



# 1N5817 - 1N5819

# SCHOTTKY BARRIER RECTIFIER

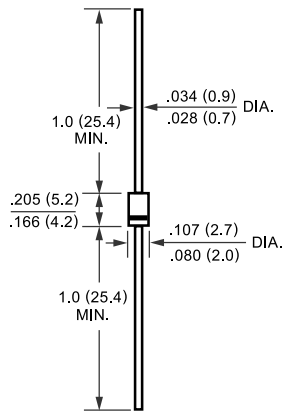
VOLTAGE RANGE - 20 to 40 Volts CURRENT - 1.0 Ampere

### 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

### FEATURES

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



DO-41



Dimension in inches and ( millimeters )

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	1N5817	1N5818	1N5819	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	Volts
Maximum RMS Voltage	$V_{RMS}$	14	21	28	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at $T_L = 90^{\circ}C$	$I_O$	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	25			Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	$V_F$	.45	.55	.60	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A = 25^{\circ}C$	1.0			mAmps
	@ $T_A = 100^{\circ}C$	10			
Maximum Forward Voltage at 3.1A DC	$V_F$	.75	.875	.90	Volts
Typical Junction Capacitance ( Note 1 )	$C_J$	110			pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JA}$	80			$^{\circ}C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +125			$^{\circ}C$

- NOTES:
1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
  2. Thermal Resistance ( Junction to Ambient ) : Vertical PC Board Mounting, 3.375\*(9.5mm ) Lead Length.



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## RATING AND CHARACTERISTIC CURVES

FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

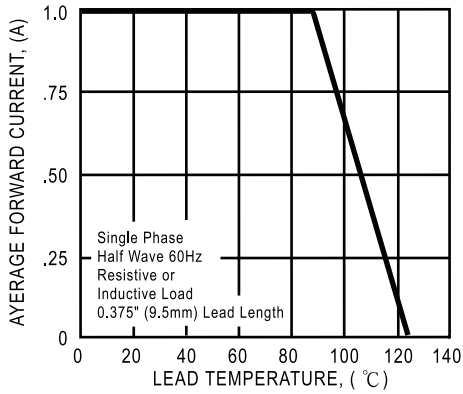


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

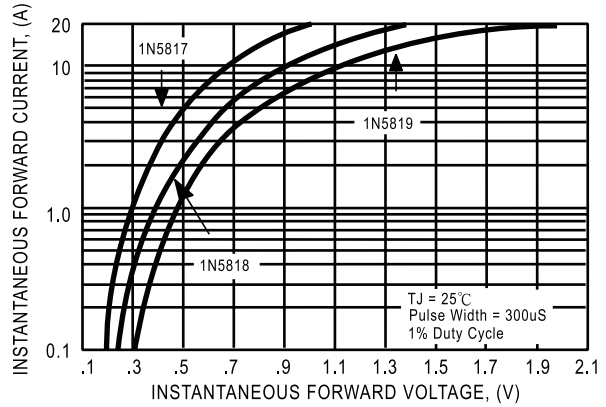


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

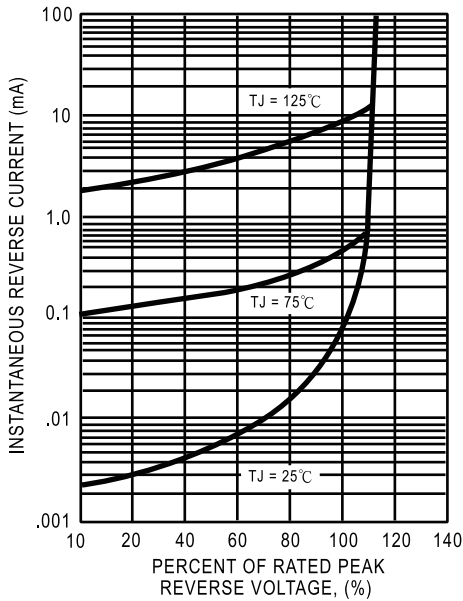


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

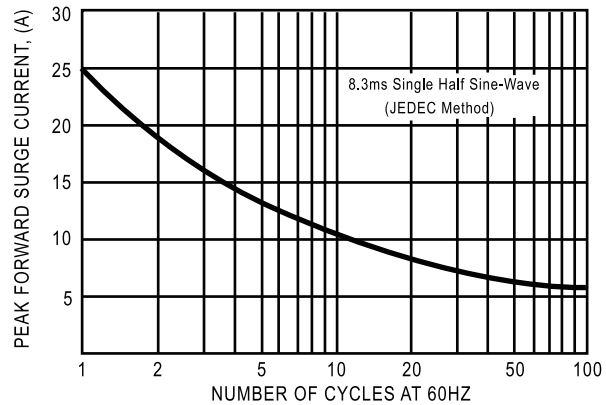


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

