



1N5817 - 1N5819

SCHOTTKY BARRIER RECTIFIER

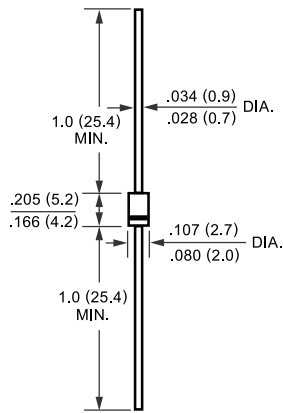
VOLTAGE RANGE - 20 to 40 Volts CURRENT - 1.0 Ampere

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

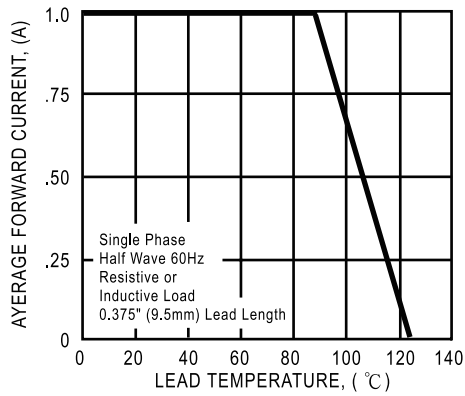


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

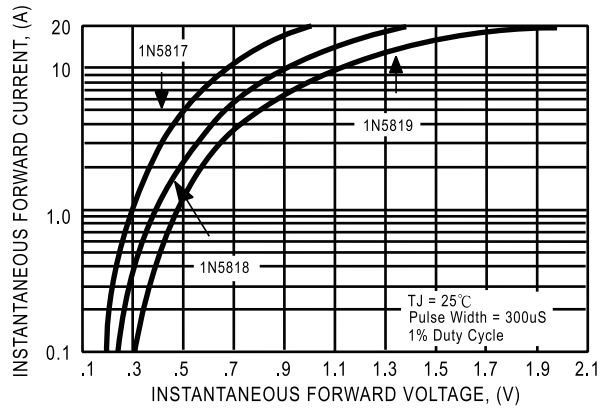


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

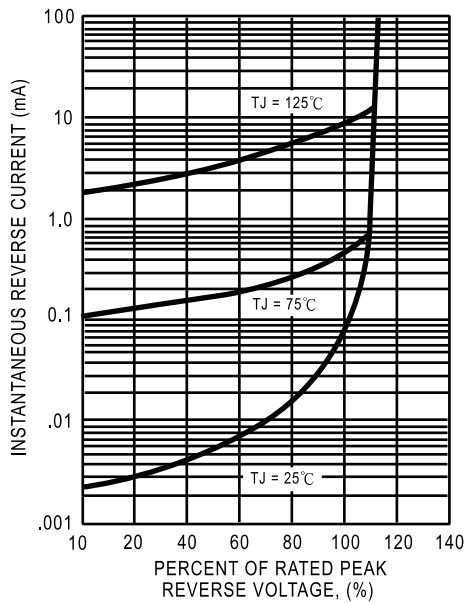


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

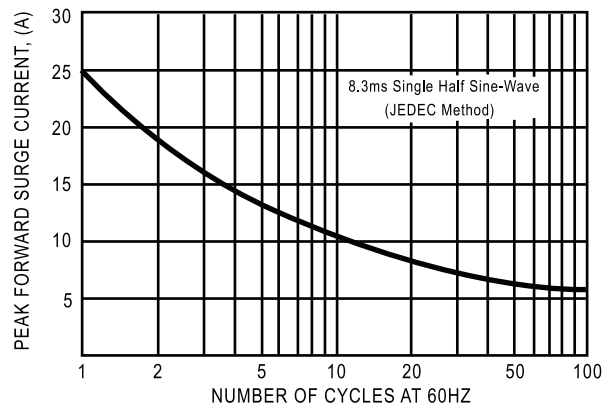
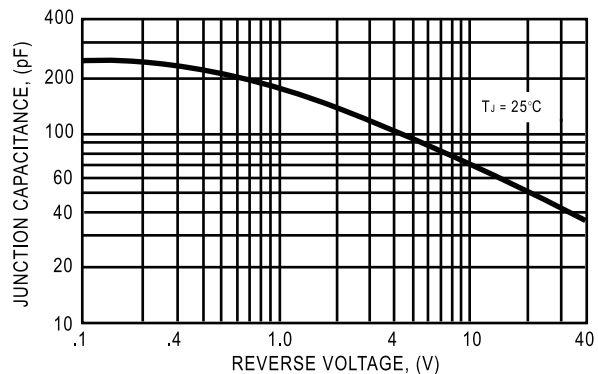


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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