



Features

- Guard ring protection
- Low forward voltage drop
- For use in low voltage, high frequency inverters
- High surge current capability



SOD-323



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BSR106WS	SOD-323	SM	3000

Maximum Ratings (Ta=25°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=8.3ms	10	
P_{tot}	Total power dissipation	250	mW
$R_{\theta JA}$	Thermal resistance junction to ambient air	400	°C/W
T_J	Operating Junction Temperature Range	-40 ~ +125	°C
T_{stg}	storage Temperature Range	-55 ~ +150	°C

Electrical Characteristics(Ta=25°C unless otherwise specified)

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

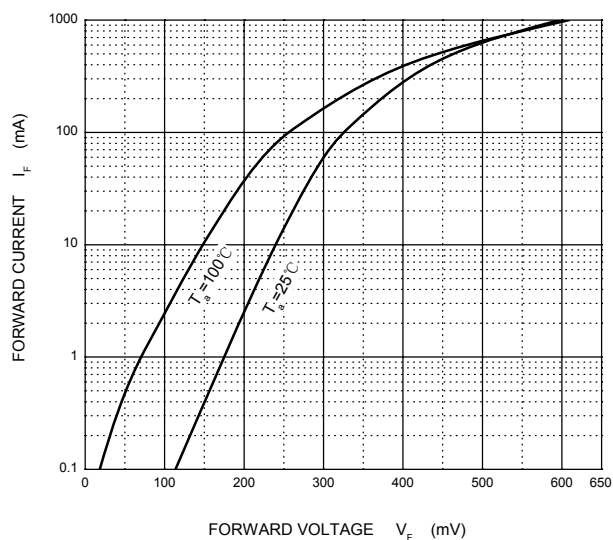
Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

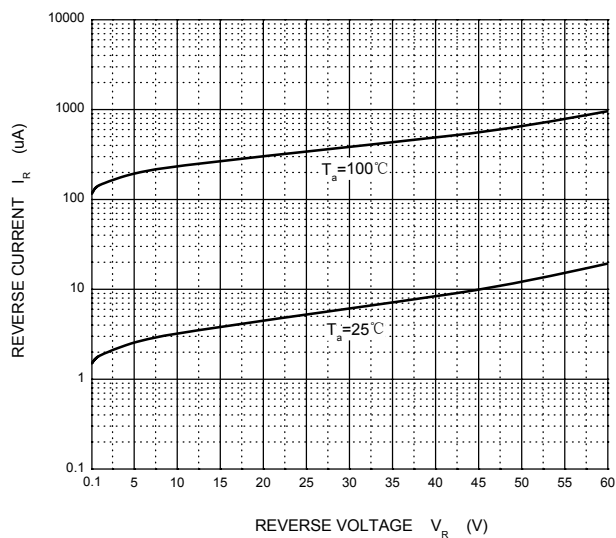


Typical Characteristics

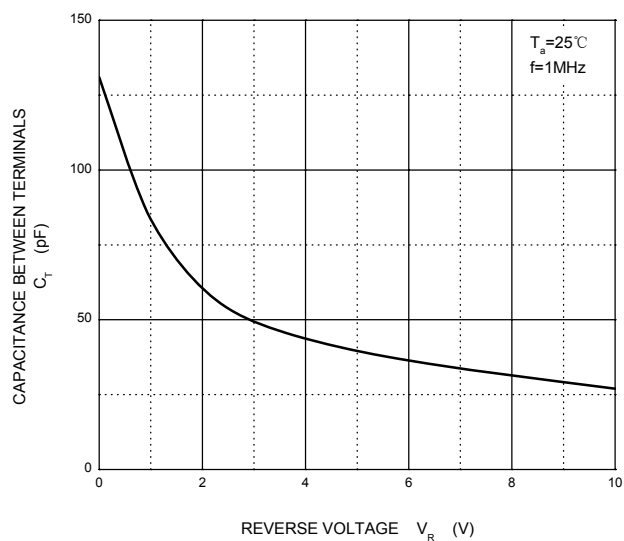
Forward Characteristics



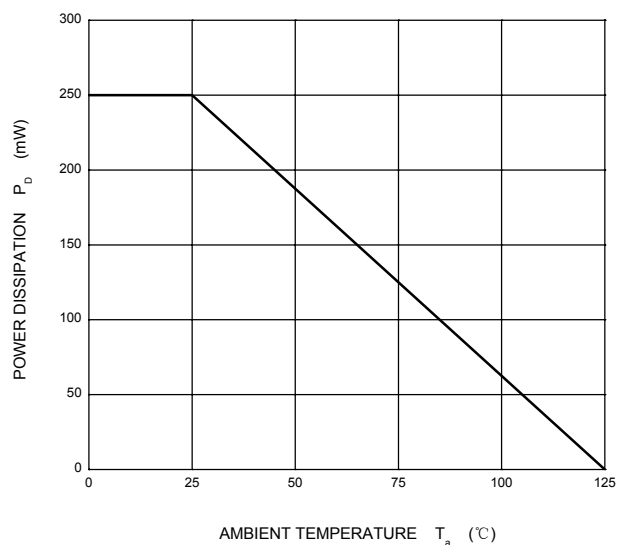
Reverse Characteristics



Capacitance Characteristics

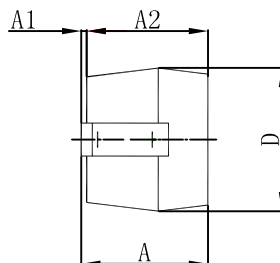
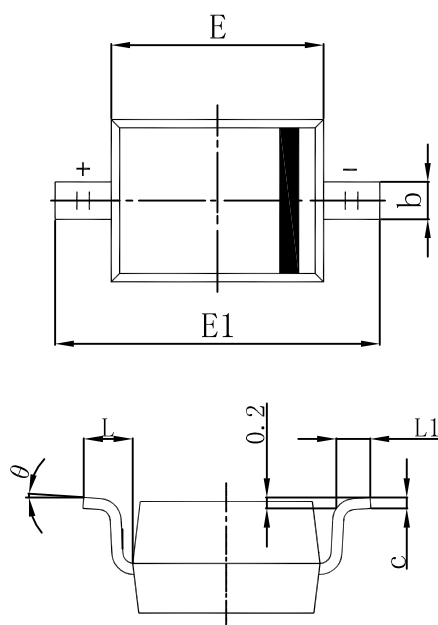


Power Derating Curve



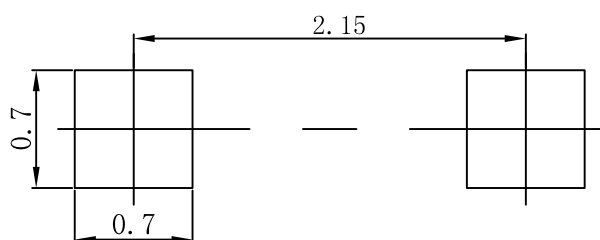


SOD-323 Package Outline Dimensions



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°

SOD-323 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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