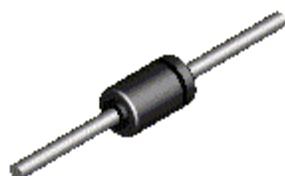


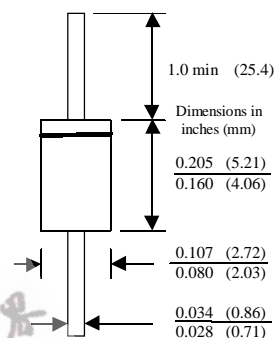
## 1N5817 - 1N5819

### 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 $V_R$	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	0.5 10		mA mA
Maximum Forward Voltage @ 1.0 A	450	550	600	mV
Maximum Forward Voltage @ 3.0 A	750	875	900	mV
Typical Junction Capacitance $V_R = 4.0\text{ V}$ , $f = 1.0\text{ MHz}$		110		pF

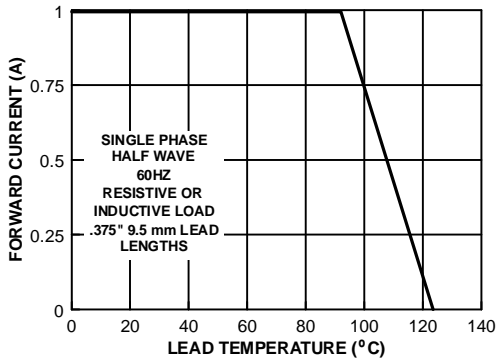
# Schottky Barrier Rectifiers

(continued)

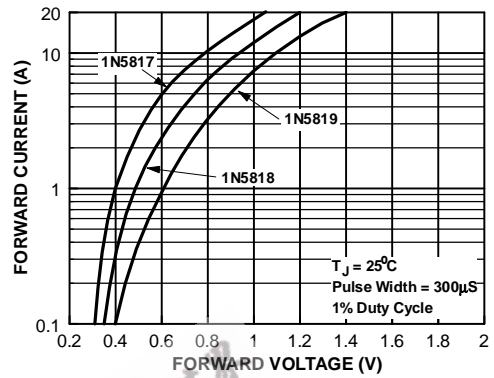
1N5817-1N5819

## Typical Characteristics

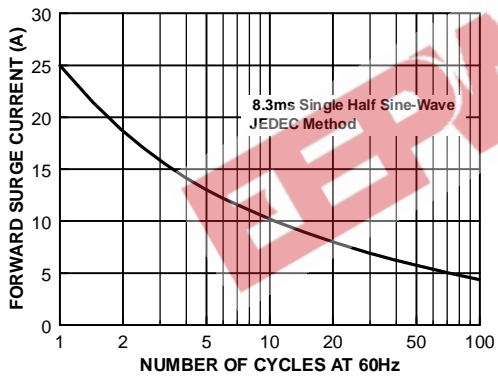
Forward Current Derating Curve



Forward Characteristics



Non-Repetitive Surge Current



Junction Capacitance

