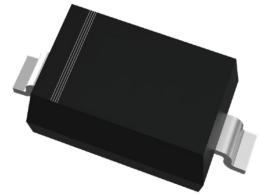


Features

- $V_R=100V$
- $I_{F(AV)}=150mA$
- Power Dissipation of 400mW
- Fast switching speed
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

SOD-123

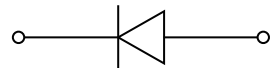


Applications

For use in low voltage high frequency circuit signals.

Mechanical Data

- Case: SOD-123
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 ($T_a=25^{\circ}C$ 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 @ $I_R=10\mu A$	$V_{(BR)R}$	V	100
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	150
Repetitive peak forward current	I_{FRM}	mA	300
Non-Repetitive Peak forward surge current @ $t_p=1.0\mu s$	I_{FSM}	A	2.0
Non-Repetitive Peak forward surge current @ $t_p=1.0s$			0.5
Power Dissipation	P_d	mW	400
Storage temperature	T_{stg}	$^{\circ}C$	-55 ~ +150
Junction temperature	T_j	$^{\circ}C$	-55 ~ +150
Typical thermal resistance	$R_{\theta J-A}$	$^{\circ}C/W$	315

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Max
Maximum instantaneous forward voltage	$I_F=1.0mA$	V_F	V	—	0.715
	$I_F=10mA$			—	0.855
	$I_F=50mA$			—	1.0
	$I_F=150mA$			—	1.25
Reverse Leakage Current	$V_R=20V$	I_{R1}	nA	—	25
	$V_R=75V$	I_{R2}	μA	—	1.0
Total capacitance	$V_R=0V, f=1MHz$	C_T	pF	—	4.0
Maximum reverse recovery time	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$	T_{rr}	ns	—	4.0

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

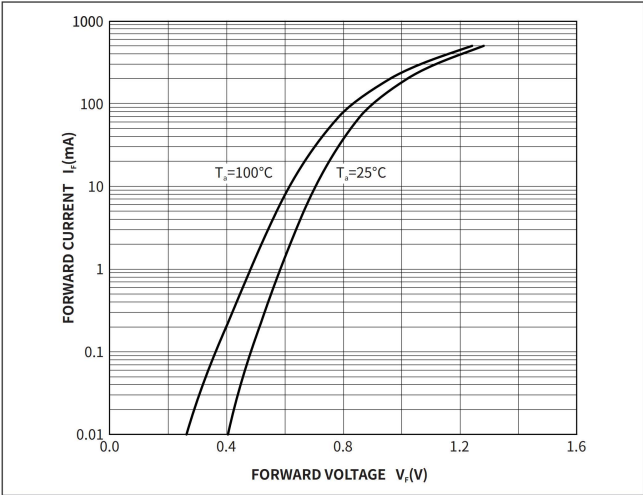


Fig.1 Typical Instantaneous Forward Characteristics

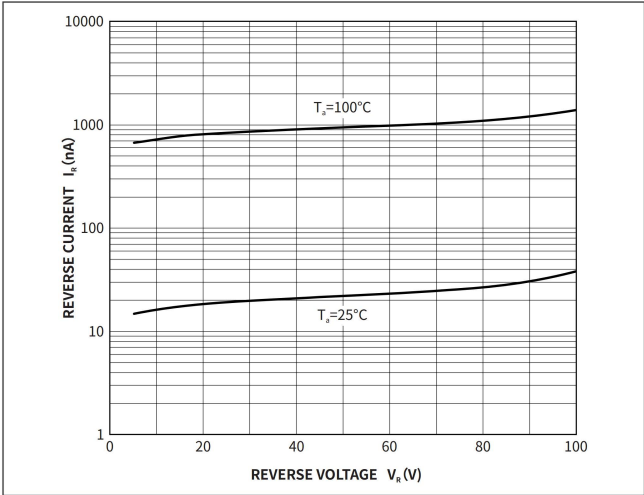


Fig.2 Typical Reverse Characteristics

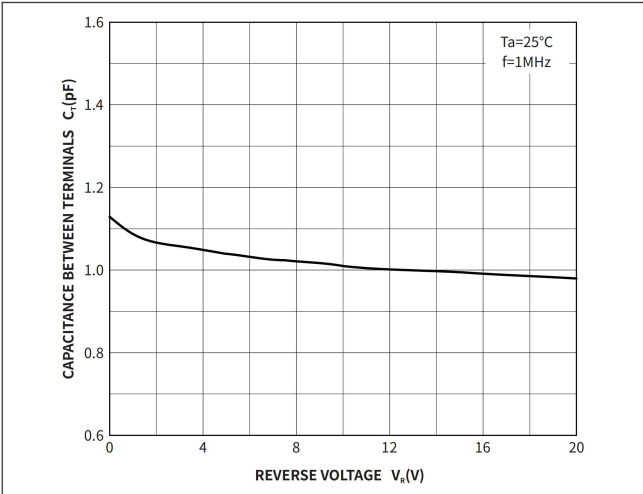


Fig.3 Typical Junction Capacitance

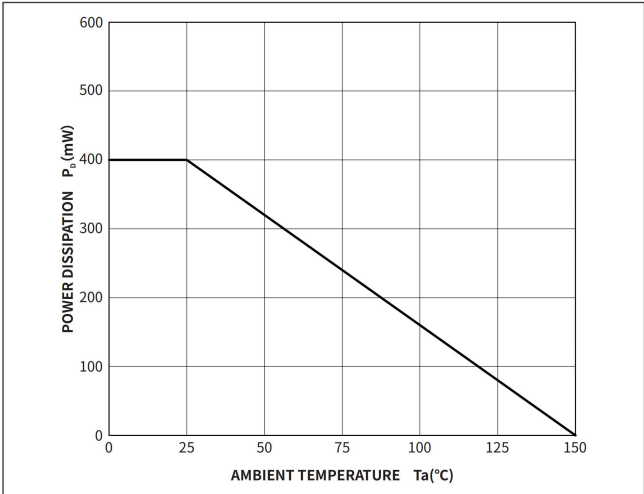
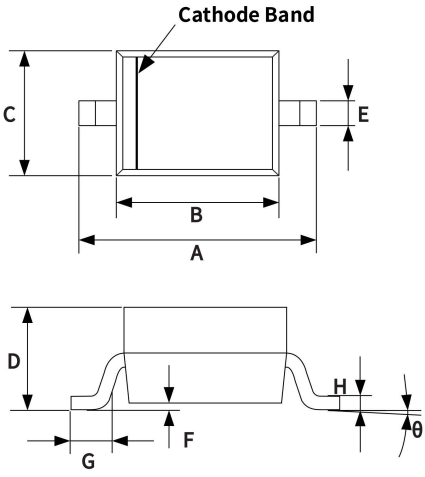


Fig.4 Power Derating Curve

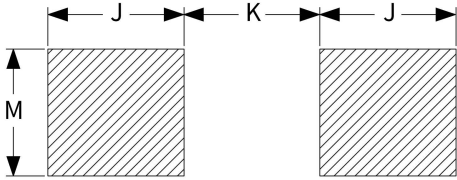
Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-123	R1	0.012	3000	30000	120000	7"

Package Outline Dimensions (SOD-123)

	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.55	3.85	0.140	0.152
B	2.55	2.85	0.100	0.112
C	1.40	1.80	0.055	0.071
D	0.95	1.35	0.140	0.152
E	0.51	0.71	0.037	0.053
F	-	0.15	-	0.006
G	0.15	0.45	0.006	0.008
H	0.08	0.25	0.003	0.010
θ	-	8°	-	8°

Suggested Pad Layout

	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.91	-	0.036	-
K	-	2.36	-	0.092
M	1.22	-	0.048	-