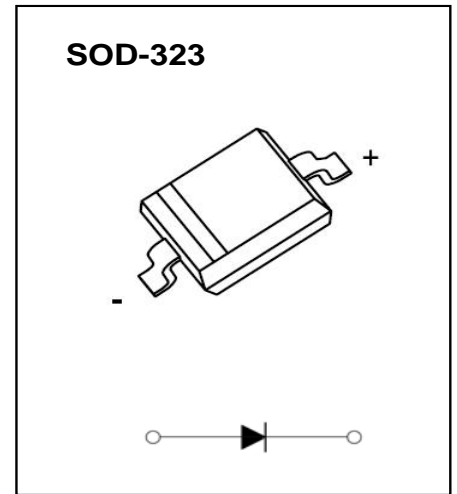
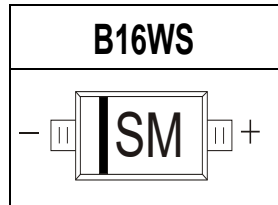
**B16WS**

SCHOTTKY BARRIER DIODE

**FEATURES**

- Low Forward Voltage Drop
- High Surge Current Capability

**MARKING**



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

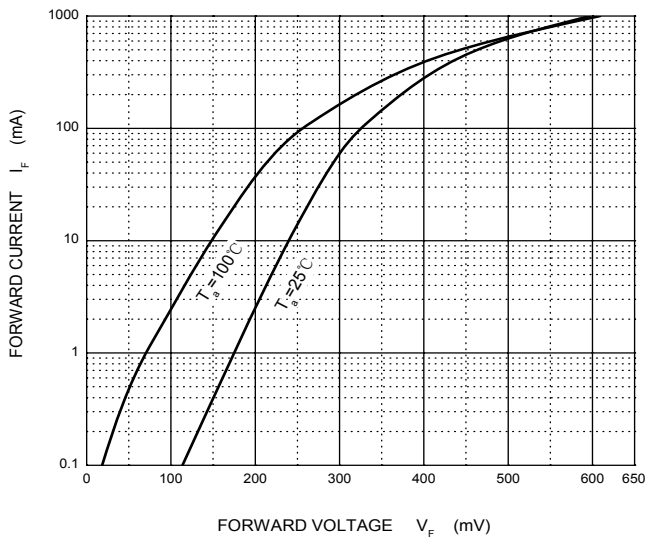
Symbol	Parameter	Value	Unit
$V_{RRM}$	Maximum recurrent peak reverse voltage	60	V
$V_{RMS}$	Maximum RMS voltage	42	
$V_{DC}$	Maximum DC blocking voltage	60	
$I_F$	Continuous forward current	1	A
$I_{FSM}$	Non-repetitive Peak forward surge current@ $t=8.3\text{ms}$	10	
$P_{tot}$	Total power dissipation	250	mW
$R_{\theta JA}$	Thermal resistance junction to ambient air	400	$^{\circ}\text{C}/\text{W}$
$T_J$	Operating Junction Temperature Range	-40 ~ +125	$^{\circ}\text{C}$
$T_{stg}$	storage Temperature Range	-55 ~ +150	$^{\circ}\text{C}$

**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)

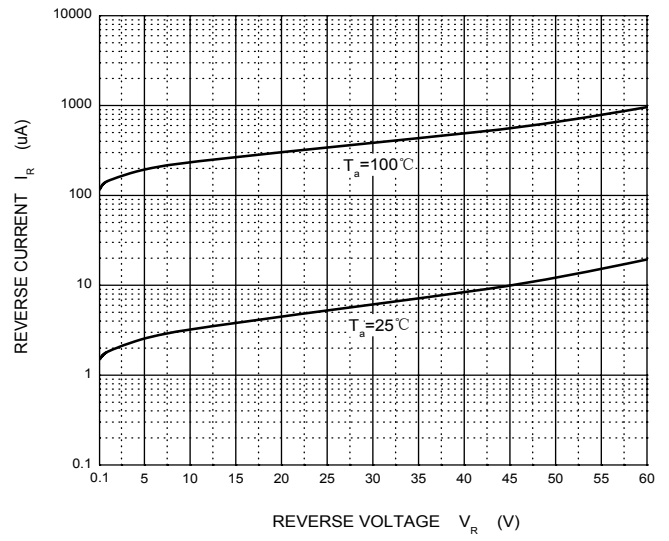
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum instantaneous forward voltage	$V_F$	$I_F=1\text{A}$			0.7	V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$V_R=60\text{V}$			0.1	mA
Total capacitance	$C_{tot}$	$V_R=4\text{V}, f=1\text{MHz}$			120	pF

## Typical Characteristics

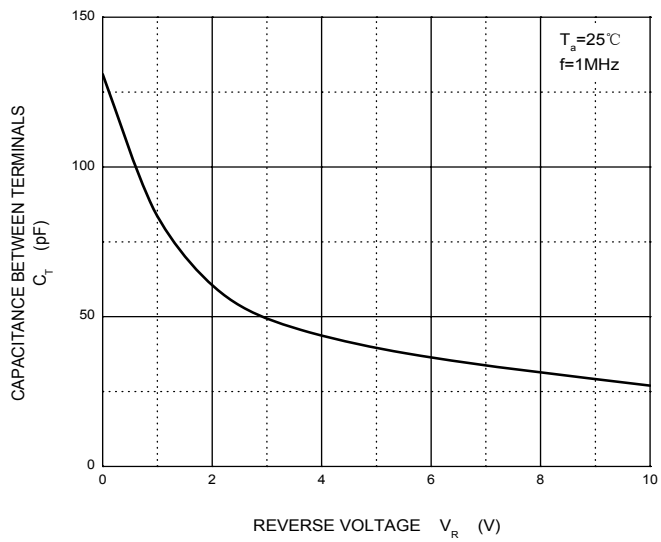
**Forward Characteristics**



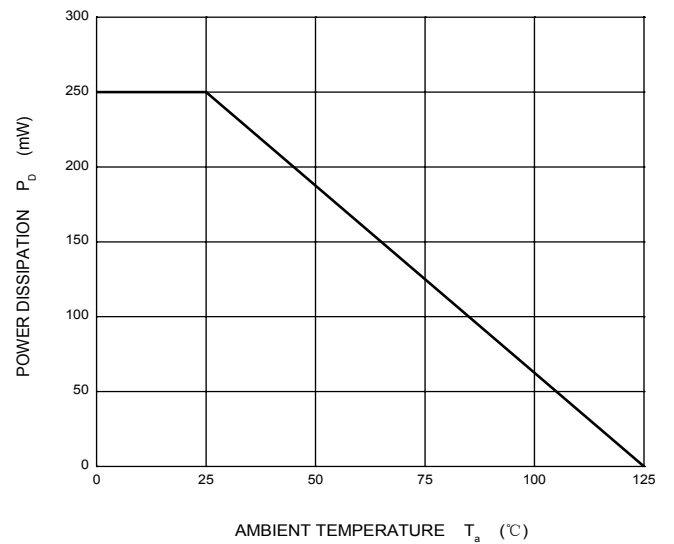
**Reverse Characteristics**



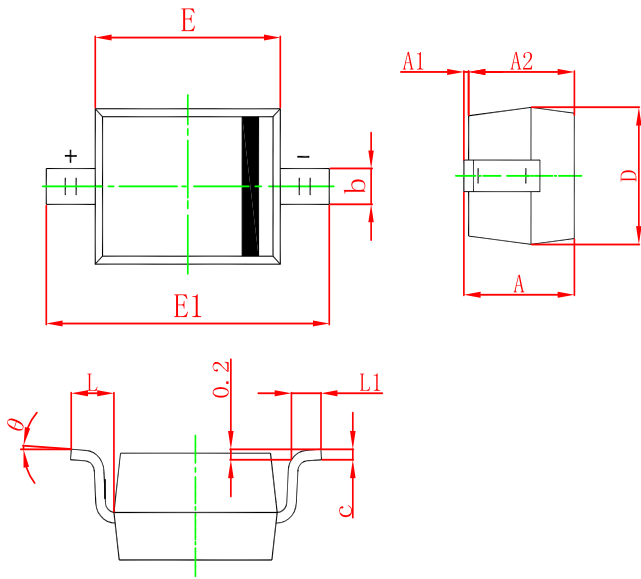
**Capacitance Characteristics**



**Power Derating Curve**

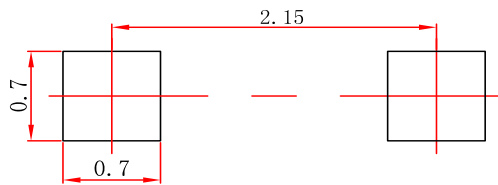


## Package Outline Dimensions (SOD-323)



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:  $\pm 0.05$ mm.
3. The pad layout is for reference purposes only.