

1N5817 - 1N5819

SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 20 - 40 Volts

I_o : 1.0 Ampere

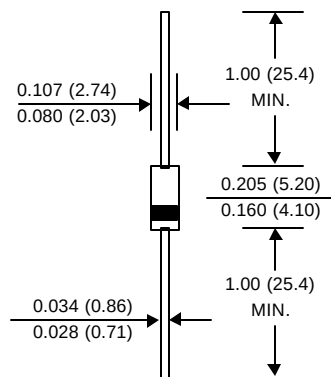
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * High efficiency
- * Low power loss
- * Low cost
- * Low forward voltage drop

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.339 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%.

RATING	SYMBOL	1N5817	1N5818	1N5819	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	Volts
Maximum RMS Voltage	V _{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	40	Volts
Maximum Average Forward Current 0.375", 9.5mm Lead Length at T _L = 90 °C	I _{F(AV)}	1.0			Amp.
Peak Forward Surge Current, 8.3ms single half sine wave Superimposed on rated load (JEDEC Method) T _L = 70 °C	I _{FSM}	25			Amps.
Maximum Forward Voltage at I _F = 1.0 Amp.	V _F	0.45	0.55	0.6	Volt.
Maximum Reverse Current Ta = 25 °C at Rated DC Blocking Voltage (Note 1) Ta = 100 °C	I _R	1.0			mA
	I _{R(H)}	10			mA
Typical Thermal Resistance (Note 2)	R _{θJL}	15			°C/W
Typical Junction Capacitance (Note 3)	C _J	110			pF
Junction Temperature Range	T _J	- 65 to + 125			°C
Storage Temperature Range	T _{STG}	- 65 to + 125			°C

Notes :

- (1) Pulse Test : Pulse Width = 300 μs, Duty Cycle = 2%.
- (2) Thermal Resistance from junction to lead, PC board Mounting with 0.375" (9.5mm) Lead Lengths and 1.5 in² (38.1mm²) copper pads.
- (3) Measured at 1 MHz and applied reverse voltage of 4.0 volts.

UPDATE : SEPTEMBER 12, 1998

RATING AND CHARACTERISTIC CURVES (1N5817 - 1N5819)

FIG.1 - FORWARD CURRENT DERATING CURVE

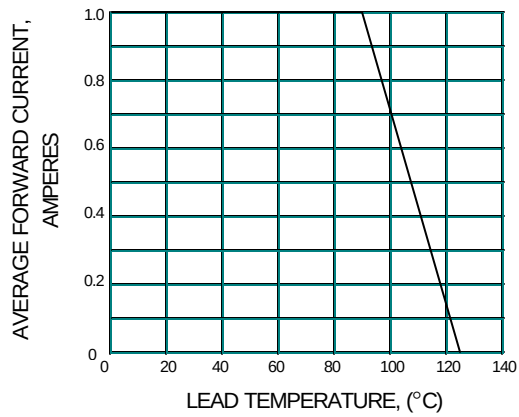


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

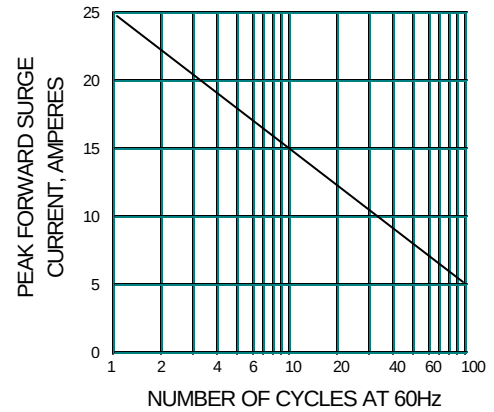


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

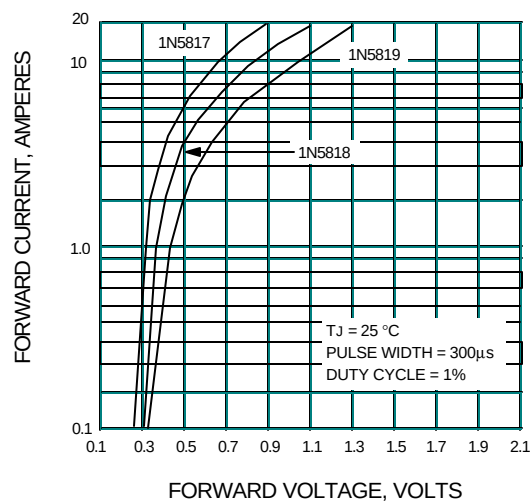


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

