



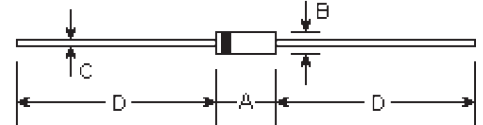
# 1N5817 THRU 1N5819

**SCHOTTKY BARRIER RECTIFIER**  
**Reverse Voltage - 20 to 40 Volts**  
**Forward Current - 1.0 Ampere**

## 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. (2.3Kg) tension

## DO-41



## Mechanical Data

- **Case:** DO-41 molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.012 ounce, 0.33 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.165	0.205	4.2	5.2	
B	0.079	0.106	2.0	2.7	ϕ
C	0.028	0.034	0.71	0.86	ϕ
D	1.000	-	25.40	-	

## Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	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 $T_L=90^\circ\text{C}$	$I_{(AV)}$	1.0			Amp
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at $T_L=70^\circ\text{C}$	$I_{FSM}$	25.0			Amps
Maximum instantaneous forward voltage at 1.0A (Note 1) Maximum instantaneous forward voltage at 3.1A (Note 1)	$V_F$ $V_F$	0.450 0.750	0.550 0.875	0.600 0.900	Volts Volts
Maximum instantaneous reverse current $T_J=25^\circ\text{C}$ (Note 1) at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	1.0 10.0			mA
Typical junction capacitance (Note 3)	$C_J$	110.0			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	50.0 15.0			°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +125			°C

### Notes:

- (1) Pulse test: 300µs pulse width, 1% duty cycle
- (2) Thermal resistance from junction to lead, and/or to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 1.5X1.5" (38X38mm) copper pads
- (3) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

# RATINGS AND CHARACTERISTIC CURVES

