

SOD-323



MARKING:S51

FEATURES

- Small surface mounting type
- High speed
- High reliability with high surge current handing capability

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C

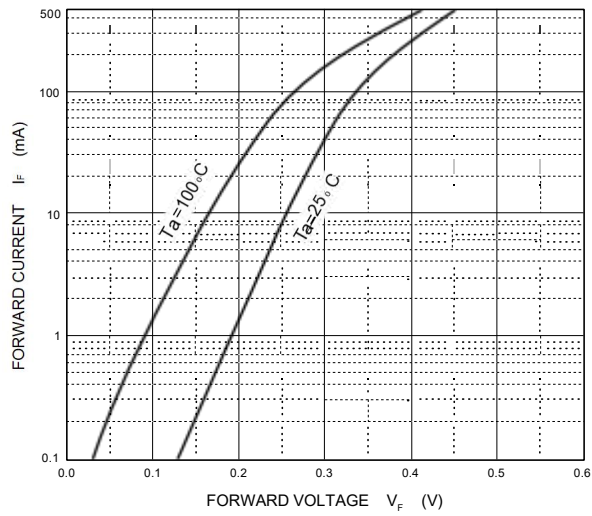
Parameter	Symbol	Limit	Unit
Peak reverse voltage	V_{RM}	25	V
DC reverse voltage	V_R	20	V
Average rectified output current	I_O	300	mA
Peak forward current	I_{FM}	700	mA
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	T_J	-40 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Electrical Ratings @T_A=25°C

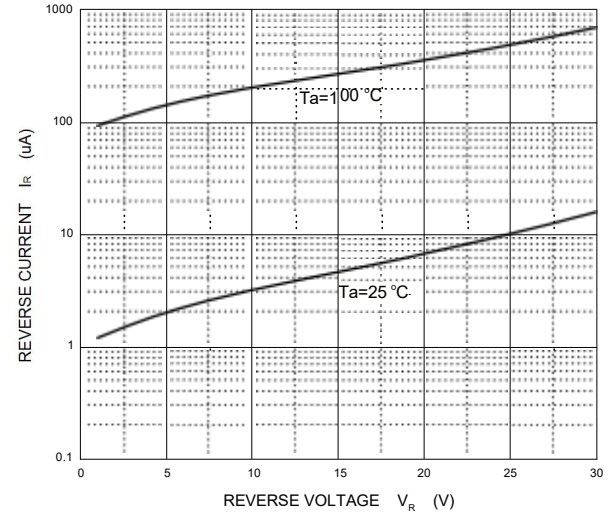
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_{F1}		0.16		V	$I_F=1mA$
	V_{F2}		0.22		V	$I_F=10mA$
	V_{F3}		0.38	0.45	V	$I_F=300mA$
Reverse current	I_R			50	μA	$V_R=20V$
Capacitance between terminals	C_T		46		pF	$V_R=0V, f=1MHZ$

Typical Characteristics

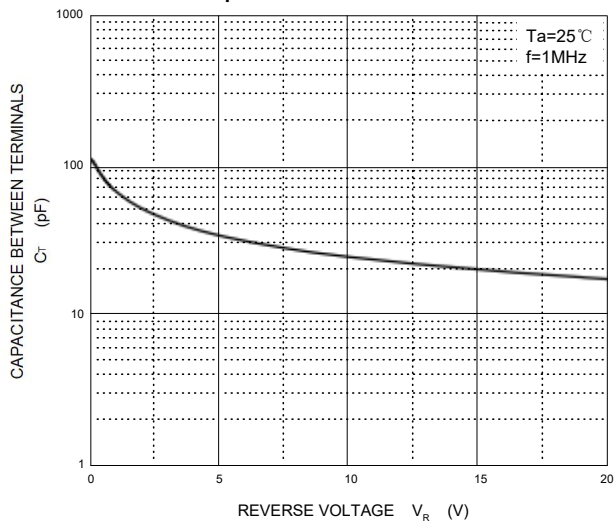
Forward Characteristics



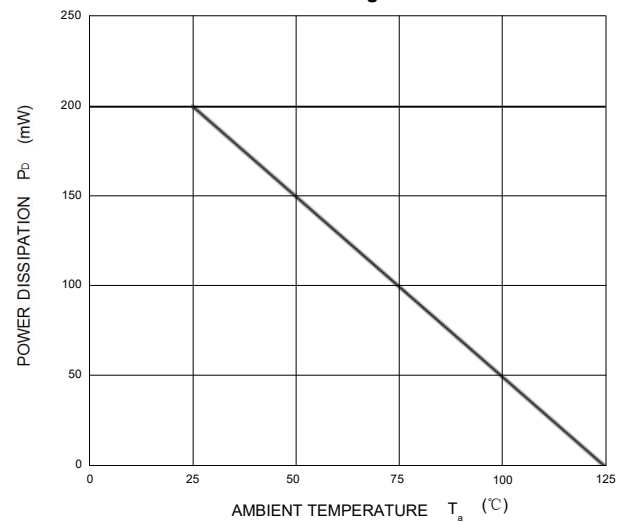
Reverse Characteristics

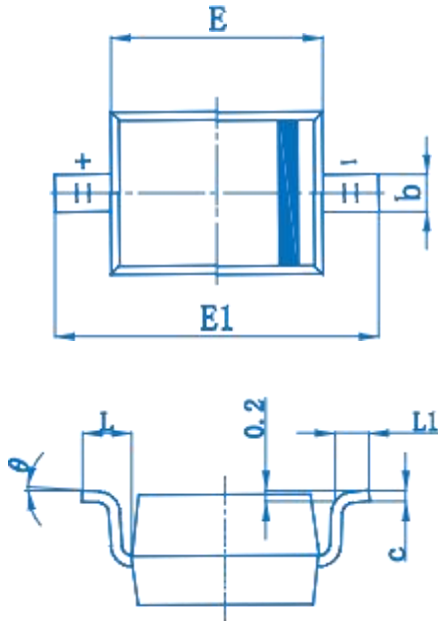


Capacitance Characteristics

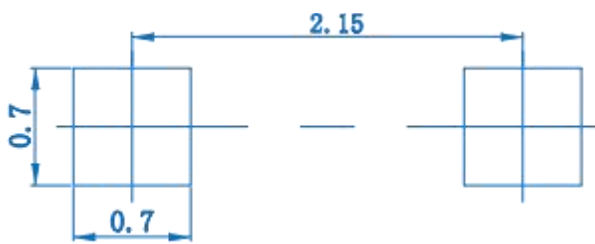


Power Derating Curve



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.