

1N5817W THRU 1N5819W

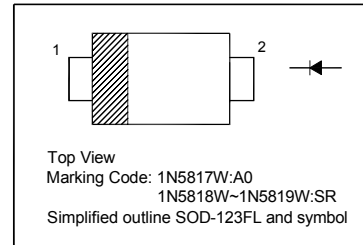
Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 20 to 40 V

Forward Current - 1 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Characteristics

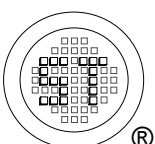
Ratings at 25°C ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%

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 method)	I_{FSM}	25			A	
Maximum Instantaneous Forward Voltage	V_F	at $I_F = 1$ A	0.45	0.55	0.6	V
		at $I_F = 3$ A	0.75	0.875	0.9	
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage ¹⁾	I_R	$T_A = 25^\circ\text{C}$	0.5			mA
		$T_A = 100^\circ\text{C}$	10			
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⁾ Measured 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



SEMTECH ELECTRONICS LTD.



1N5817W THRU 1N5819W

FIG.1-FORWARD CURRENT DERATING CURVE

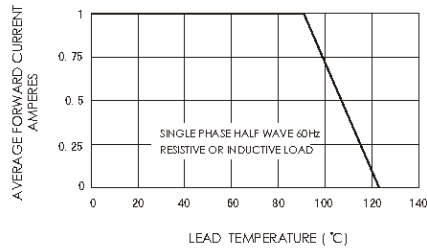


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

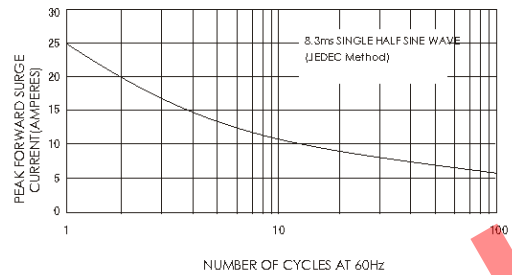


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

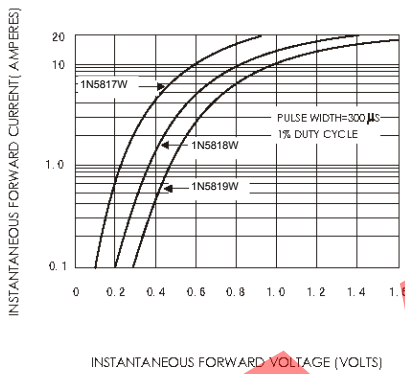


FIG.4-TYPICAL REVERSE CHARACTERISTICS

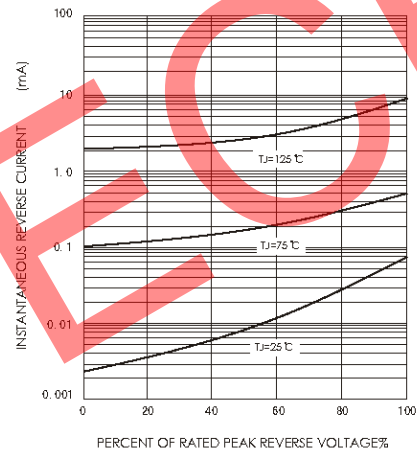
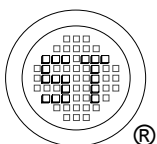
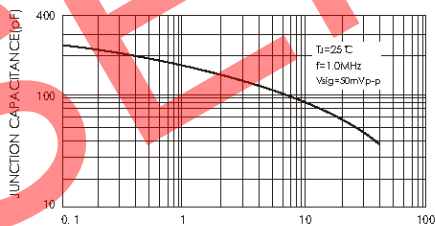


FIG.5-TYPICAL JUNCTION CAPACITANCE



SEMTECH ELECTRONICS LTD.



1N5817W THRU 1N5819W

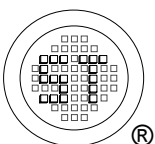
PACKAGE OUTLINE

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	0.9	3.9
	0.88	0	0.1	2.6	1.7	0.8	0.7	3.5



SEMTECH ELECTRONICS LTD.

