

SOD-323

Features

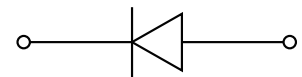
- V_R 120V/200V/250V
- $I_{F(AV)}=200mA$
- Power Dissipation of 250mW
- Fast switching speed
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

For use in low voltage high frequency circuit signals.

Mechanical Data

- Case: SOD-323
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	BAV19WS	BAV20WS	BAV21WS
Maximum repetitive peak reverse voltage	V_{RRM}	V	120	200	250
Maximum RMS Voltage	V_{RMS}	V	100	150	200
Reverse Breakdown voltage @ $I_R=100\mu A$	$V_{(BR)R}$	V	120	200	250
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	200		
Repetitive peak forward current	I_{FRM}	mA	625		
Non-Repetitive Peak forward surge current @ $t_p=1.0\mu s$	I_{FSM}	A	2.5		
Non-Repetitive Peak forward surge current @ $t=1.0s$			0.5		
Power Dissipation	P_d	mW	250		
Storage temperature	T_{stg}	°C	-55 ~+150		
Junction temperature	T_j	°C	-55 ~+150		
Typical thermal resistance	$R_{\theta J-A}$	°C /W	500		

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	BAV19WS	BAV20WS	BAV21WS
Maximum instantaneous forward voltage	$I_F=100mA$	V_F	V	1.0		
	$I_F=200mA$			1.25		
Reverse Leakage Current	$V_R=V_{RMS}$	I_R	nA	100		
Total capacitance	$V_R=0V, f=1MHz$	C_T	pF	5.0		
Maximum reverse recovery time	$I_F=I_R=30mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$	T_{rr}	ns	50		

► **Ratings And Characteristics Curves** ($T_a=25^\circ\text{C}$ Unless otherwise specified)

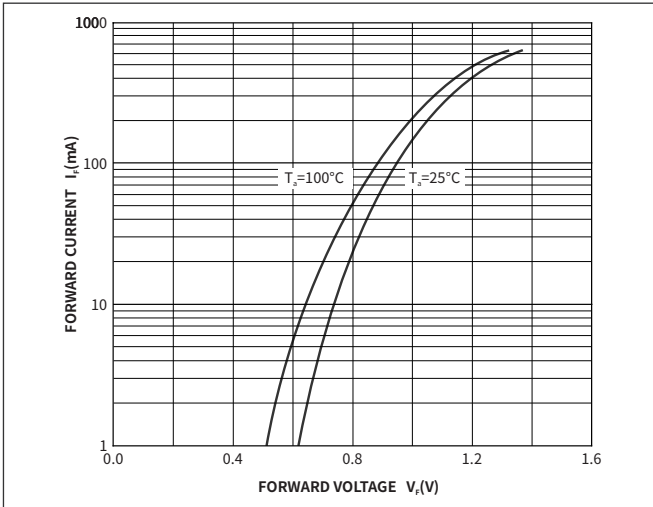


Fig.1 Typical Instantaneous Forward Characteristics

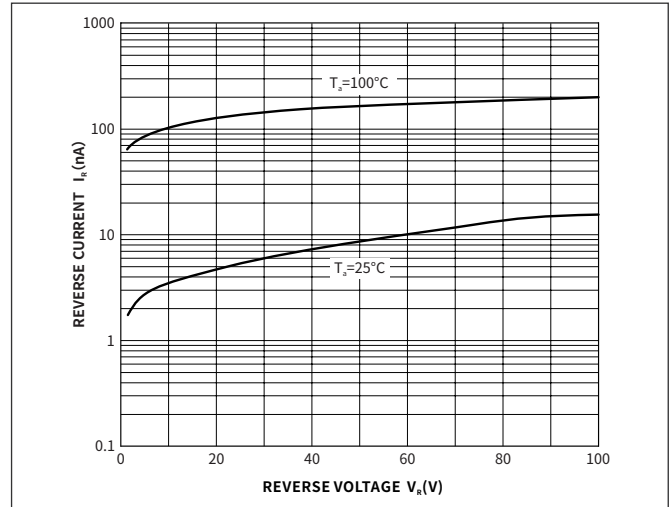


Fig.2 Typical Reverse Characteristics

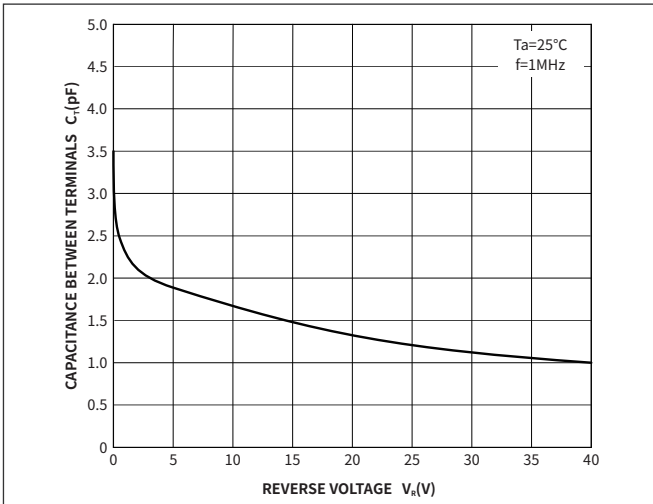


Fig.3 Typical Junction Capacitance

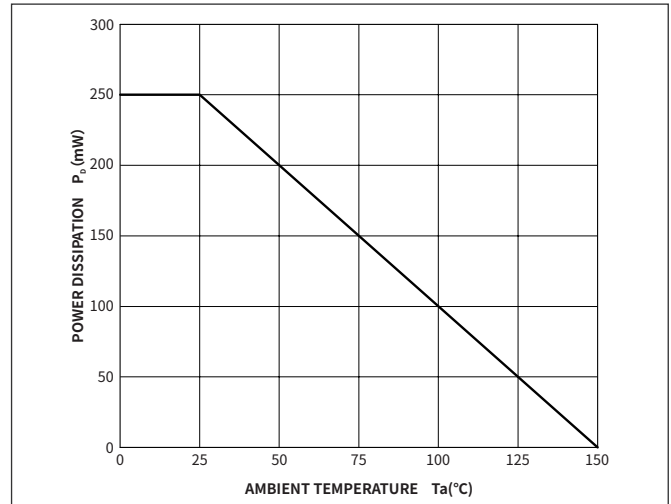


Fig.4 Power Derating Curve

Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	30000	120000	7"

Package Outline Dimensions (SOD-323)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.60	1.80	0.063	0.071
B	0.25	0.40	0.010	0.016
C	2.30	2.80	0.091	0.110
D	0.80	1.10	0.031	0.043
D ₁	0.80	0.90	0.031	0.035
E	1.20	1.40	0.047	0.055
F	0.08	0.18	0.003	0.007
L	0.475REF		0.019REF	
L ₁	0.25	0.40	0.010	0.016
H	-	0.14	-	0.006

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.80	-	0.031	-
K	-	1.40	-	0.055
M	0.80	-	0.031	-