

Features

- $V_R=80V$
- $I_{F(AV)}=100mA$
- Power Dissipation of 150mW
- Fast switching speed
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

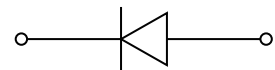
Applications

For use in low voltage high frequency circuit signals.

Mechanical Data

- Case: SOD-523
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

SOD-523



Maximum Ratings ($T_a=25^{\circ}C$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Non-Repetitive Peak Reverse Voltage	V_{RM}	V	90
Maximum repetitive peak reverse voltage	V_{RRM}	V	80
Maximum RMS Voltage	V_{RMS}	V	80
Reverse Breakdown voltage @ $I_R=100\mu A$	$V_{(BR)R}$	V	80
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	100
Forward Continuous Current	I_{FM}	mA	225
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$ Half-sine wave	I_{FSM}	A	2.0
Power Dissipation	P_d	mW	150
Storage temperature	T_{stg}	$^{\circ}C$	-55 ~ +150
Junction temperature	T_j	$^{\circ}C$	150
Typical thermal resistance	$R_{\theta J-A}$	$^{\circ}C/W$	833

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Max
Maximum instantaneous forward voltage	$I_F=100mA$	V_F	V	—	1.2
Reverse Leakage Current	$V_R=80V$	I_R	μA	—	0.1
Total capacitance	$V_R=0V, f=1MHz$	C_T	pF	—	3.0
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)

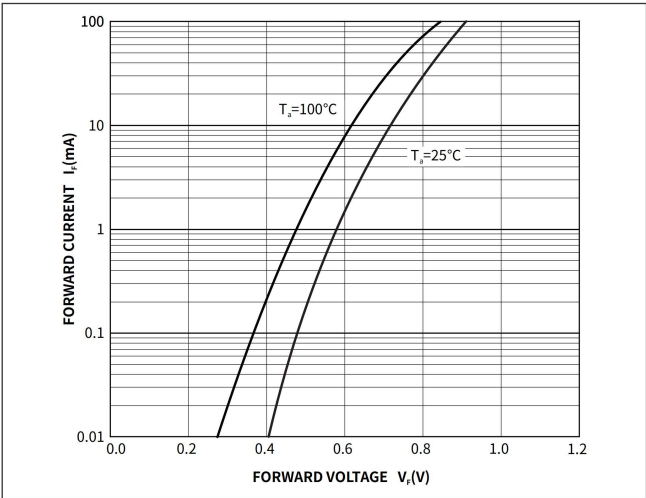


Fig.1 Typical Instantaneous Forward Characteristics

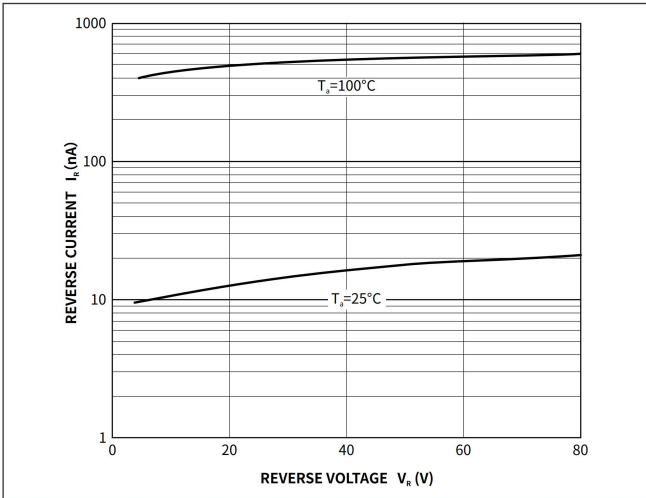


Fig.2 Typical Reverse Characteristics

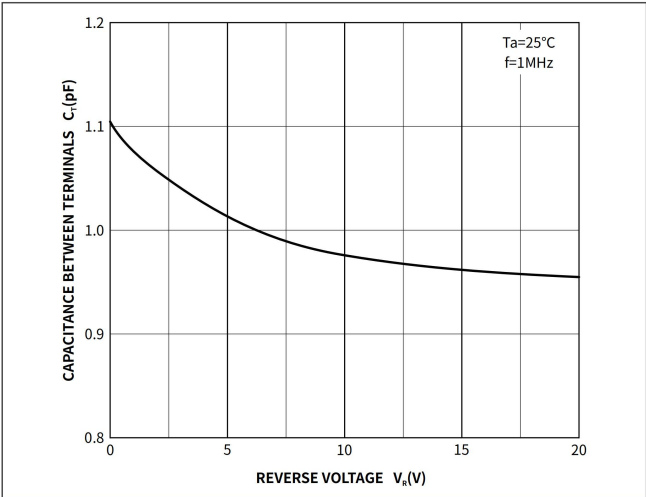


Fig.3 Typical Junction Capacitance

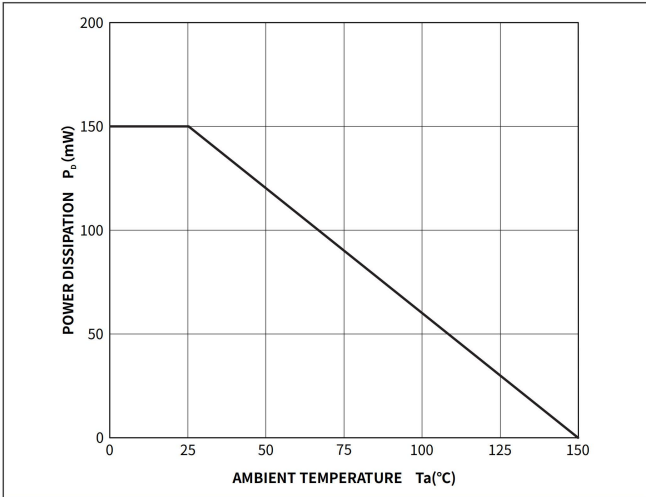
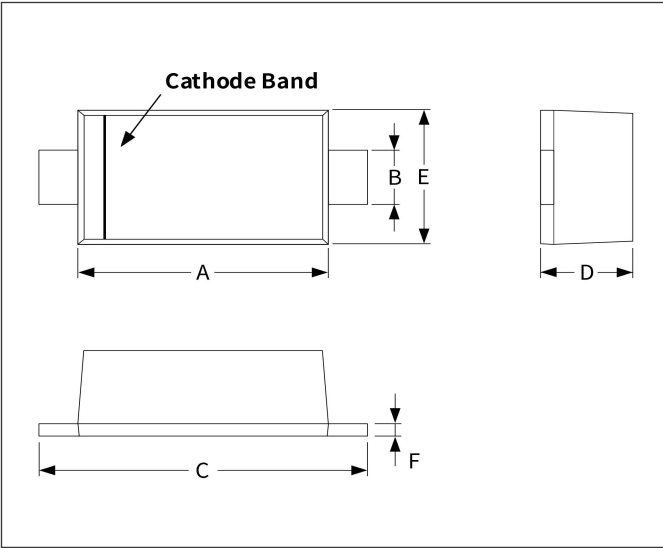


Fig.4 Power Derating Curve

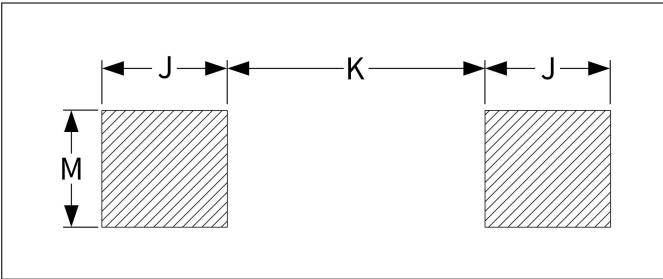
Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-523	R1	0.002	8000	80000	320000	7"

Package Outline Dimensions (SOD-523)

	Symbol	Dimensions			
		Millimeters		Inches	
		Min	Max	Min	Max
A		1.10	1.30	0.043	0.051
B		0.500	0.700	0.020	0.028
C		0.250	0.350	0.010	0.014
D		0.080	0.150	0.003	0.006
E		0.750	0.850	0.030	0.033
F		1.100	1.300	0.043	0.051

Suggested Pad Layout

	Symbol	Dimensions			
		Millimeters		Inches	
		Min.	Max.	Min.	Max.
J		0.60	-	0.023	-
K		-	1.10	-	0.042
M		0.80	-	0.031	-