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RoHS COMPLIANT

1N5817 THRU 1N5819

1 Amp Schottky Barrier Rectifier 20 to 40 Volts

Features

- Halogen free available upon request by adding suffix "-HF"
- Guard Ring Protection
- Low Forward Voltage
- Low Power Loss For High Efficiency
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1)
  ("P"Suffix designates Compliant.)

Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Maximum Thermal Resistance; 80°C/W Junction To Ambient

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N5817	20V	14V	20V
1N5818	30V	21V	30V
1N5819	40V	28V	40V

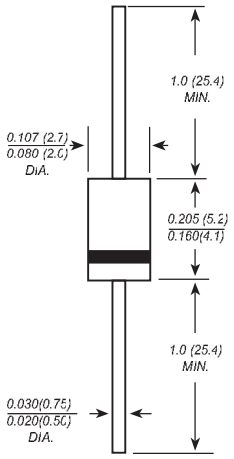
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_A = 90°C
Peak Forward Surge Current	I_{FSM}	25A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 1N5817 1N5818 1N5819	V_F	 .45V .55V .60V	 I_{FM} = 1.0A; T_J = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1.0mA 10mA	T_J = 25°C T_J = 100°C
Typical Reverse Recovery Time	Trr	10ns	I_F=0.5A, I_R=1.0A I_{RR}=0.25A
Typical Junction Capacitance	C_j	110pF	Measured at 1.0MHz, V_R=4.0V

*Pulse test: Pulse width 300 μsec, Duty cycle 2%

Note:1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

DO-41



Dimensions in inches and (millimeters)

1N5817 thru 1N5819

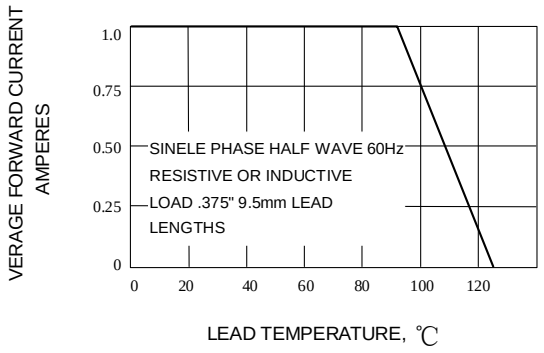


Fig. 1-FORWARD CURRENT DERATING CURVEE

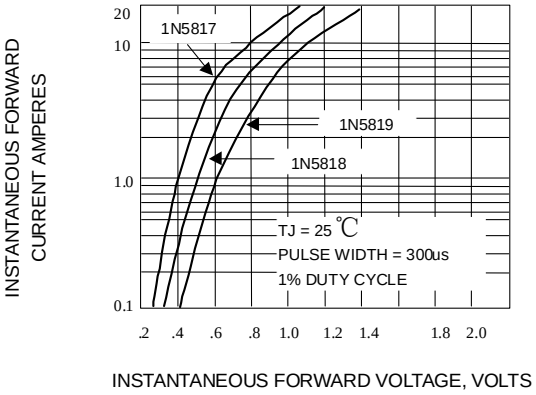


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

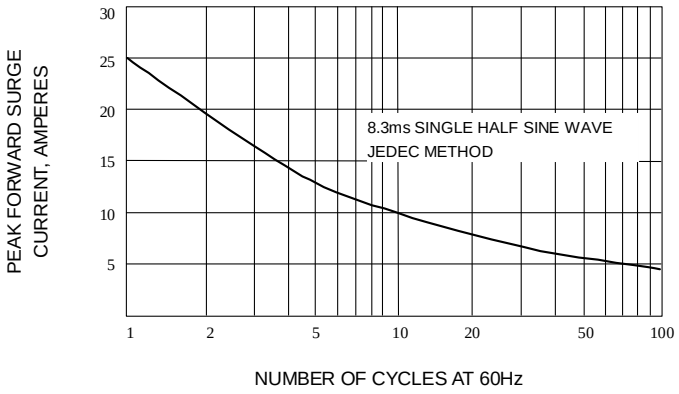


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

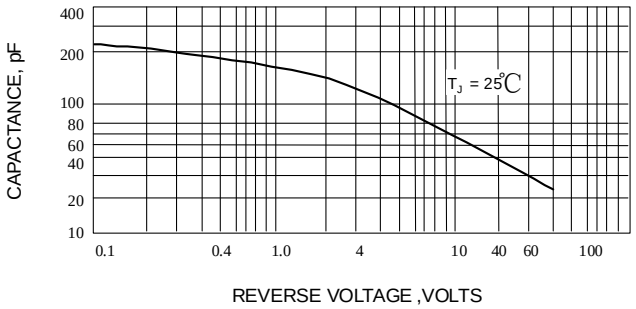


Fig. 4-TYPICAL JUNCTION CAPACITANCE