

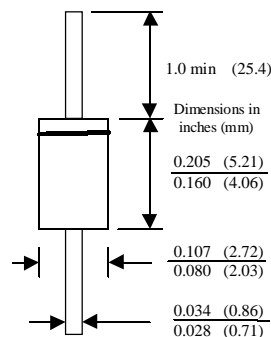
# 1N5817 - 1N5819

## Features

- 1.0 ampere operation at  $T_A = 90^\circ\text{C}$  with no thermal runaway.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.



**DO-41**  
COLOR BAND DENOTES CATHODE



## 1.0 Ampere Schottky Barrier Rectifiers

### Absolute Maximum Ratings\* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$I_O$	Average Rectified Current .375" lead length @ $T_A = 90^\circ\text{C}$	1.0	A
$i_{f(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	25	A
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	1.25 12.5	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	80	$^\circ\text{C}/\text{W}$
$T_{\text{stg}}$	Storage Temperature Range	-65 to +125	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-65 to +125	$^\circ\text{C}$

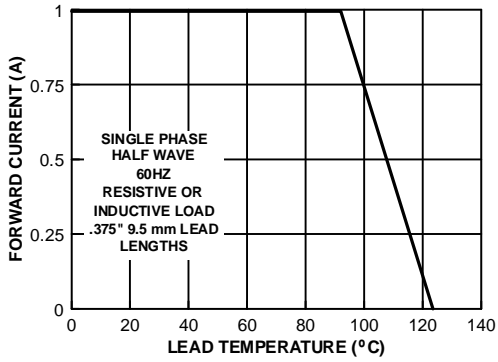
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

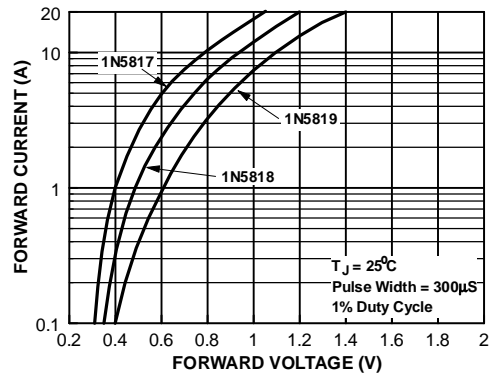
Parameter	Device			Units
	1N5817	1N5818	1N5819	
Peak Repetitive Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
DC Reverse Voltage (Rated $V_R$ )	20	30	40	V
Maximum Reverse Current @ rated $V_R$	$T_A = 25^\circ\text{C}$	0.5		mA
	$T_A = 100^\circ\text{C}$	10		mA
Maximum Forward Voltage @ 1.0 A	450	550	600	mV
	@ 3.0 A	750	875	900
Typical Junction Capacitance $V_R = 4.0\text{ V}$ , $f = 1.0\text{ MHz}$	110			pF

Typical Characteristics

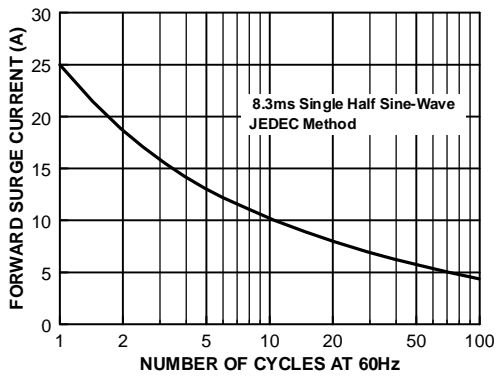
Forward Current Derating Curve



Forward Characteristics



Non-Repetitive Surge Current



Junction Capacitance

