

1N5817 THRU 1N5819

SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 to 40 VOLTS
FORWARD CURRENT: 1.0 AMPERE

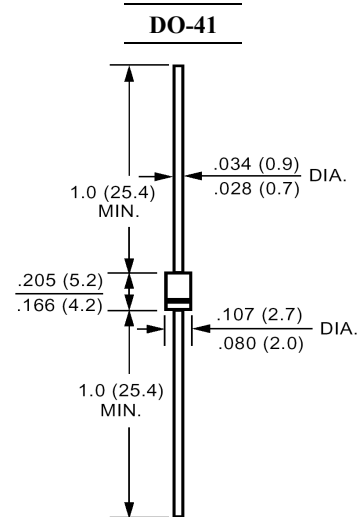
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FEATURES

- High current capability
- 1.0 ampere operation at $T_L=90$ with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and porlarlity protection applications

MECHANICAL DATA

Case: Molded plastic, DO-41
 Epoxy: UL 94V-O rate flame retardant
 Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
 Polarity: Color band denotes cathode end
 Mounting position: Any
 Weight: 0.012ounce, 0.33gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	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 $T_L=90$	$I_{(AV)}$	1.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25			Amp
Maximum Forward Voltage at 1.0A DC	V_F	0.45	0.55	0.60	Volts
Maximum Forward Voltage at 3.0A DC		0.75	0.875	0.90	
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	I_R	1.0			mAmp
		10			
Typical Junction Capacitance (Note 1)	C_J	110			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	80			/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +125			

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance From Junction to Ambient 0.5"(12.7mm) lead length P.C.B. Mounted.

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RATINGS AND CHARACTERISTIC CURVES

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FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

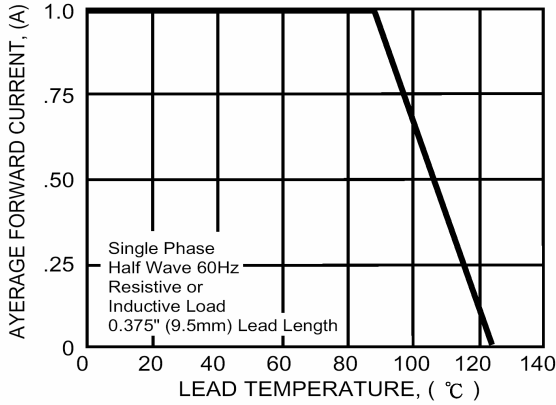


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

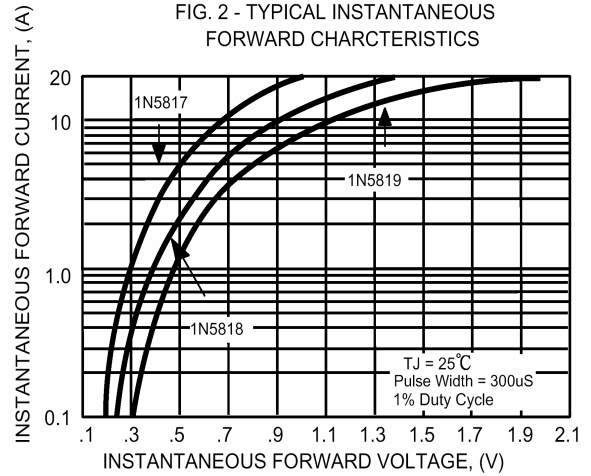


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

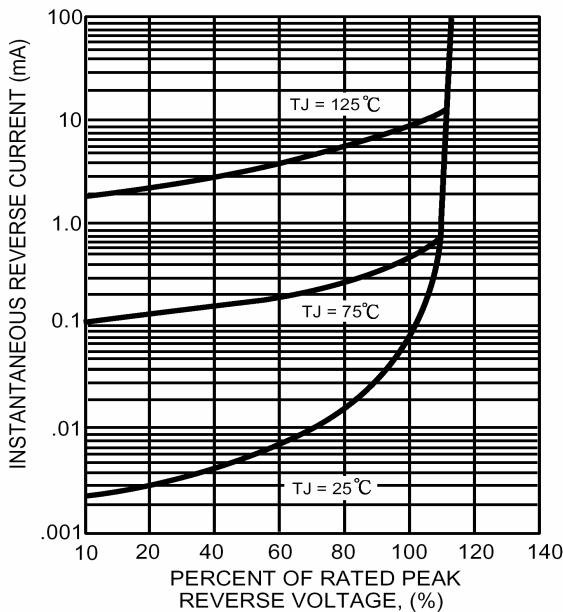


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

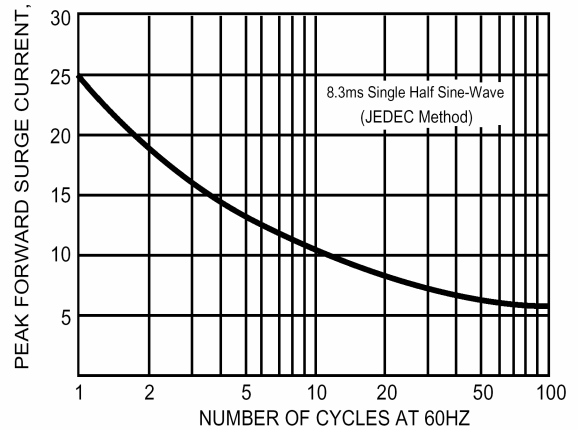


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

