

## ► 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

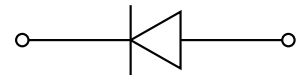
- Case: SOD-523  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

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

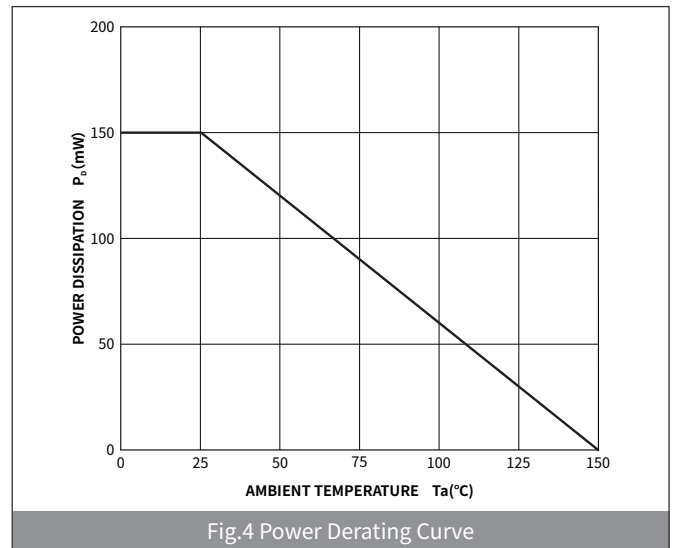
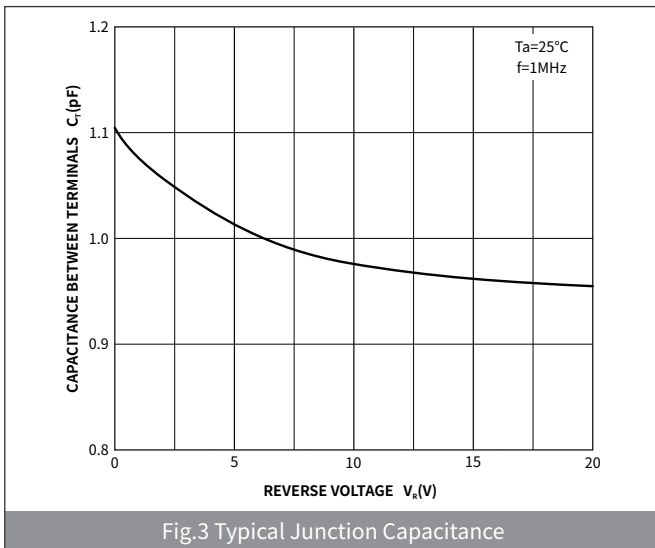
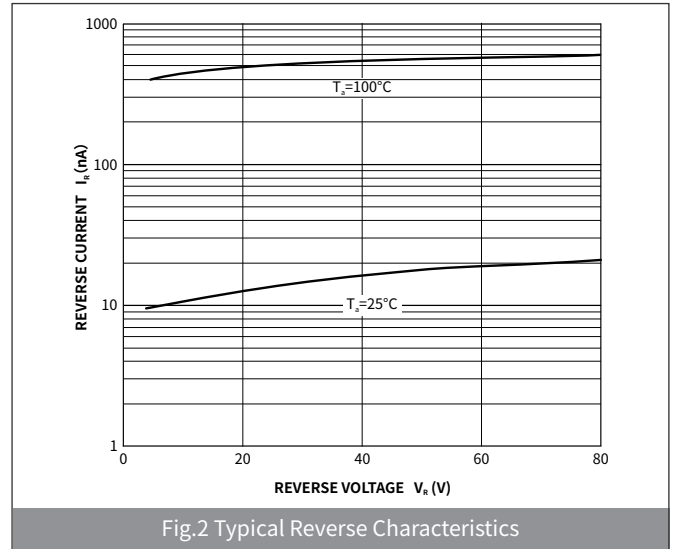
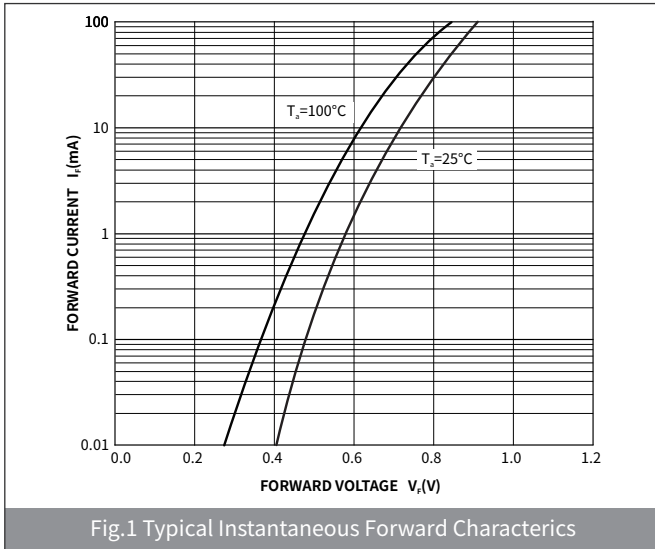
PARAMETER	SYMBOL	UNIT	VALUE
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	V	90
Maximum repetitive peak reverse voltage	$V_{RRM}$	V	80
Maximum RMS Voltage	$V_{RMS}$	V	80
Reverse Breakdown voltage @ $I_R=100\mu A$	$V_{(BR)R}$	V	80
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	100
Forward Continuous 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	$T_{stg}$	°C	-55 ~+150
Junction temperature	$T_j$	°C	150
Typical thermal resistance	$R_{\theta J-A}$	°C /W	833

## ► Electrical Characteristics (Ta=25°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	$V_R=80V$	$I_R$	$\mu A$	—	0.1
Total capacitance	$V_R=0V, f=1MHz$	$C_T$	pF	—	3.0
Maximum reverse recovery time	$I_F=I_R=10mA, I_{rr}=0.1 \times I_{R2}, R_L=100\Omega$	$T_{rr}$	ns	—	4.0

**SOD-523**


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



**▶ Ordering Information**

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-523	R1	0.002	3000	45000	180000	7"

**▶ Package Outline Dimensions (SOD-523)**

Symbol	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	1.10	1.30	0.044	0.052
B	0.25	0.35	0.01	0.014
C	1.50	1.70	0.06	0.068
D	0.50	0.70	0.02	0.028
E	0.70	0.90	0.028	0.036
F	0.05	0.20	0.002	0.008

**▶ 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	-