

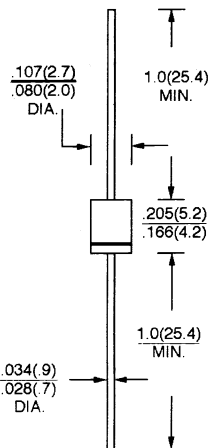


1N5817THRU 1N5819

1.0 AMP. SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE
20 to 40 Volts
CURRENT
1.0 Ampere

DO-41



Dimensions in inches and (millimeters)

FEATURES

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

MECHANICAL DATA

- * Case: DO - 41 Molded plastic
- * Epoxy: UL 94V - 0 rate flame retardant
- * Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Weight: 0.33grams

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	SYMBOLS	1N5817	1N5818	1N5819	UNITS
Maximum Recurrent 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 @ $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	1.0			A
Peak Forward Surge Current (8.3 ms half sine)	I_{FSM}	25			A
Maximum Instantaneous Forward Voltage @ 1.0A (Note 1)	V_F	0.450	0.550	0.600	V
Maximum Instantaneous Forward Voltage @ 3.0A (Note 1)	V_{FM}	0.750	0.875	0.900	V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	1.0 10			 mA mA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50			$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 3)	C_J	110	50		pF
Operating and Storage Temperature Range	T_J, T_{STG}	- 65 to + 125			$^\circ\text{C}$

NOTE: (1) Pulse test: 300 μs pulse width 1% duty cycle.

(2) Thermal Resistance Junction to Ambient Vertical PC Board Mounting, .375" (9.5mm) Lead Length with 1.5 x 1.5cm (38 x 38mm) copper pads.

(3) Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

RATINGS AND CHARACTERISTIC CURVES (1N5817 THRU 1N5819)

FIG. 1 - FORWARD CURRENT DERATING CURVE

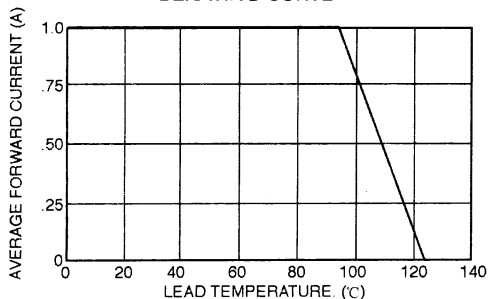


FIG. 2 - TYPICAL JUNCTION CAPACITANCE

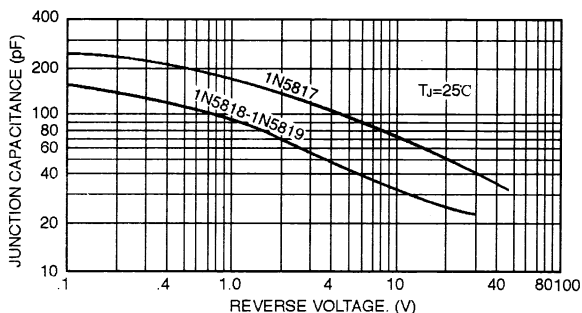


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

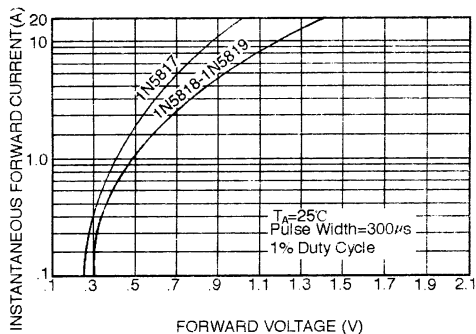


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

