1N5819WS SL

Surface Mount Schottky Barrier Rectifiers

Datasheet

FEATURES

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability
- low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 and symbol

MECHANICAL DATA

- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter		Symbols	1N5819WS SL	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	40	V
Maximum RMS voltage		V_{RMS}	28	V
Maximum DC Blocking Voltage		V_{DC}	40	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	1	A
Power dissipation		P_D	250	mW
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)		I_{FSM}	9	A
Maximum Instantaneous Forward Voltage	at 1 A at 3 A	V_F	0.6 0.9	V
Maximum Instantaneous Reverse Current at Rated DC Reverse Voltage	Tj = 25°C Tj = 100°C	I_R	1 10	mA
Thermal Resistance, Junction to Ambient Air (NOTE 1)		$R_{\theta JA}$	400	°C/W
Typical Junction Capacitance V_R=4V,f=1MHz		C_j	120	pF
Storage and Operating Junction Temperature Range		T_j, T_{stg}	-55 ~ +125	°C

Fig.1 Power Derating Curve

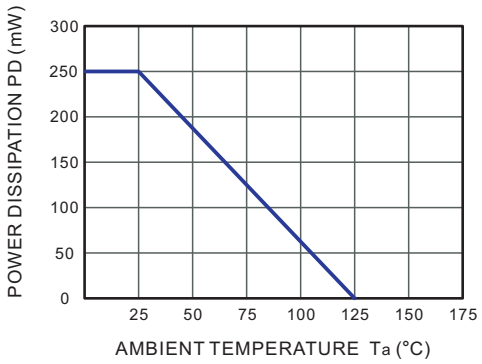


Fig.2 Typical Reverse Characteristics

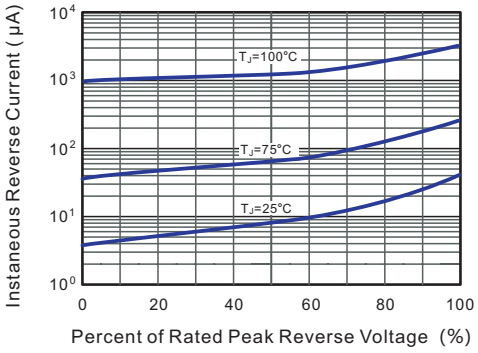


Fig.3 TYPICAL FORWARD VOLTAGE

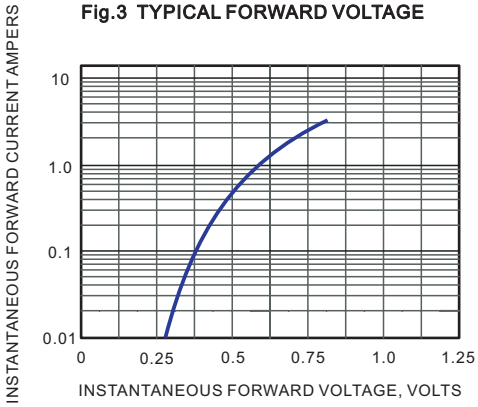
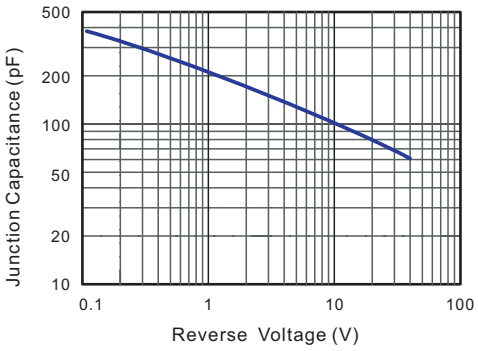


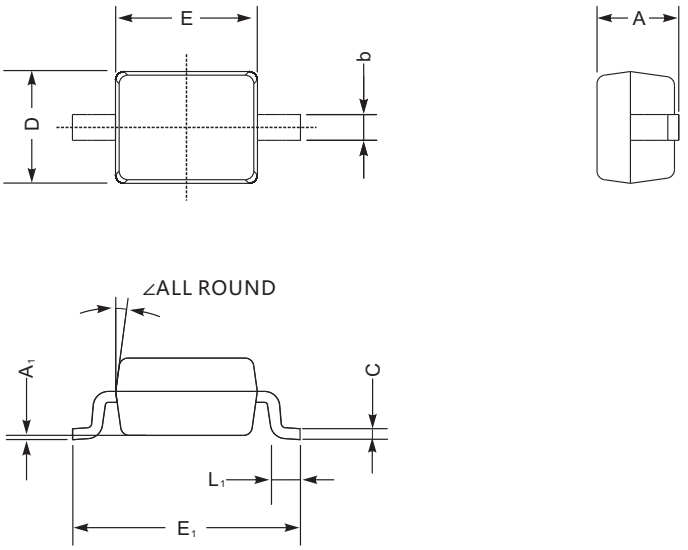
Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E_1	b	L_1	A_1	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	55	100	9.8	7.9	—	

The recommended mounting pad size

