1 AMP SCHOTTKY BARRIER RECTIFIER

1N5817 THRU 1N5819

TECHNICAL SPECIFICATION

FEATURES

- *Low cost construction utilizing void - free moulded plastic technique*
- *Plastic package has Underwriters Laboratories Flammability Classification 94V-0*
- *Diffused junction*
- *High surge current capability*
- *Low leakage*
- *High temperature soldering capability : 250°C/10 seconds/9.5mm (.375in.) lead length at 2.3kg (5lb) tension*
- *Easily cleaned with Freon, Alcohol, Chlorothene and other similar solvents*

VOLTAGE
20 to 40 Volts

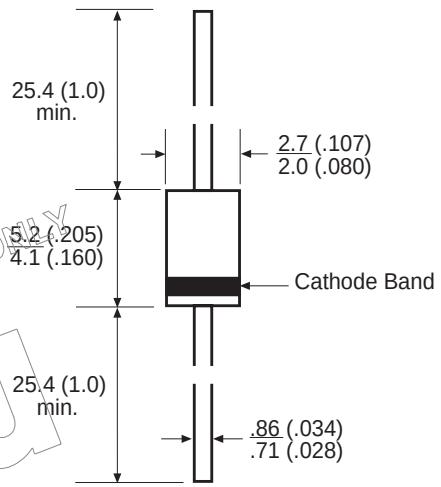
CURRENT
1.0 Amp

MECHANICAL DATA

Case : JEDEC DO-41, moulded plastic.
Terminals : Plated axial leads, solderable per MIL-STD-202, Method 208.
Polarity : Colour band denotes cathode end.
Mounting Position : Any
Weight : 0.36 grams (0.012 ounce)

DIMENSIONS - millimeters (inches)

DO-41



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

Characteristics		Symbols	1N5817	1N5818	1N5819	Units
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	30	40	V
Maximum RMS Input Voltage		V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage		V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current @ T_L = 90°C (Note 3) $I_{F(AV)}$ 1.0A		$I_{F(AV)}$	1.0			A
Maximum Average Forward Surge Current, Half Cycle @ 60Hz. Superimposed on rated load JEDEC Method		I_{FSM}	25			A
Storage and Operating Junction Temperature Range		T_j T_{STG}	-60 to + 125			V
Maximum Forward Voltage Drop	@ I_F = 1AMP	V_F	0.450	0.550	0.60	V
	@ I_F = 3AMP	V_F	0.750	0.875	0.90	V
Maximum Rverse Leakage Current @ V_{RRM}	@ T_A = 25°C	I_R	1.0			mA
	@ T_A = 100°C	I_R	10			mA
Typical Thermal Resistance, Junction to Ambient (Note 1)		R_{thA}	130			°C/W
Typical Junction Capacitance (Note 2)		C_J	110			pF

Notes :

1. Thermal Resistance from Junction to Ambient with vertical mounting to pc board (12.7mm lead Length).
2. Measured at 1MHz and applied reverse voltage at 4.0 volts.
3. Valid provided that leads are kept at specified temperature at a distance of 10mm from case.

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

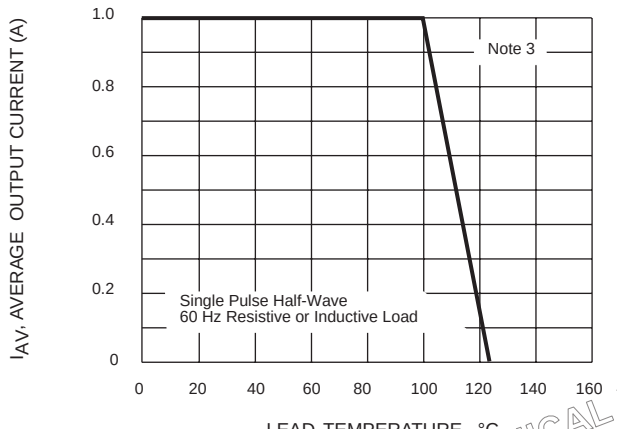

FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

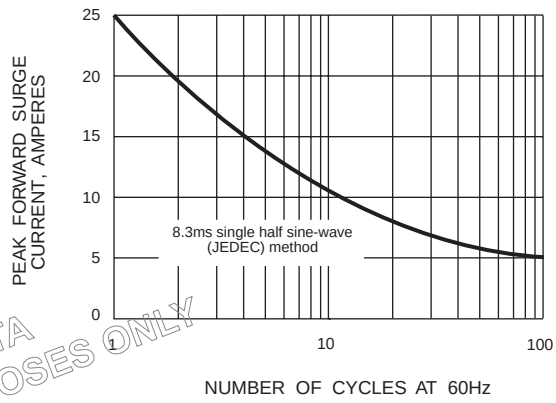

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

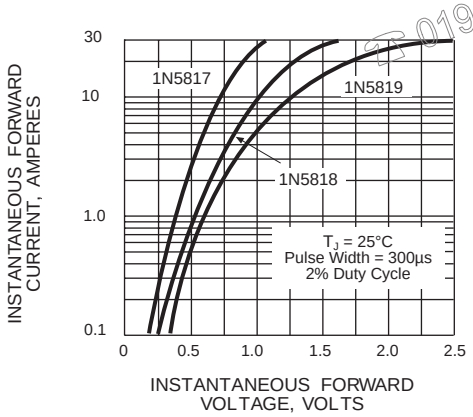

FIG. 4 - TYPICAL JUNCTION CAPACITANCE