

1N5817W THRU 1N5819W

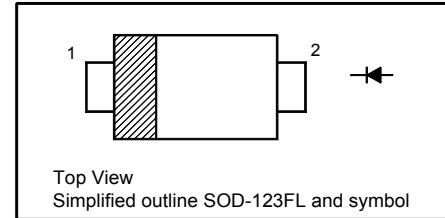
Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 20 to 40 V

Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Characteristics

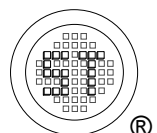
Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%

Parameter	Symbols	1N5817W	1N5818W	1N5819W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	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 at $I_F = 1$ A at $I_F = 3$ A	V_F	0.45 0.75	0.55 0.875	0.6 0.9	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹⁾ $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	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 μs pulse width, 1% duty cycle.

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

³⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with 1-inch square copper plate.



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Electrical Characteristics Curves

Fig 1. Reverse Characteristics Curve

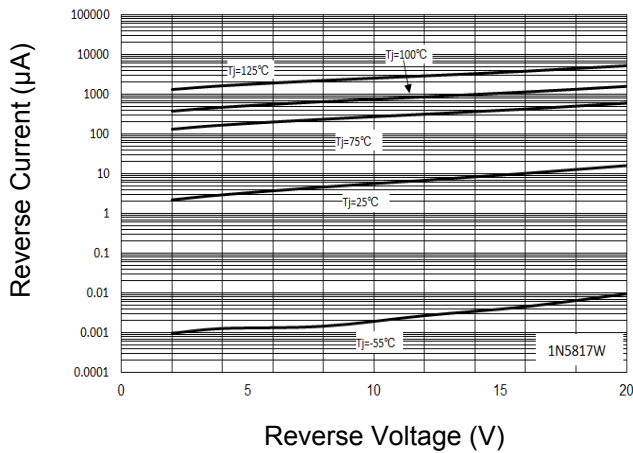


Fig 2. Reverse Characteristics Curve

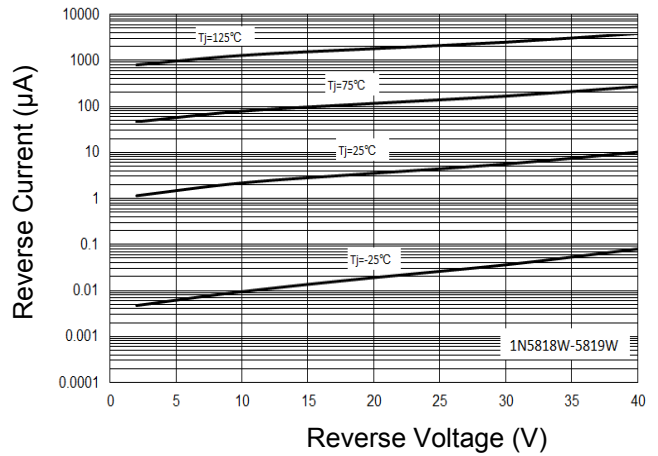


Fig 3. Forward Characteristics Curve

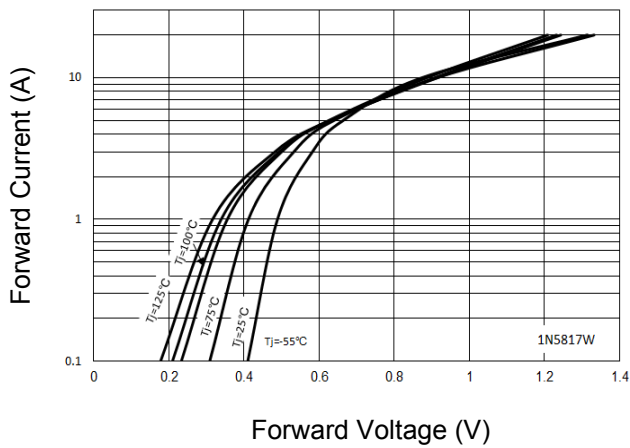


Fig 4. Forward Characteristics Curve

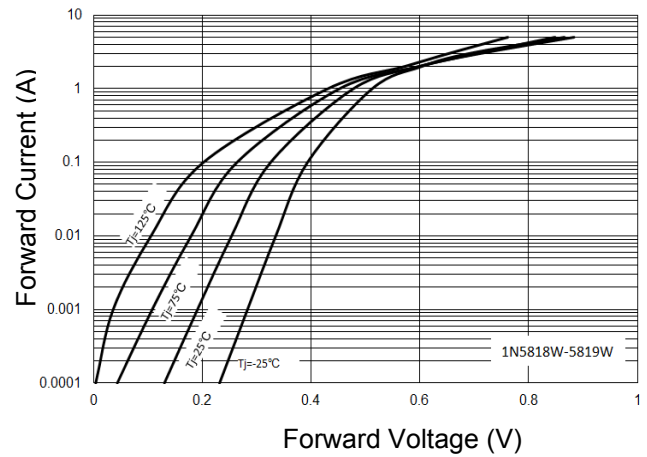


Fig 5. Junction Capacitance

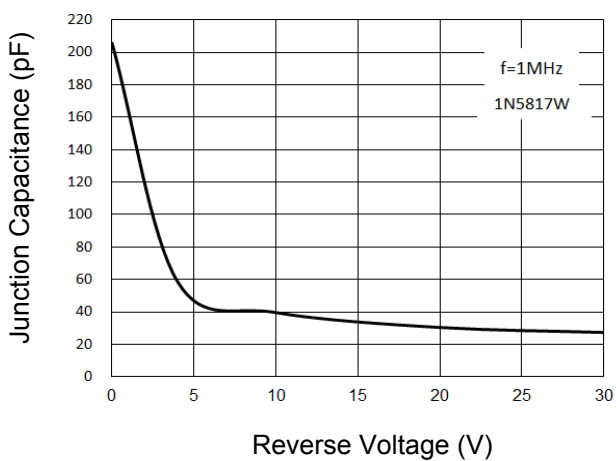
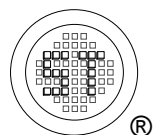
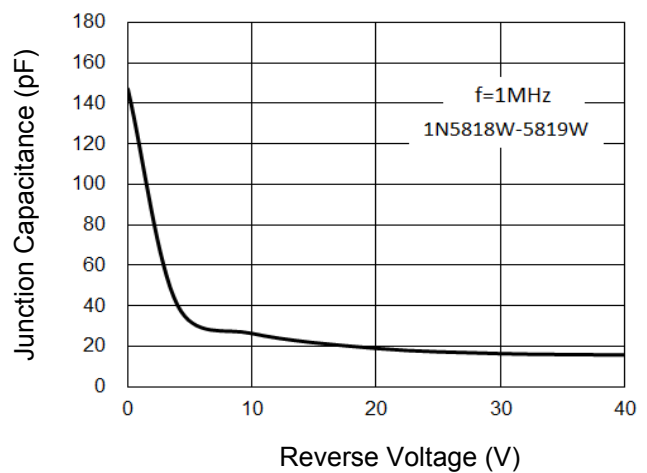


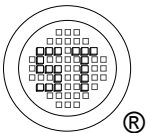
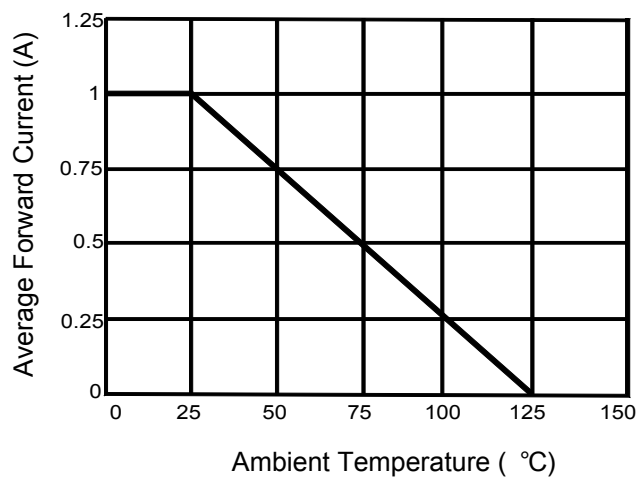
Fig 6. Junction Capacitance



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Electrical Characteristics Curves

Fig 7. Average Forward Current Derating Curve

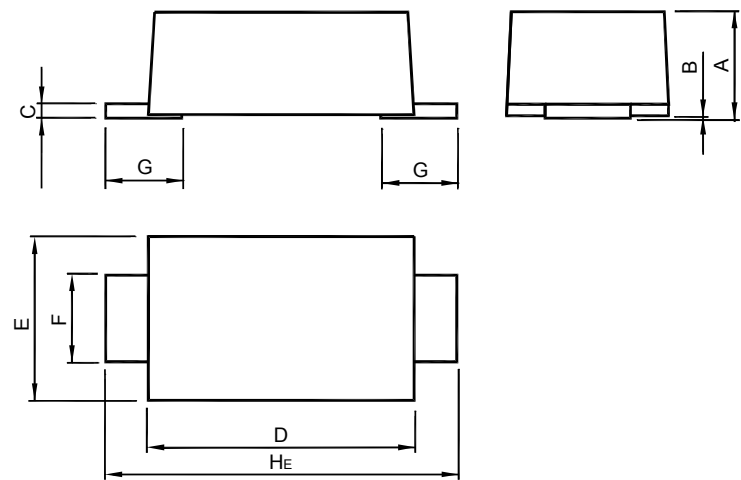


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PACKAGE OUTLINE

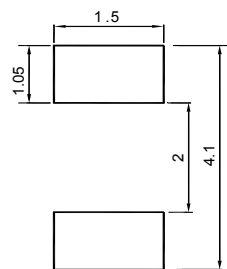
Plastic surface mounted package; 2 leads

SOD-123FL



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

" ** " = Part No.

Type	Marking	Type	Marking	Type	Marking
1N5817W	A0	1N5818W	SR	1N5819W	SR

" III " = Cathode line

Font type: Arial

