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Jameco Part Number 177949

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE-20 to 40 Volts    CURRENT-1.0 Ampere**

**FEATURES**

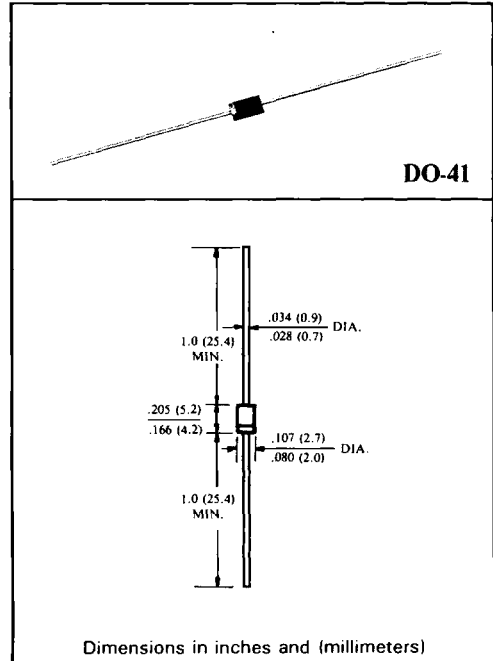
- \* Low switching noise
- \* Low forward voltage drop
- \* High current capability
- \* High switching capability
- \* High reliability
- \* High surge capability

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL94V-0 rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.33 grams

**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%.



**MAXIMUM RATING (At TA = 25°C unless otherwise noted)**

RATINGS	SYMBOL	1N5817	1N5818	1N5819	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	21	28	Volts
Maximum DC Blocking Voltage	VDC	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) T <sub>L</sub> = 70°C	I <sub>FSM</sub>		25		Amps
Typical Thermal Resistance (Note 1)	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

**ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	1N5817	1N5818	1N5819	UNIT
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 Average Reverse Current at Rated DC Blocking Voltage	@TA = 25°C		1.0		mAmps
	@TA = 100°C	I <sub>R</sub>	10		mAmps

NOTES: 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) 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

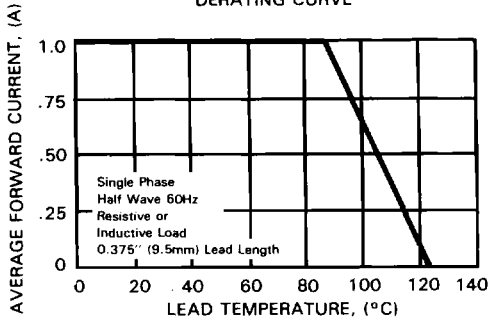


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

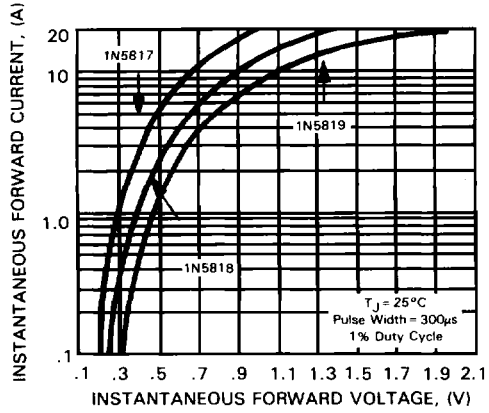


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

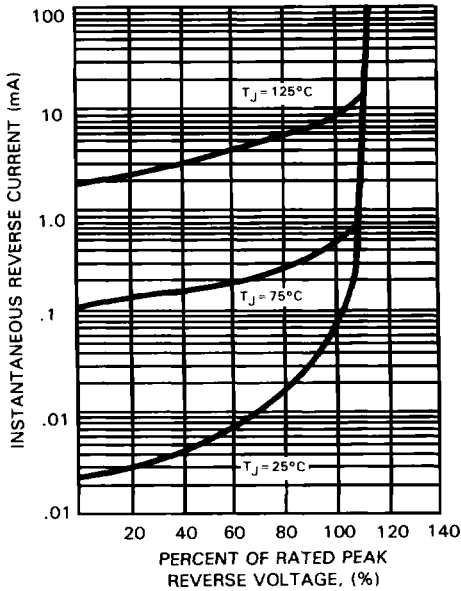


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

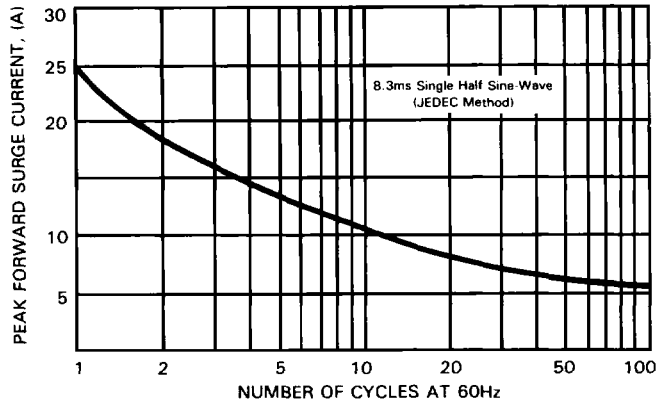


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

