

## 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-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

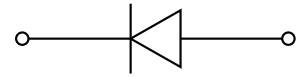
## Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	V	10
Maximum RMS Voltage	$V_{RMS}$	V	10
Reverse Breakdown voltage @IR=10μA	$V_{(BR)R}$	V	10
Maximum average forward rectified current	$I_{F(AV)}$	A	3.0
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	5.0
Power Dissipation	$P_D$	mW	350
Storage temperature	$T_{stg}$	°C	-65 ~+150
Junction temperature	$T_j$	°C	125
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	286

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Typ	Max
Maximum forward voltage	$I_F=100mA$	$V_F$	V	—	0.33	0.38
	$I_F=500mA$			—	0.41	0.50
	$I_F=1000mA$			—	0.45	0.60
Maximum reverse current	$V_R=5V$	$I_R$	μA	—	—	15
	$V_R=8V$			—	—	25
Capacitance between terminals	$V_R = 5.0V, f = 1MHz$	$C_T$	pF	—	30	—

## SOD-323



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

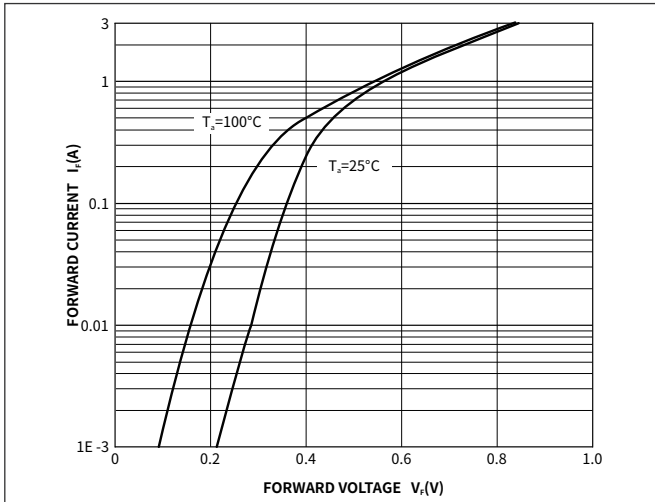


Fig.1 Typical Instantaneous Forward Characteristics

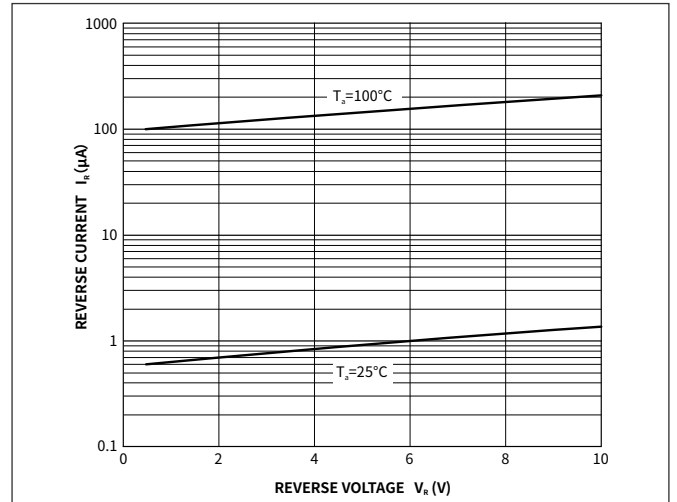


Fig.2 Typical Reverse Characteristics

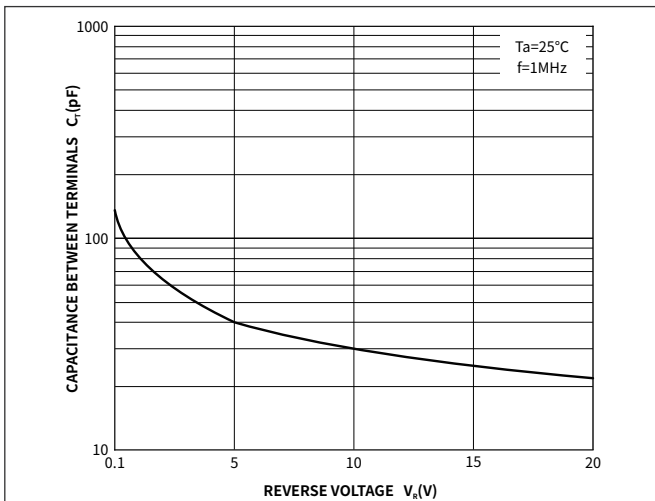


Fig.3 Typical Junction Capacitance

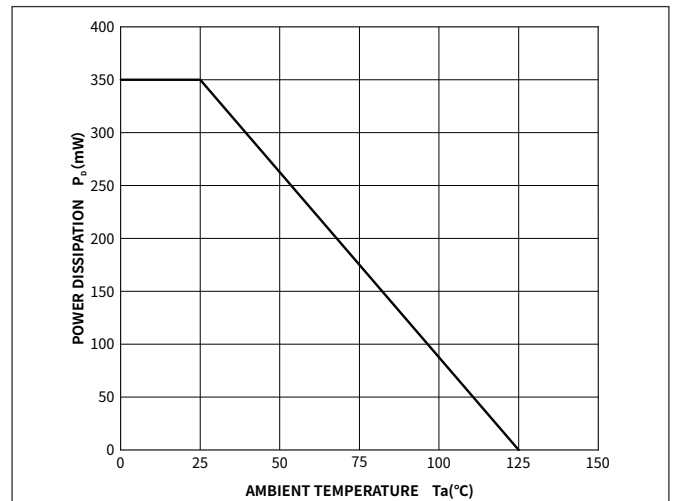


Fig.4 Power Derating Curve

**Ordering Information**

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	30000	120000	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 <sub>1</sub>	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 <sub>1</sub>	0.25	0.40	0.010	0.016
H	-	0.14	-	0.006

**Suggested Pad Layout**

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.80	-	0.031	-
K	-	1.40	-	0.055
M	0.80	-	0.031	-