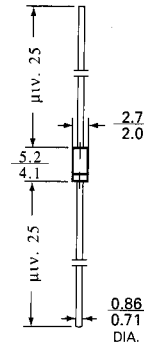


# 1N 5817 ...1N 5819 SCHOTTKY BARRIER DIODE

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guardring for overvoltage protection
- Low power loss, high efficiency
- High current capability  
low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:  
250 °C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3 Kg) tension



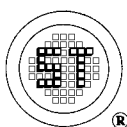
Dimensions in mm

Weight Approx. 0.34g

## Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Characteristic	Symbols	1N5817	1N5818	1N5819	Units
* Maximum repetitive 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 non-repetitive peak reverse voltage	$V_{RSM}$	24	36	48	Volts
* Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_L=90$ °C	$I_{(AV)}$	1.0			Amp
* Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_L=70$ °C	$I_{FSM}$	25.0			Amp
* Maximum instantaneous forward voltage at 1.0A (NOTE 1)	$V_F$	0.450	0.550	0.600	Volts
* Maximum instantaneous forward voltage at 3.1A (NOTE 1)	$V_F$	0.750	0.875	0.900	Volts
* Maximum instantaneous reverse current at rated DC reverse voltage $T_A=25$ °C (NOTE 1) $T_A=100$ °C	$I_R$	1.0 10.0			mA
Typical thermal resistance (NOTE 2)	$R_{qJA}$ $R_{qJL}$	50.0 15.0			°C/W
Typical junction capacitance (NOTE 3)	$C_J$	110.0			pF
* Storage and operating junction temperature range	$T_J, T_{STG}$	-65 to + 125			°C



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FIG. 1-FORWARD CURRENT DERATING CURVE

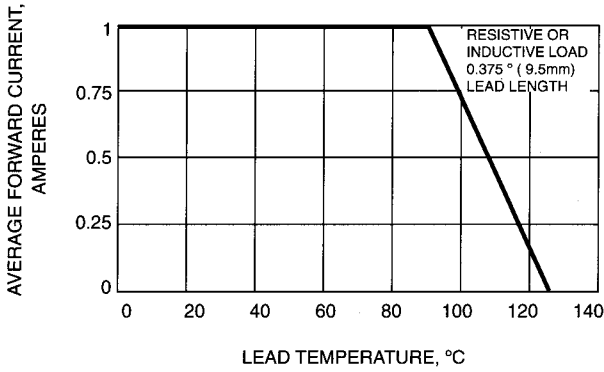


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

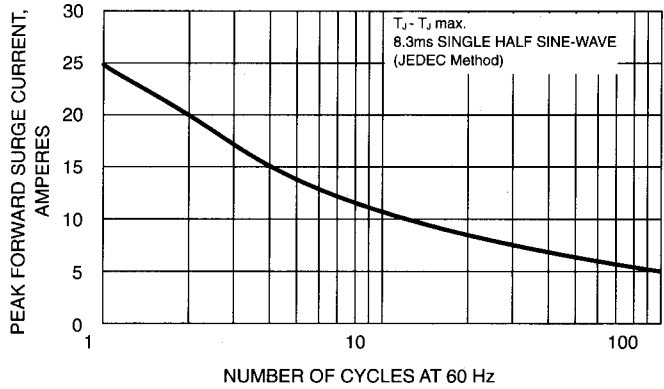


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

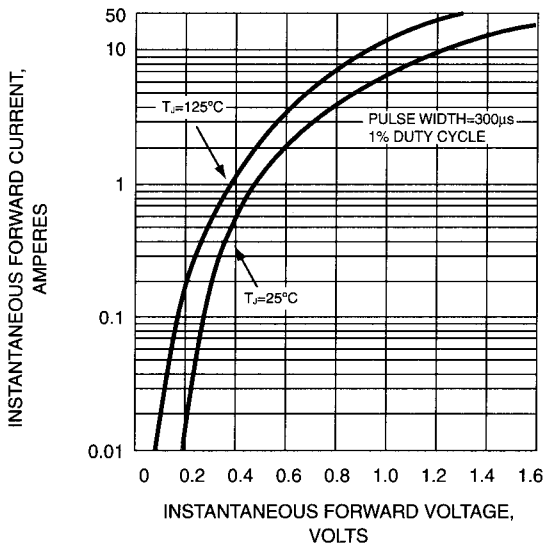


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

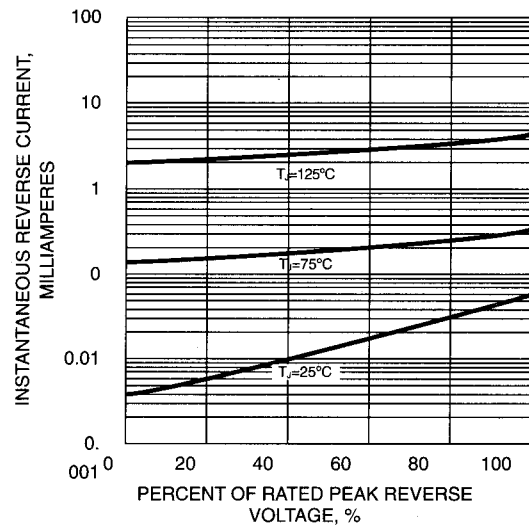


FIG. 5-TYPICAL JUNCTION CAPACITANCE

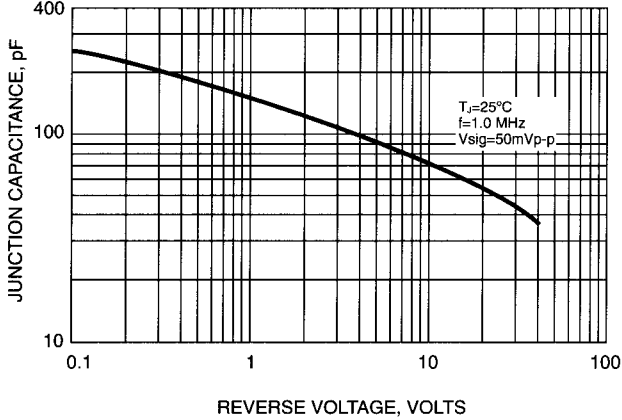
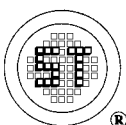
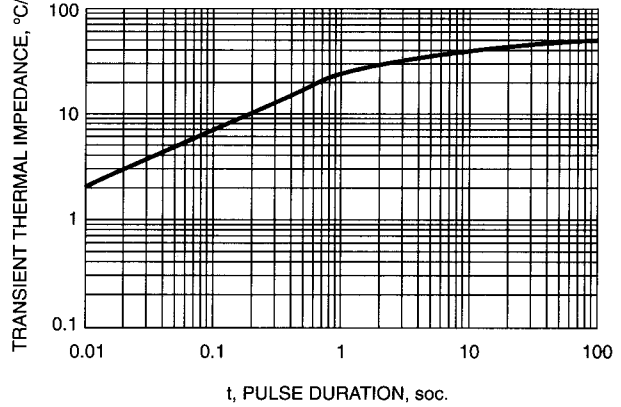


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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