

SOD-323 Surface Mount Schottky Barrier Rectifier

Features

- $V_R=40V$
- $I_{F(AV)}=1.0A$
- High Conductance
- Fast Switching Speed
- For General Purpose Switching Application

Applications

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

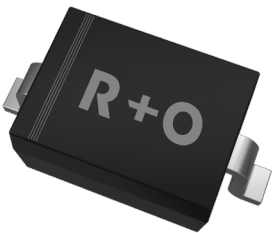
Mechanical Data

- 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

Function Diagram

Reverse Voltage
40 V
Forward Current
1.0 Ampere

SOD-323



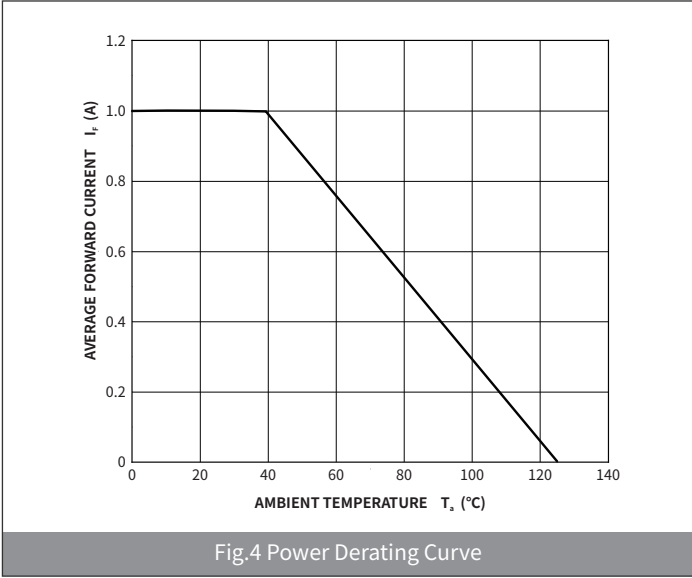
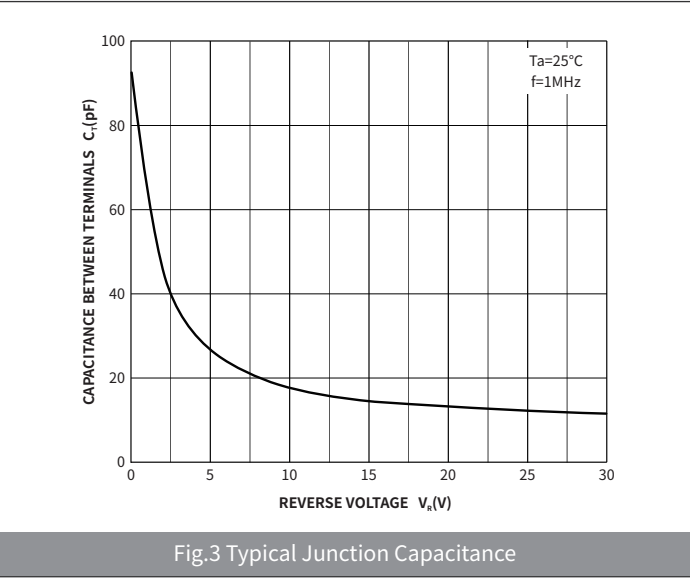
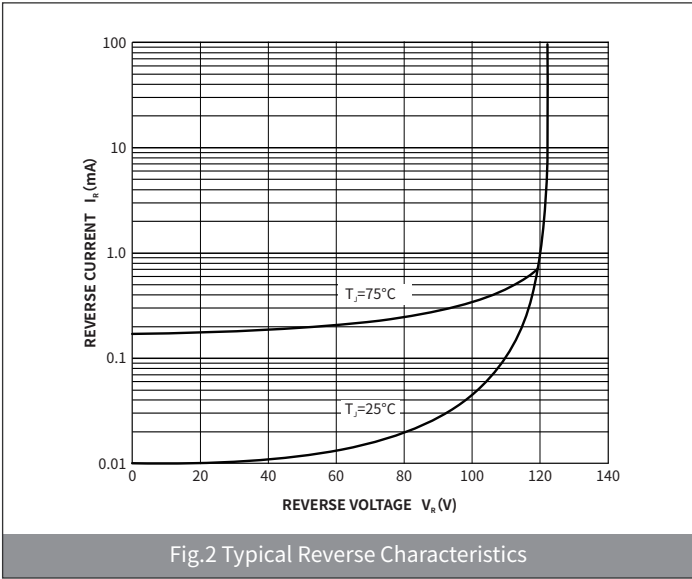
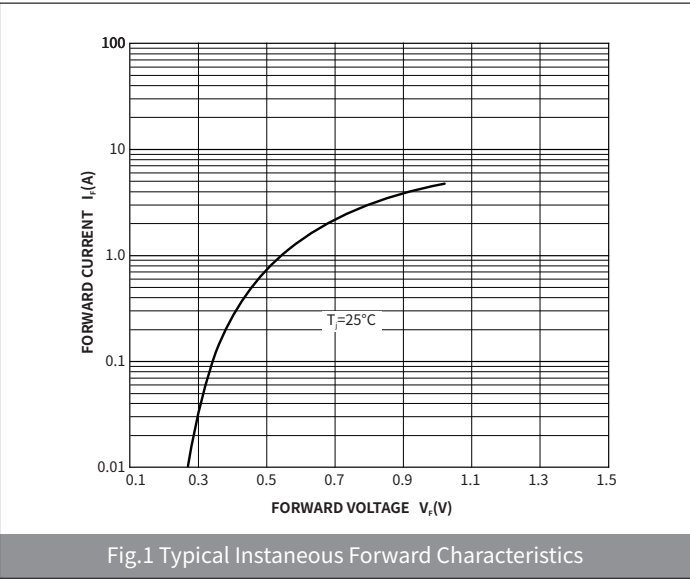
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	V_{RRM}	V	40
Maximum RMS voltage	V_{RMS}	V	28
Maximum DC blocking voltage	V_{DC}	V	40
Maximum Average Forward Rectified Current	$I_{F(AV)}$	A	1.0
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	I_{FSM}	A	25
Junction temperature	T_j	°C	-55-+150
Storage temperature range	T_{STG}	°C	-55-+125
Typical thermal resistance	$R_{\theta J-A}$	°C /W	400

● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Type	Max
Maximum forward voltage	$I_F=1.0A$	V_F	V	—	—	0.58
Maximum reverse current	$V_R=40V, T_A=25^{\circ}C$	I_R	mA	—	—	0.05
	$V_R=40V, T_A=100^{\circ}C$			—	—	8
Capacitance between terminals	$V_R=4V, f=1MHz$	C_T	pF	—	—	30

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



1N5819WS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	45000	180000	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 ₁	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 ₁	0.25	0.40	0.010	0.016
H	-	0.14	-	0.006

Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
X	0.65	0.75	0.026	0.030
Y	0.65	0.75	0.026	0.030
Z	2.10	2.20	0.084	0.088