1N5819W S4

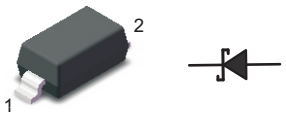
Schottky Barrier Diode

FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

Simplified outline SOD-123 and symbol

MECHANICAL DATA

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:16mg/0.00056oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	1N5819W S4	Units
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
RMS reverse voltage	V_{RMS}	28	V
Working Peak Reverse Voltage	V_{DC}	40	V
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	13	A
Maximum Instantaneous Forward Voltage I_F=20mA I_F=200mA	V_F	0.37 0.60	V
Power Dissipation	P_D	400	mW
Reverse current V_R=30V	I_R	5	uA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	300	°C/W
Reverse voltage I_R=100uA	$V_{(BR)}$	40	V
Reverse recovery time I_F=I_R=200mA,Irr=0.1xI_R,R_L=100Ω	trr	10	ns
Forward Continuons Current	I_{FM}	350	mA
Total capacitance V_R=0V.f=1MHz	C_{tot}	28	pF
Junction temperature	T_j	125	℃
Storage temperature	T_{stg}	-55 ~ +150	℃

Fig.1 Power Derating Curve

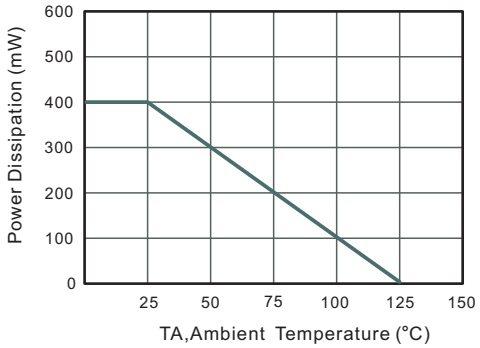


Fig.2 Typical Reverse Characteristics

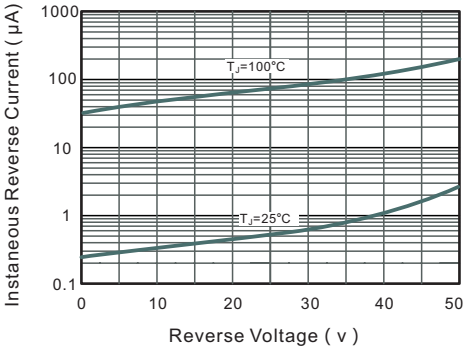


Fig.3 Forward Characteristics

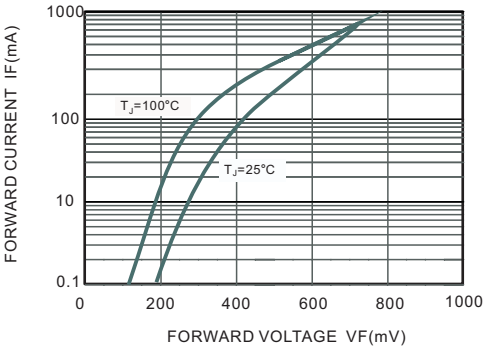


Fig.4 Maximum Non-Repetitive Peak Forward Surage Current

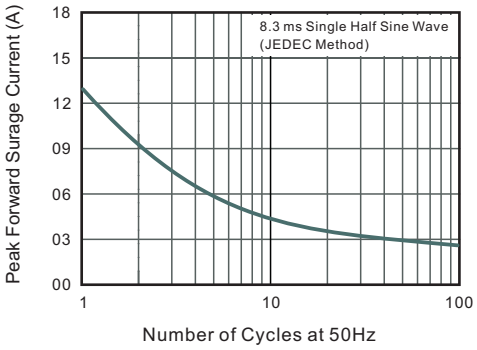


Fig.5 Typical Junction Capacitance

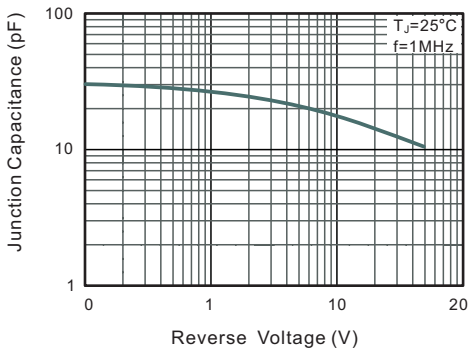
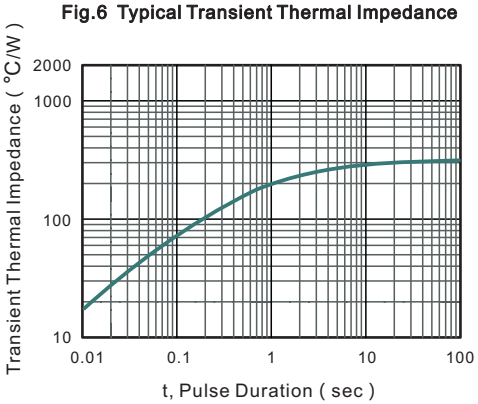


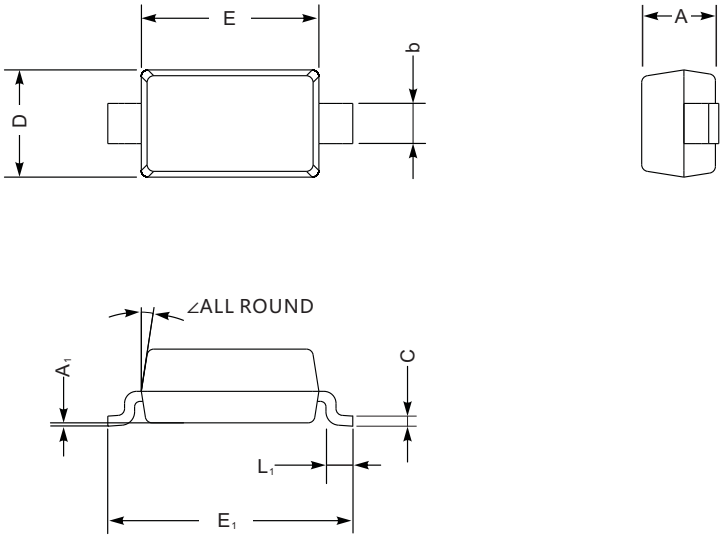
Fig.6 Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

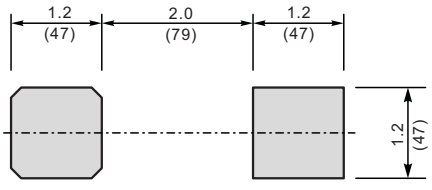
SOD-123



SOD-123 mechanical data

UNIT		A	C	D	E	E_1	L_1	b	A_1	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size



Unit: mm (mil)