



1N5817 THRU 1N5819 SPECIFICATIONS

Rev. A

1A SCHOTTKY BARRIER RECTIFIERS

A technical diagram of a 1A Schottky Barrier Rectifier. The component is shown in a side profile. It has a central body with a cathode band on the left. Two leads extend from the body. Dimension A is the total length of the two leads. Dimension B is the length of the body. Dimension C is the diameter of the leads. Dimension D is the diameter of the body. A polarity symbol (a triangle pointing to a horizontal line) is shown on the left lead.

Value Inch[mm]		
Dim.	Min.	Max.
A	1.000[25.40]	---
B	0.166[4.22]	0.205[5.21]
C	0.080[2.03]	0.107[2.72]
D	0.028[0.71]	0.034[0.86]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. EXTREMELY LOW VF
3. LOW POWER LOSS/HIGH EFFICIENCY
4. LOW STORED CHARGE
5. MAJORITY CARRIER CONDUCTION
6. CASE: TRANSFER MOLDED DO-41
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. POLARITY: INDICATED BY CATHODE BAND
9. WEIGHT: 0.34 GRAMS
10. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
11. RoHS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +125°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

RATINGS	SYMBOL	VALUE	UNITS
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT, 0.375"(9.5mm) LEAD LENGTH (SEE FIG.1)	I_O	1.0	A
PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	25	A
TYPICAL JUNCTION CAPACITANCE(NOTE1)	C_J	110	pF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	50	°C/W
MAXIMUM REVERSE CURRENT AT 25°C	I_R	500	uA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	10,000	uA

1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2. BOTH LEADS ATTACHED TO HEAT SINK 20x20x1T (mm) COPPER PLATE AT LEAD LENGTH 5mm

3. MAXIMUM FORWARD VOLTAGE AT I_O DC

PART NUMBER	MAX. RECURRENT PEAK REVERSE VOLTAGE V_{RRM} (V)	MAX. RMS VOLTAGE V_{RMS} (V)	MAX. DC BLOCKING VOLTAGE V_{DC} (V)	MAX. FORWARD VOLTAGE V_F (V)
1N5817	20	14	20	0.45
1N5818	30	21	30	0.55
1N5819	40	28	40	0.60

RATING AND CHARACTERISTIC CURVES

FIG. 1 - FORWARD CURRENT DERATING CURVE

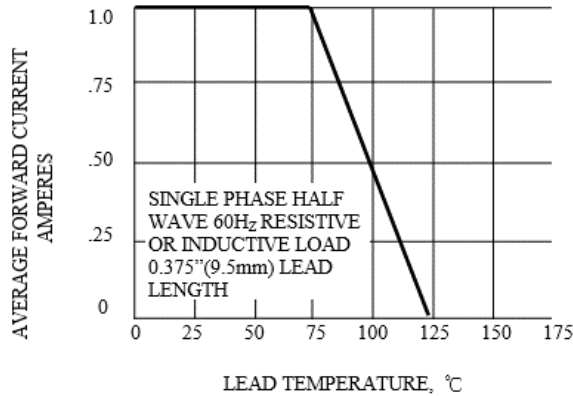


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

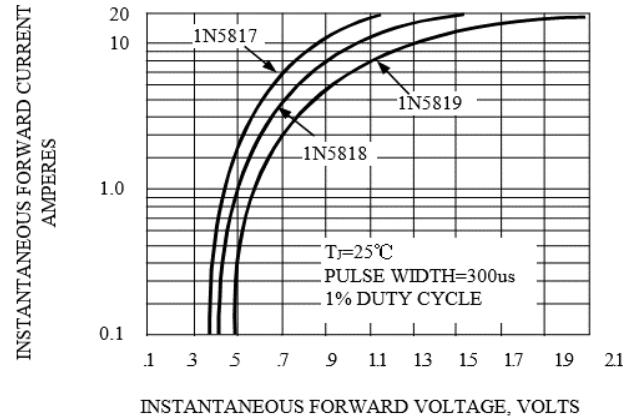


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

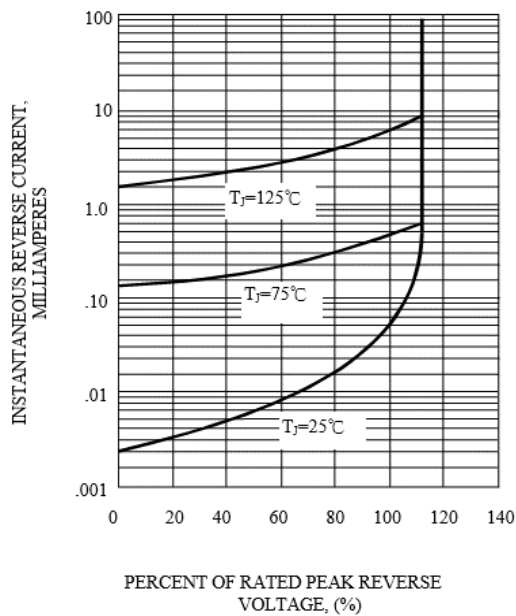
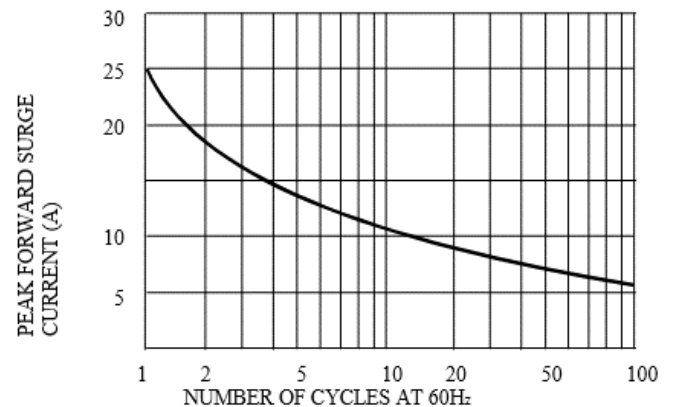


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE

