



1 AMP SCHOTTKY BARRIER RECTIFIER 1N5817 THRU 1N5819

TECHNICAL SPECIFICATION

<p>FEATURES</p> <ul style="list-style-type: none"> ● 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 <hr style="width: 25%; margin-left: 0;"/> <p>MECHANICAL DATA</p> <p>Case : JEDEC DO-41, moulded plastic.</p> <p>Terminals : Plated axial leads, solderable per MIL-STD-202, Method 208.</p> <p>Polarity : Colour band denotes cathode end.</p> <p>Mounting Position : Any</p> <p>Weight : 0.36 grams (0.012 ounce)</p>	<p style="text-align: center;">VOLTAGE 20 to 40 Volts</p> <p style="text-align: right;">CURRENT 1.0 Amp</p> <p style="text-align: center;">DIMENSIONS - millimeters (inches)</p> <p style="text-align: right;">DO-41</p>
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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 @ $T_L = 90^\circ\text{C}$ (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	@ $I_F = 1\text{AMP}$	0.450	0.550	0.60	V
	@ $I_F = 3\text{AMP}$	0.750	0.875	0.90	V
Maximum Rverse Leakage Current @ V_{RRM}	@ $T_A = 25^\circ\text{C}$	1.0			mA
	@ $T_A = 100^\circ\text{C}$	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

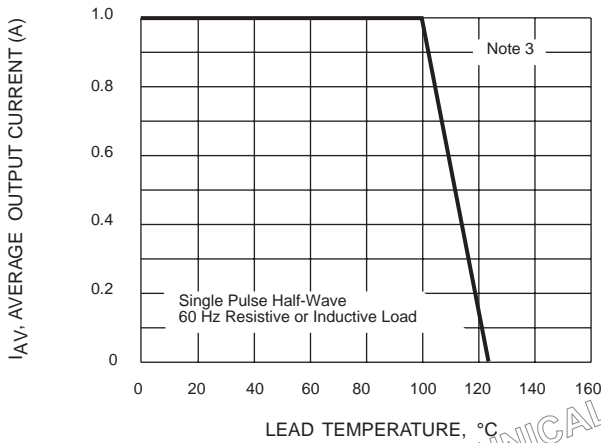


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

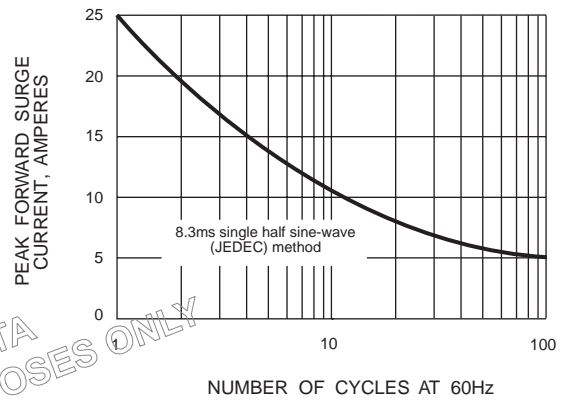


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

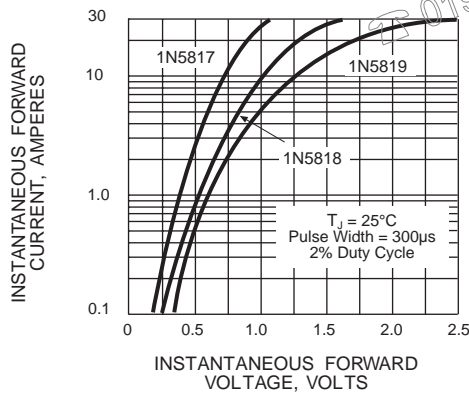
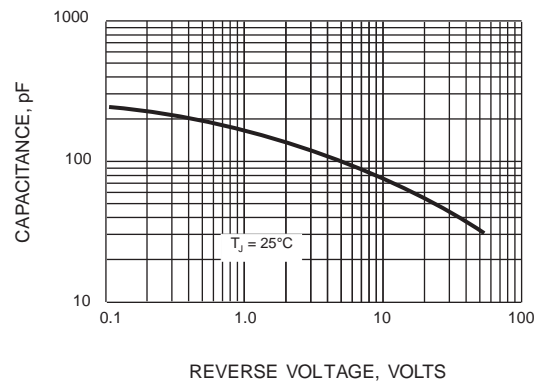


FIG. 4 - TYPICAL JUNCTION CAPACITANCE



TECHNICAL DATA
FOR REFERENCE PURPOSES ONLY
Anglia
01945 47 48 49