



1N5817 THRU 1N5819

1.0 AMP. SCHOTTKY BARRIER RECTIFIERS

Voltage Range
20 to 40 Volts
Current
1.0 Amperes

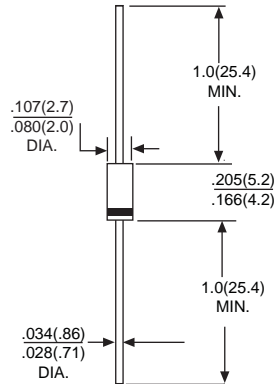
Features

- *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



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 _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T _L = 90°C	I _{F(AV)}	1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	25			A
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	0.45	0.550	0.600	V
Maximum Instantaneous Forward Voltage @ 3.0A	V _F	0.750	0.875	0.900	V
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 100°C	I _R	1.0 10			mA mA
Typical Thermal Resistance	R _{J-A} R _{J-C}	50 12			°C/W
Typical Junction Capacitance (Note 2)	C _J	110			pF
Operating Temperature Range	T _J	-55 to +125			°C
Storage Temperature Range	T _{STG}	-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

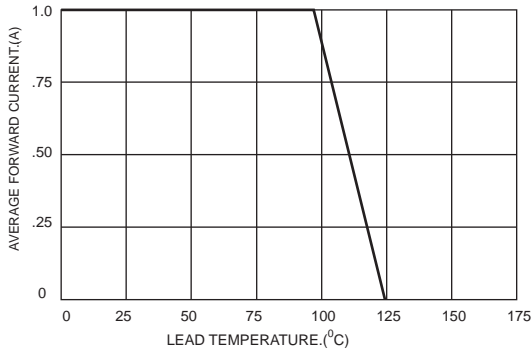


FIG.2-TYPICAL JUNCTION CAPACITANCE

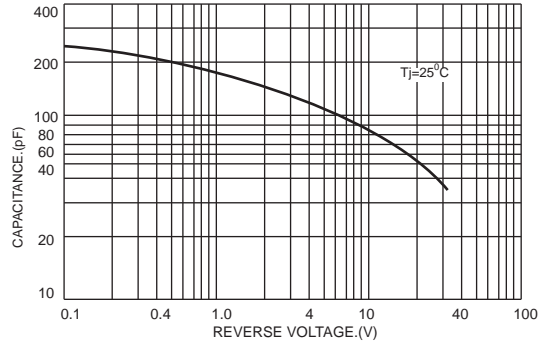


FIG.3-TYPICAL FORWARD CHARACTERISTICS

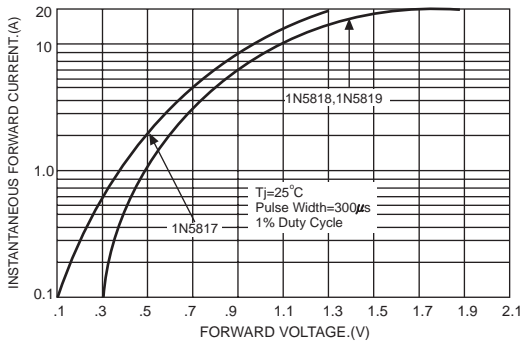


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

