



# 1N5817 THRU 1N5819

## 1.0 AMP. Schottky Barrier Rectifiers



Voltage Range  
20 to 40 Volts  
Current  
1.0 Ampere

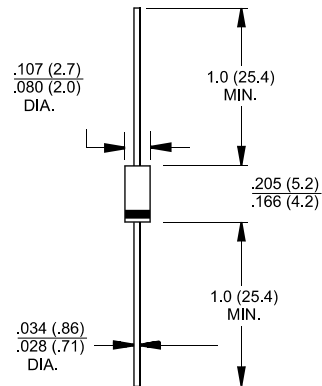
### Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

### Mechanical Data

- ✧ Cases: 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
- ✧ High temperature soldering guaranteed:  
250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Weight: 0.33 gram

### DO-41



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	1N5817	1N5818	1N5819	Units
Maximum Recurrent Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ T <sub>L</sub> = 90°C	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	25			A
Maximum Instantaneous Forward Voltage @ 1.0A	0.45	0.550	0.600	V
Maximum Instantaneous Forward Voltage @ 3.0A	0.750	0.875	0.900	V
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =100°C	1.0 10			mA mA
Typical Thermal Resistance (Note 1) R <sub>θJA</sub> R <sub>θJC</sub>	50 12			°C/W
Typical Junction Capacitance (Note 2)	110			pF
Operating Temperature Range T <sub>J</sub>	-65 to +125			°C
Storage Temperature Range T <sub>STG</sub>	-65 to +125			°C

Notes: 1. Thermal Resistance from Junction to Ambient Vertical PC Board Mounting, 0.375"(9.5mm) Lead Length.  
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

## RATINGS AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

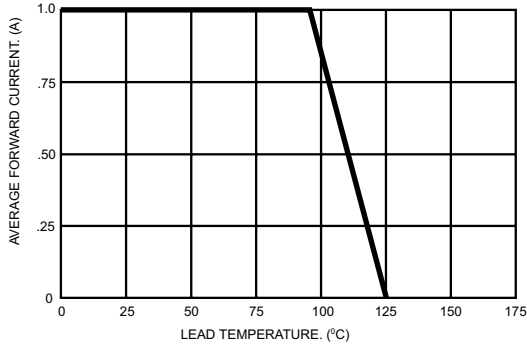


FIG.2- TYPICAL JUNCTION CAPACITANCE

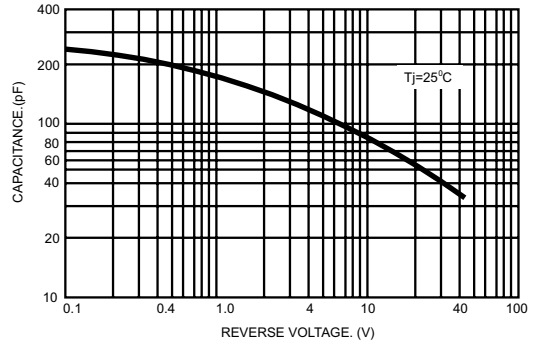


FIG.3- TYPICAL FORWARD CHARACTERISTICS

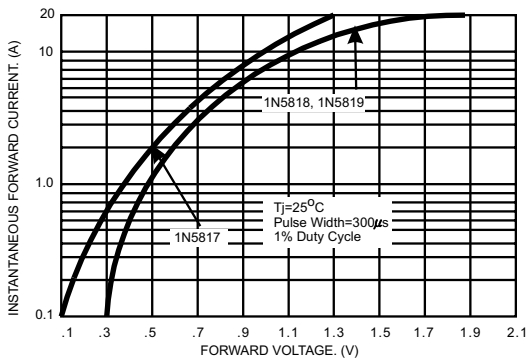


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

