

1N5819W-AH

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 40 V

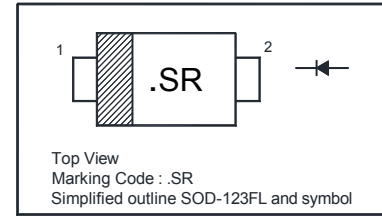
Forward Current - 1 A

Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%

Parameter	Symbols	Value	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
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load(JEDEC methode)	I_{FSM}	25	A
Maximum Instantaneous Forward Voltage	V_F	0.6 0.9	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹⁾	I_R	0.5 10	mA
Typical Junction Capacitance ²⁾	C_J	110	pF
Typical Thermal Resistance, Junction to Ambient ³⁾	$R_{\theta JA}$	75	°C/W
Operating Junction Temperature Range	T_j	- 55 to + 125	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

¹⁾ Pulse test: 300 μ s pulse width, 1% duty cycle

²⁾ Mearsured at 1 MHz and reverse voltage of 4 V

³⁾ Thermal resistance junction to ambient 0.24" X 0.24"(6 X 6 mm) copper pads to each terminals

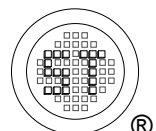


FIG.1-FORWARD CURRENT DERATING CURVE

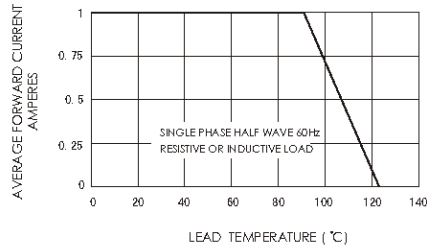


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

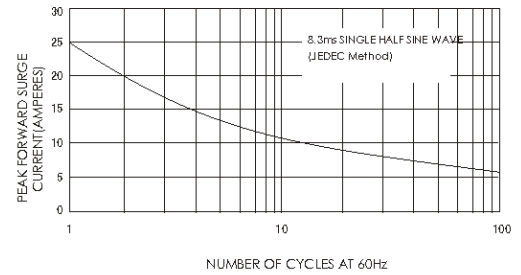


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

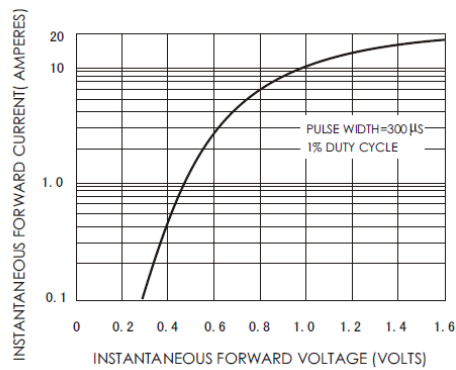


FIG.4-TYPICAL REVERSE CHARACTERISTICS

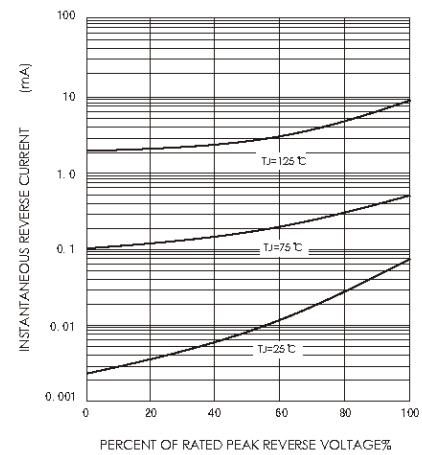
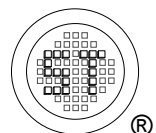
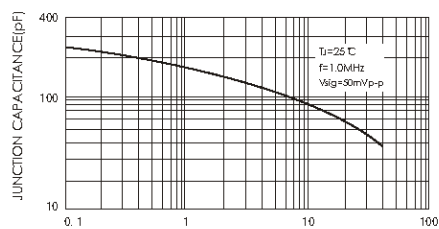


FIG.5-TYPICAL JUNCTION CAPACITANCE

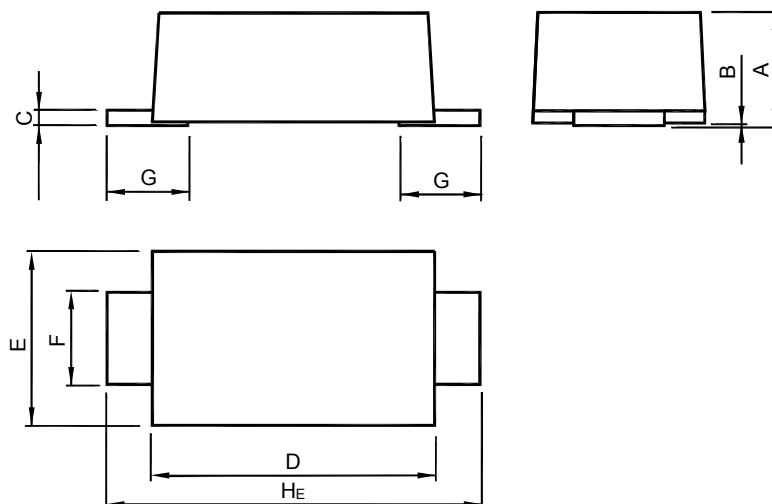


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PACKAGE OUTLINE

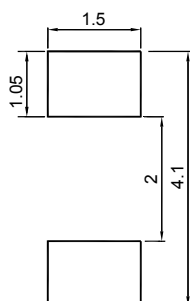
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT	A	B	C	D	E	F	G	H _E
mm	1.08	0.1	0.2	2.9	1.9	1.1	0.85	3.9
	0.88	0	0.1	2.7	1.7	0.8	0.45	3.5

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-123FL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" III " = Cathode line

" • " = HAF (Halogen and Antimony Free)

" SR " = Part No.

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