

Features

- High Current Capability
- Low Forward Voltage Drop
- Low IR
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

The device is a single rectifier offering low VF and excellent high temperature stability.

Mechanical Data

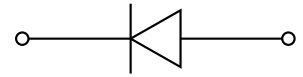
- Case: SOD-523
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

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

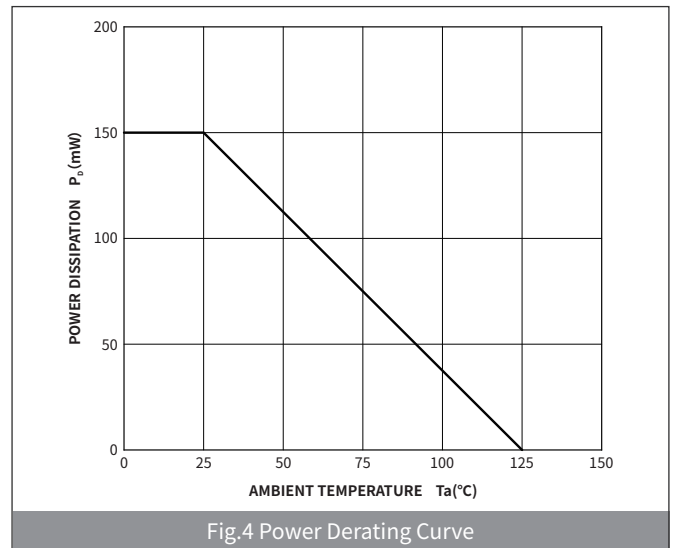
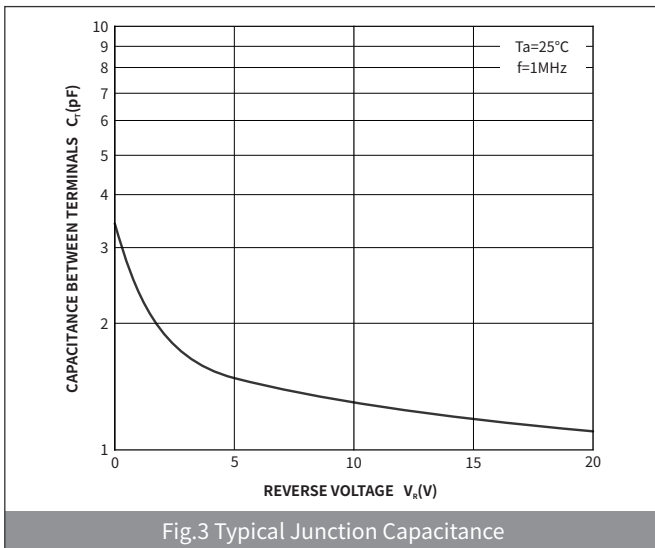
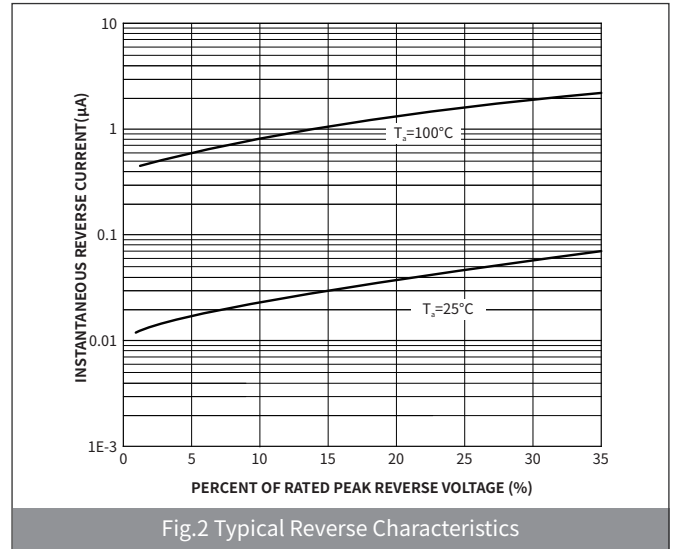
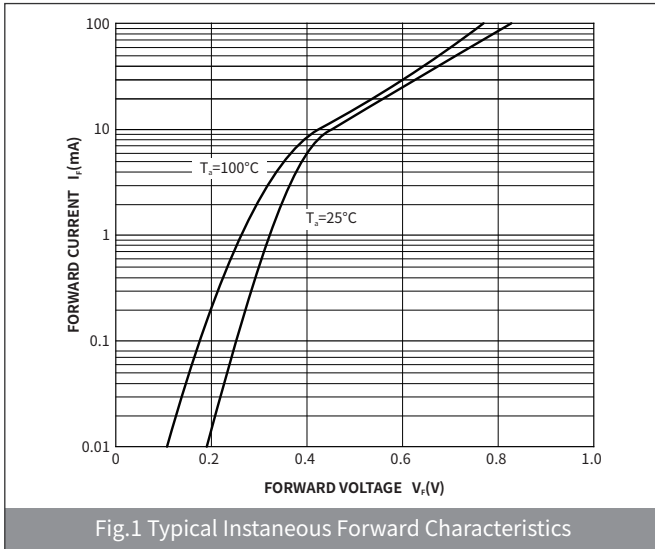
PARAMETER	SYMBOL	UNIT	VALUE
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	40
Maximum RMS Voltage	V_{RMS}	V	30
Maximum DC blocking Voltage	V_{DC}	V	30
Maximum average forward rectified current	$I_{F(AV)}$	mA	30
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	0.2
Power Dissipation	P_D	mW	150
Storage temperature	T_{stg}	°C	-55 ~ +150
Junction temperature	T_j	°C	125
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	667

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Typ	Max
Maximum forward voltage	$I_F=1.0mA$	V_F	V	—	—	0.37
Maximum reverse current	$V_R=30V$	I_R	μA	—	—	0.5
Capacitance between terminals	$V_R=1V, f=1MHz$	C_T	pF	—	2	—

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	-