

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

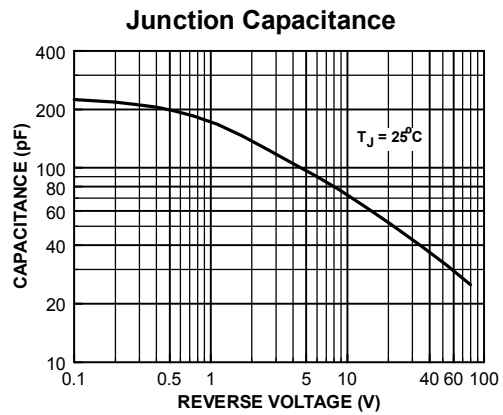
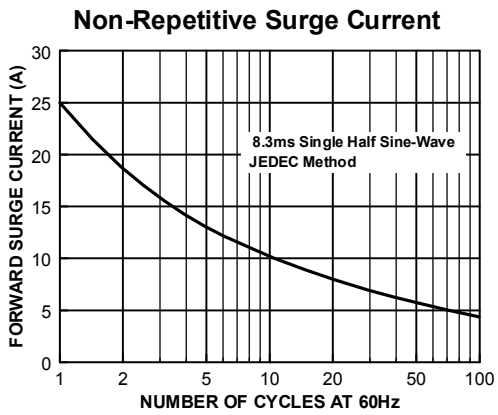
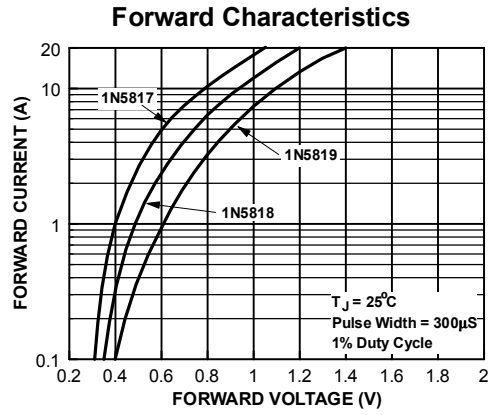
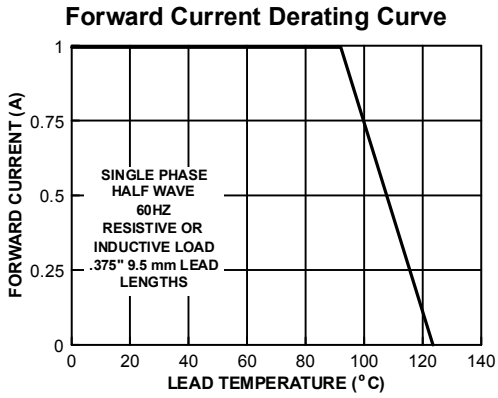
Symbol	Parameter	Value	Units
$I_{F(AV)}$	Average Rectified Current .375" lead length @ $T_A = 90^\circ\text{C}$	1.0	A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	25	A
P_D	Total Device Dissipation Derate above 25°C	1.25 12.5	W mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	80	$^\circ\text{C}/\text{W}$
T_{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

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

Typical Characteristics



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