



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

1N5817  
THRU  
1N5819

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

VOLTAGE RANGE - 20 to 40 Volts

CURRENT - 1.0 Ampere

**FEATURES**

- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability
- \* High reliability
- \* High surge capability

**MECHANICAL DATA**

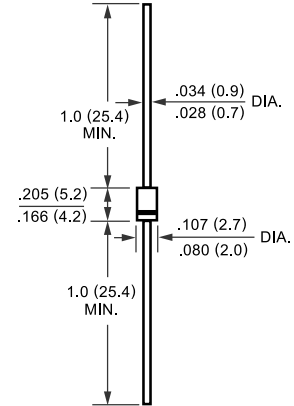
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.33 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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



DO-41



Dimensions in inches and (millimeters)

	SYMBOL	1N5817	1N5818	1N5819	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 .375*(9.5mm) lead length at T <sub>L</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>	25			Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>	.45	.55	.60	Volts
Maximum Forward Voltage at 3.1A DC	V <sub>F</sub>	.75	.875	.90	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C	1.0			mAmps
	@T <sub>A</sub> = 100°C	10			
Typical Thermal Resistance (Note1)	R <sub>θJA</sub>	80			°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	110			pF
Storage and Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 125			°C

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.375\*(9.5mm) Lead Length.  
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

# RATING AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

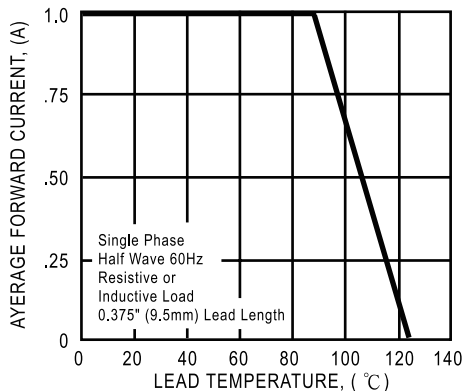


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

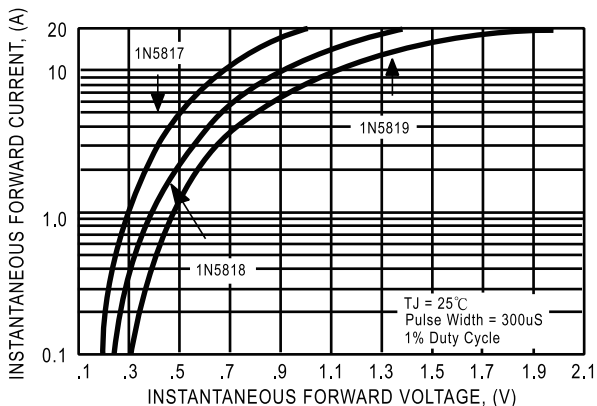


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

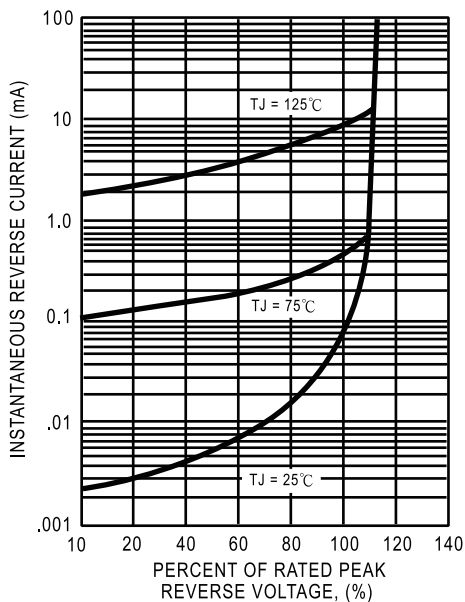


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

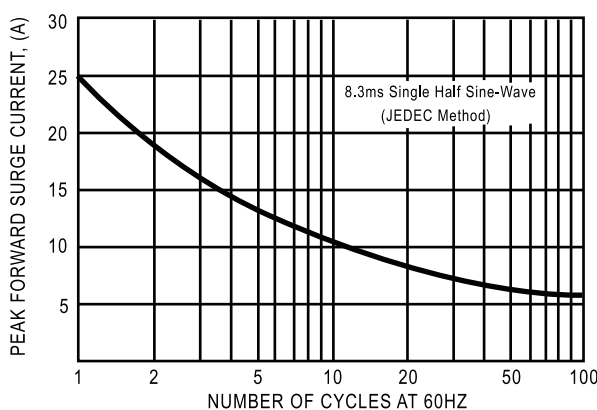
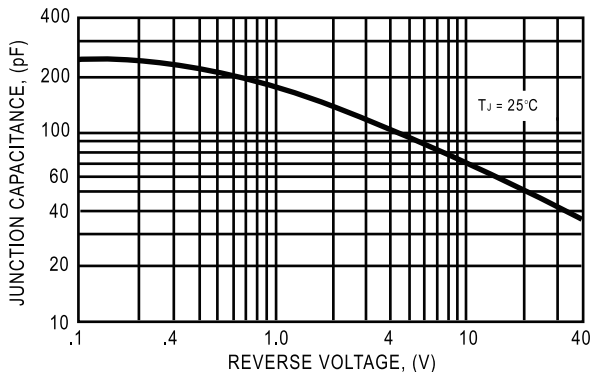


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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