

## Schottky Barrier Rectifier

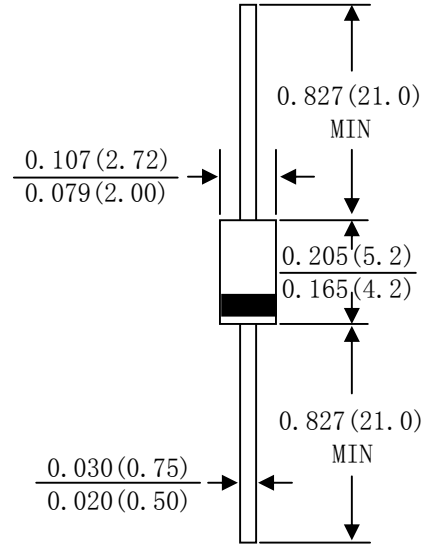
### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94-0
- Metal silicon junction, majority carrier conduction
- low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10seconds, 0.375"(9.5mm) lead length, 5lbs. (2.3kg) tension

### Mechanical Data

- **Case:** JEDEC DO-41 molded plastic body
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

### 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 60Hz, resistive or inductive load, For capacitive load derate current by 20%.

Type Number	SYMBOL	1N5817	1N5818	1N5819	Units
Maximum recurrent peak reverse voltage	$V_{RM}$	20	30	40	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	V
Maximum average rectified output current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	1.0			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25.0			A
Maximum instantaneous forward voltage at 1.0A	$V_F$	0.45	0.55	0.60	V
Maximum DC reverse current @TA=25°C	$I_R$	0.5			mA
At Rated DC blocking voltage @TA=100°C		10.0			
Typical junction capacitance (Note 1)	$C_j$	110.0			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50.0			°C/W
Operating junction temperature range	$T_j$	-55 to +125			°C
Storage temperature range	$T_{STG}$	-55 to +150			°C

Note: 1. Measured at 1.0 MHz and applied reverse Voltage of 4.0V D.C

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B. mounted.

# RATINGS AND CHARACTERISTIC CURVES 1N5817 THRU 1N5819

FIG. 1- FORWARD CURRENT DERATING CURVE

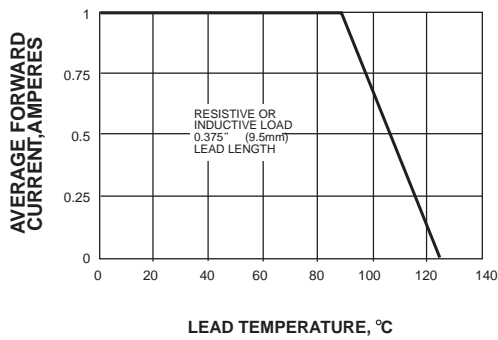


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

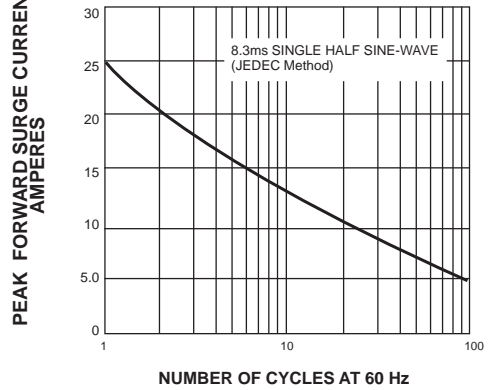


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

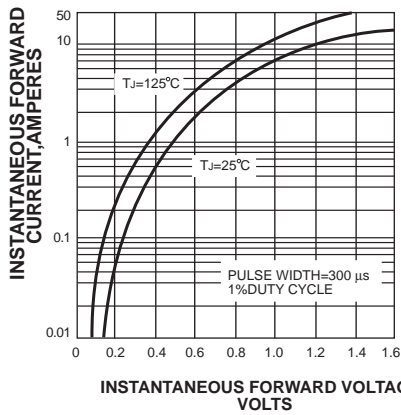


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

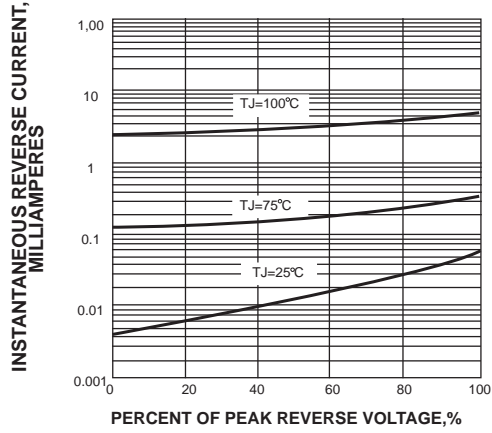


FIG. 5-TYPICAL JUNCTION CAPACITANCE

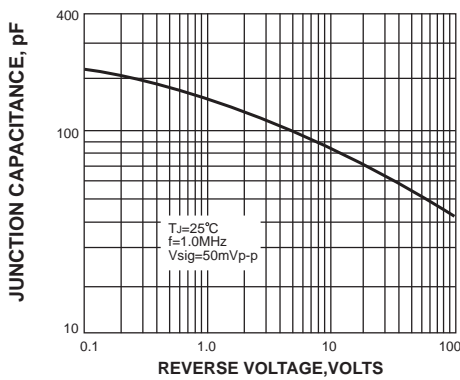
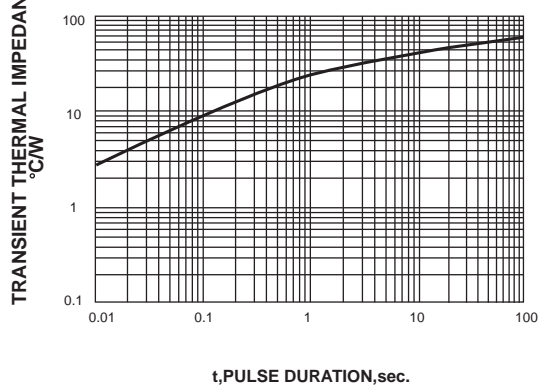
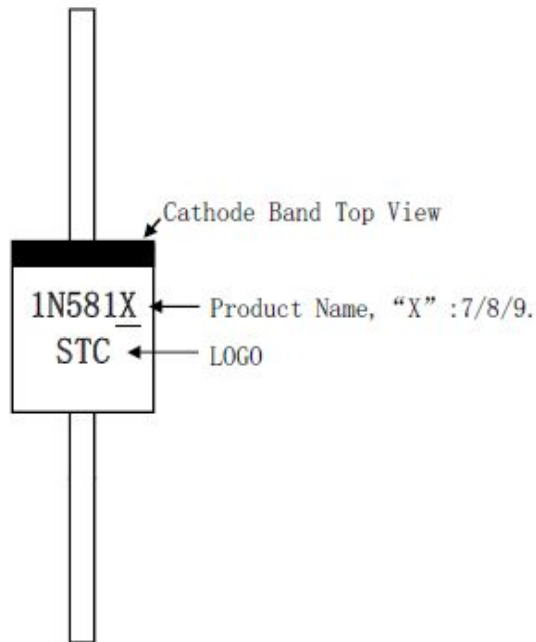


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



## PRINTING INSTRUCTIONS

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