



# 1N5817 THRU 1N5819

1.0 AMP. SCHOTTKY BARRIER RECTIFIERS

Voltage Range  
20 to 40 Volts  
Current  
1.0 Amperes

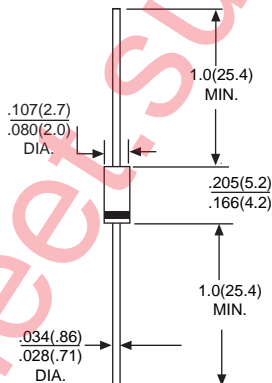
### Features

- \*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, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number		1N5817	1N5818	1N5819	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T <sub>L</sub> = 90°C	I <sub>F(AV)</sub>	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	25			A
Maximum Instantaneous Forward Voltage @ 1.0A	V <sub>F</sub>	0.45	0.550	0.600	V
Maximum Instantaneous Forward Voltage @ 3.0A	V <sub>F</sub>	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	I <sub>R</sub>	1.0 10			mA mA
Typical Thermal Resistance	R <sub>JC</sub> R <sub>JA</sub>	50 12			°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	110			pF
Operating Temperature Range	T <sub>J</sub>	-55 to +125			°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150			°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.

# RATING AND CHARACTERISTIC CURVES 1N5817 THRU 1N5819



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

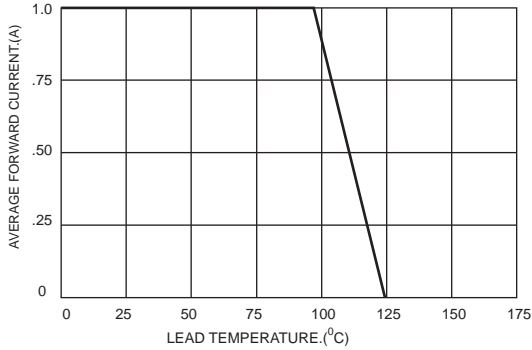


FIG.2-TYPICAL JUNCTION CAPACITANCE

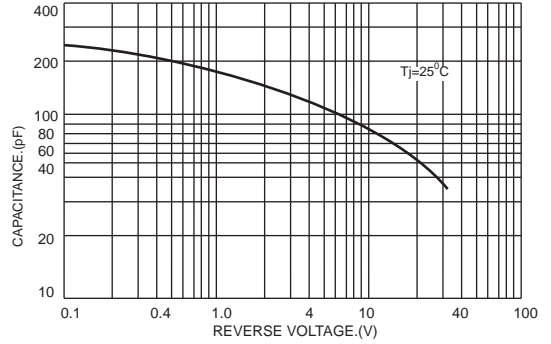


FIG.3-TYPICAL FORWARD CHARACTERISTICS

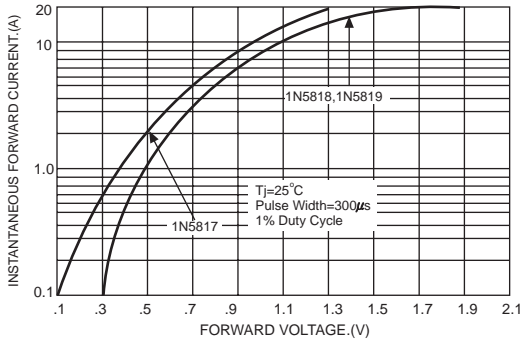


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

