



# 1N5817 thru 1N5819

Schottky Barrier Rectifiers  
Reverse Voltage 20 to 40 Volts    Forward Current 1.0 Ampere

## Features

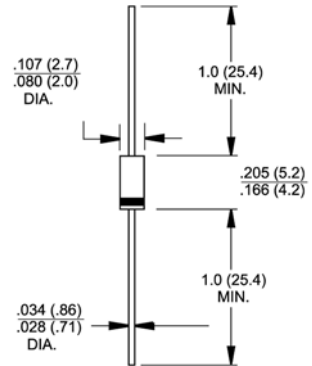
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low power loss, high efficiency
- ◆ For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- ◆ Guardring for overvoltage protection



**DO-204AL (DO-41)**

## Mechanical Data

- ◆ **Case:** DO-204AL(DO-41) molded plastic body
- ◆ **Terminals:** Plated leads, solderable per MIL-STD-750, Method 2026  
High temperature soldering guaranteed: 250°C/10 seconds at terminals 0.375" (9.5mm) lead length, 5lbs (2.3kg) tension for axials
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Weight:** plastic body DO-41: 0.33 gram, 0.012 ounce



## Maximum Ratings and Electrical Characteristics

Dimensions in inches and (millimeters)

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Parameter	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 $T_L=90^\circ\text{C}$	$I_{F(AV)}$	1.0			Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_L=70^\circ\text{C}$	$I_{FSM}$	25.0			Amps
Maximum instantaneous forward voltage at 1.0 (Note 1)	$V_F$	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1 (Note 1)	$V_F$	0.750	0.875	0.900	Volts
Maximum average reverse current at rated DC blocking voltage (Note 1)	$I_R$	1.0 10.0			mA
Typical thermal resistance (Note 2)	- junction-to-ambient (plastic)	$R_{\theta JA}$			$^\circ\text{C/W}$
	- junction-to-lead (plastic)	$R_{\theta JL}$			
Typical junction capacitance at 4.0V, 1.0MHz	$C_J$	110			pF
Operating junction temperature range	$T_J$	-55 to +125			$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150			$^\circ\text{C}$

- Notes:**
1. Pulse test: 300 $\mu\text{s}$  pulse width, 1% duty cycle
  2. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.375" (9.5mm) lead length with 1.5 x 1.5" (38 x 38mm) copper pads

# RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

