

FEATURES



- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

MECHANICAL DATA

- * Case: Molded plastic
- * Lead: Axial leads, solderable per MIL-STD-750, method 2026
- * Polarity: Polarity symbols marked on case
- * Marking: SL

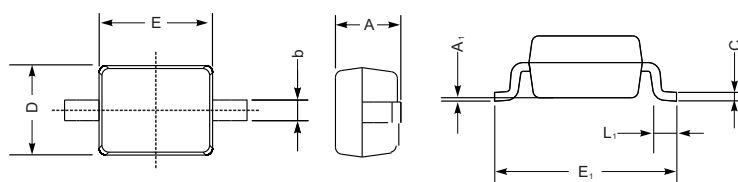
VOLTAGE RANGE

40 Volts

CURRENT

1.0 Ampere

SOD323



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
	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	63	100	9.8	7.9	—

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	1N5819WS	UNITS
Maximum Recurrent Peak Reverse Voltage	40	V
Maximum RMS Voltage	21	V
Maximum DC Blocking Voltage	40	V
Maximum Average Forward Rectified Current		
See Fig. 1	1.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	9	A
Maximum Instantaneous Forward Voltage at 1.0A	0.58	V
Maximum DC Reverse Current Ta=25°C	0.05	mA
at Rated DC Blocking Voltage Ta=100°C	8	mA
Typical Junction Capacitance (Note1)	30	pF
Typical Thermal Resistance R _{JA} (Note 2)	400	°C/W
Operating Temperature Range T _J	-65 — +125	°C
Storage Temperature Range T _{STG}	-65 — +150	°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (1N5819WS)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

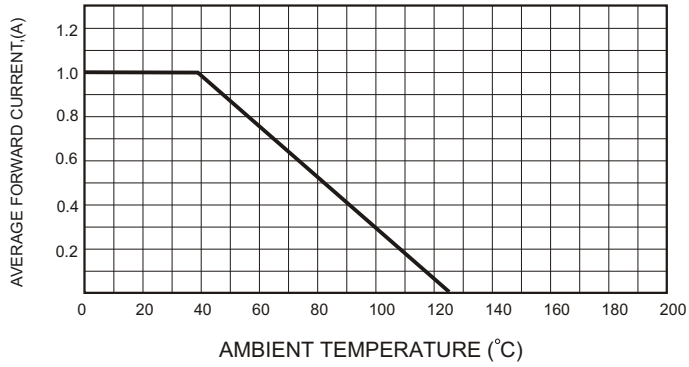


FIG.3 - Power Derating Curve

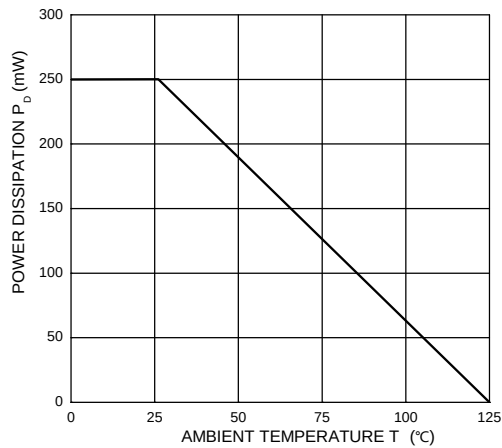


FIG.4-TYPICAL JUNCTION CAPACITANCE

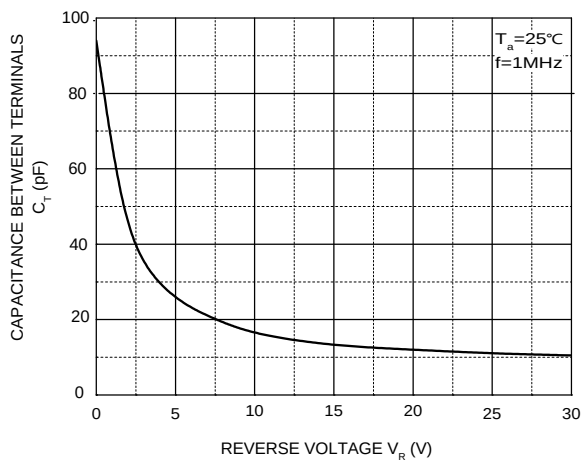


FIG.2-TYPICAL FORWARD CHARACTERISTICS

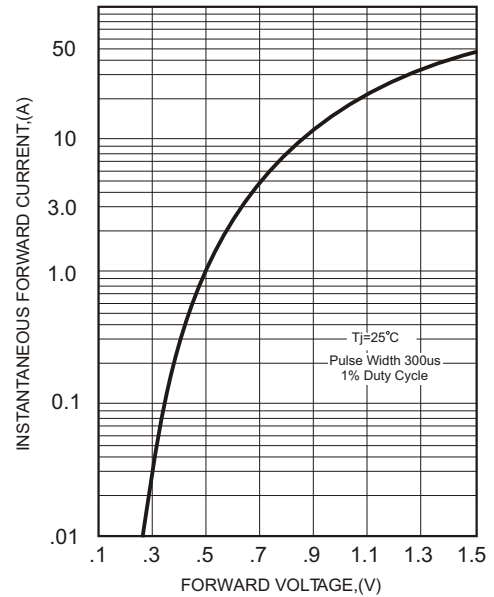


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

