



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

1N5817W  
THRU  
1N5819W

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 20 to 40 Volts**

**CURRENT - 1.0 Ampere**

**FEATURES**

- \* For general purpose applications
- \* Low turn-on voltage
- \* Fast switching time
- \* Ideal for surface mounted applications

**MECHANICAL DATA**

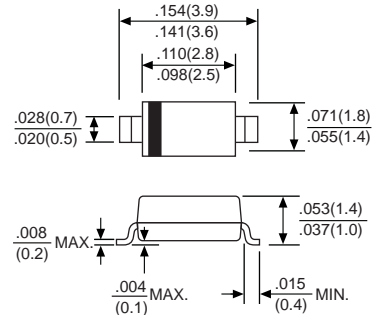
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026 guaranteed
- \* Mounting position: Any
- \* Weight: 0.008 grams Approx.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



SOD-123



Dimensions in inches and (millimeters)

	SYMBOL	1N5817W	1N5818W	1N5819W	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =90°C	I <sub>O</sub>	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30			Amps
Maximum Instantaneous Forward Voltage at I <sub>F</sub> =1.0A	V <sub>F</sub>	0.45	0.55	0.60	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	1.0			mAmps
Typical Thermal Resistance (Note1)	R <sub>θJA</sub>	80			°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	120			pF
Storage Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150			°C

Note: 1. Mounted on FR4 PC Board.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

# RATING AND CHARACTERISTIC CURVES (1N5817W THRU 1N5819W)

FIG. 1  
TYPICAL FORWARD CURRENT  
DERATING CURVE

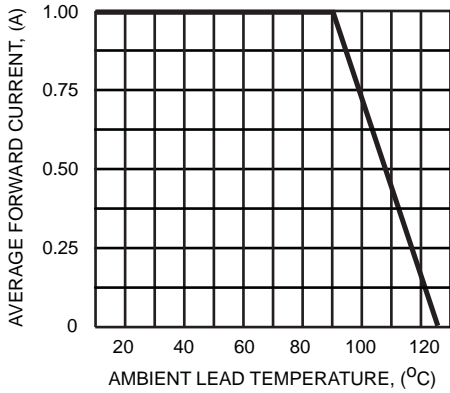


FIG. 2  
MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT

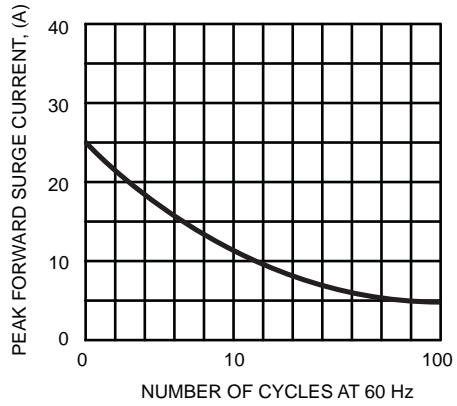


FIG. 3  
TYPICAL REVERSE CHARACTERISTICS

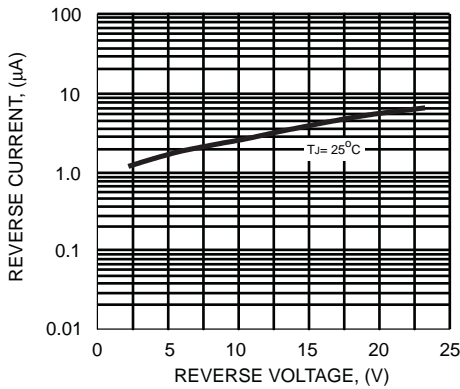


FIG. 4  
TYPICAL INSTANTANEOUS FORWARD  
CHARACTERISTICS

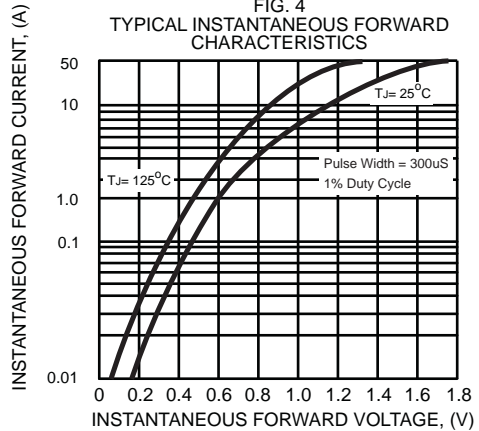
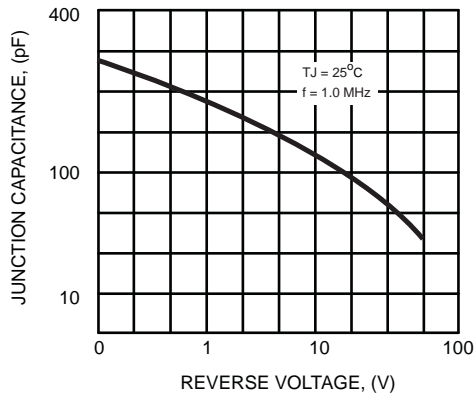


FIG. 5  
TYPICAL JUNCTION CAPACITANCE



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