

SOD-323 Fast Switching Diodes

Features

- Fast Switching Device ($T_{RR} < 4\text{nS}$)
- Power Dissipation of 250mW
- High Stability and High Reliability
- Low reverse leakage

Applications

Small signal switching
Ultra high speed switching application

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

Function Diagram

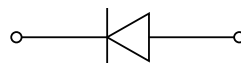
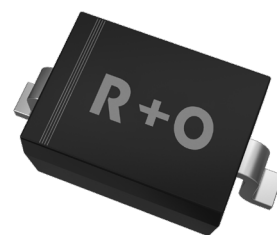
Reverse Voltage

100 V

Forward Current

0.25 Ampere

SOD-323



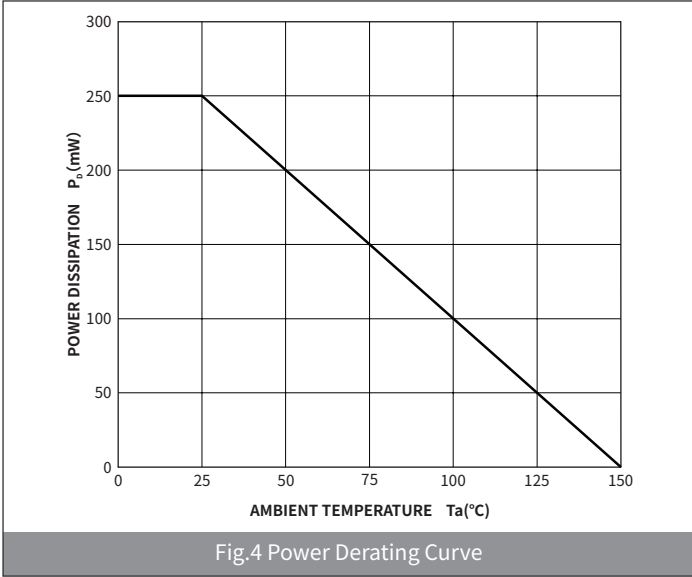
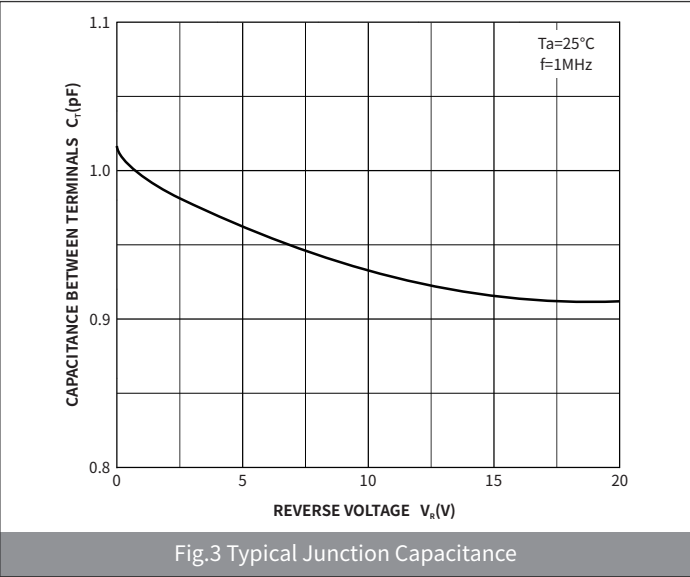
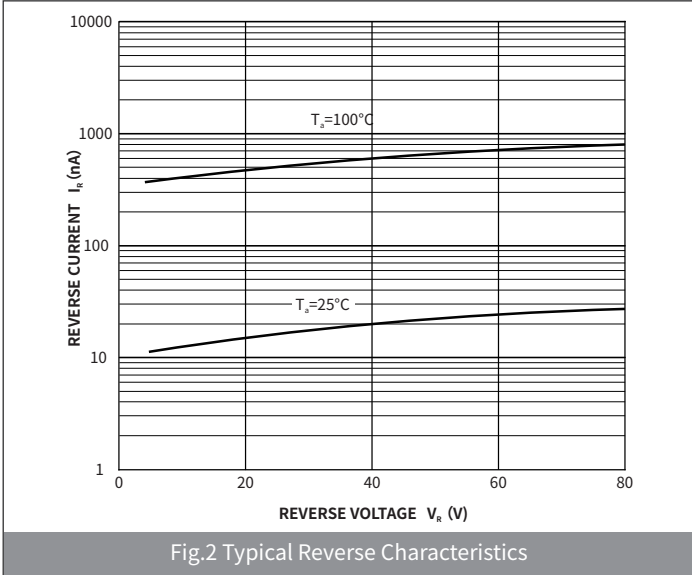
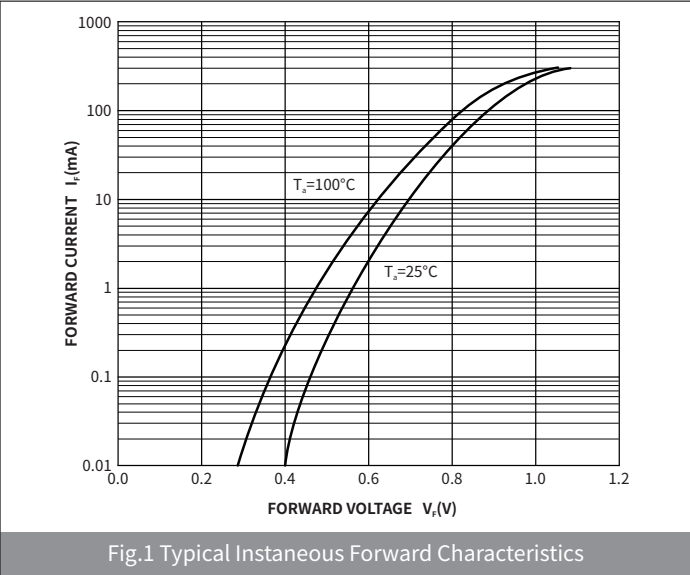
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	V_{RRM}	V	100
Maximum RMS Voltage	V_{RMS}	V	75
Reverse Breakdown voltage @ $I_R=100\mu\text{A}$	$V_{(BR)R}$	V	100
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	250
Repetitive peak forward current	I_{FRM}	mA	500
Non-Repetitive Peak forward surge current @ $t_p=1.0\text{ms}$	I_{FSM}	A	2.0
Power Dissipation	P_d	mW	250
Storage temperature	T_{stg}	°C	-55 ~+150
Junction temperature	T_j	°C	150
Typical thermal resistance	$R_{\theta J-A}$	°C /W	500

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Type	Max
Maximum instantaneous forward voltage	$I_F=1.0\text{mA}$	V_F	V	—	—	0.715
	$I_F=10\text{mA}$			—	—	0.855
	$I_F=50\text{mA}$			—	—	1.0
	$I_F=150\text{mA}$			—	—	1.25
Reverse Leakage Current	$V_R=25\text{V}$	I_{R1}	nA	—	—	30
	$V_R=75\text{V}$	I_{R2}	μA	—	—	1.0
Total capacitance	$V_R=0\text{V}, f=1\text{MHz}$	C_T	pF	—	—	1.5
Maximum reverse recovery time	$I_F=I_R=10\text{mA}, I_{rr}=0.1\times I_R, R_L=100\Omega$	T_{rr}	ns	—	—	4.0

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	45000	180000	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.
X	0.65	0.75	0.026	0.030
Y	0.65	0.75	0.026	0.030
Z	2.10	2.20	0.084	0.088