

# 1N5817 THRU 1N5819

## SCHOTTKY BARRIER RECTIFIER



康比電子  
HORNBY ELECTRONIC

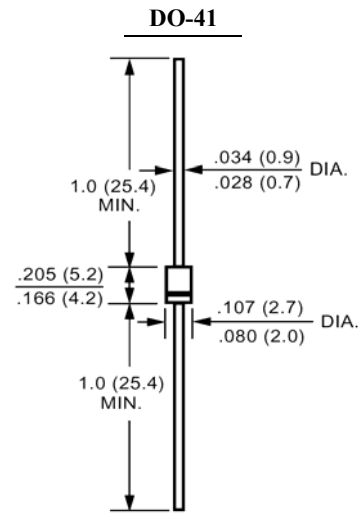
**REVERSE VOLTAGE:** 20 to 40 VOLTS  
**FORWARD CURRENT:** 1.0 AMPERE

### FEATURES

- High current capability
- 1.0 ampere operation at  $T_L=90^\circ\text{C}$  with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and porlarlity protection applications
- Suffix "H" indicates Halogen-free parts, ex. 1N5817H.

### MECHANICAL DATA

Case : Molded plastic, DO-41  
Epoxy : UL 94V-O rate flame retardant  
Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed  
Polarity : Color band denotes cathode end  
Mounting position : Any



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Parameter	Symbols	1N5817	1N5818	1N5819	Units
Maximum Recerrent 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 Average Forward Rectified Current .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 (JEDEC method)	$I_{FSM}$	25.0			Amp
Maximum Forward Voltage at 1.0A DC	$V_F$	0.450	0.550	0.600	Volts
Maximum Forward Voltage at 3.0A DC		0.750	0.875	0.900	
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	0.2 10			mAmp
Typical Junction Capacitance (Note 1)	$C_J$	110			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50.0			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150			$^\circ\text{C}$

#### NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and form junction to lead at 0.5"(12.7mm) lead length P.C.B. Mounted.

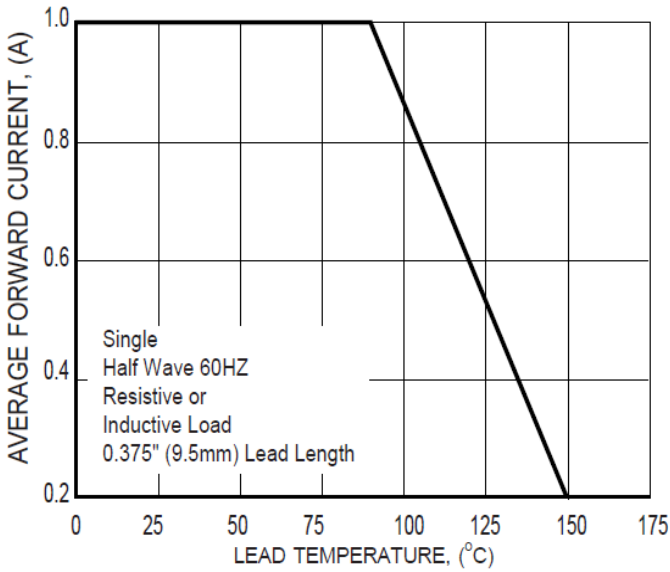
# 1N5817 THRU 1N5819

## SCHOTTKY BARRIER RECTIFIER

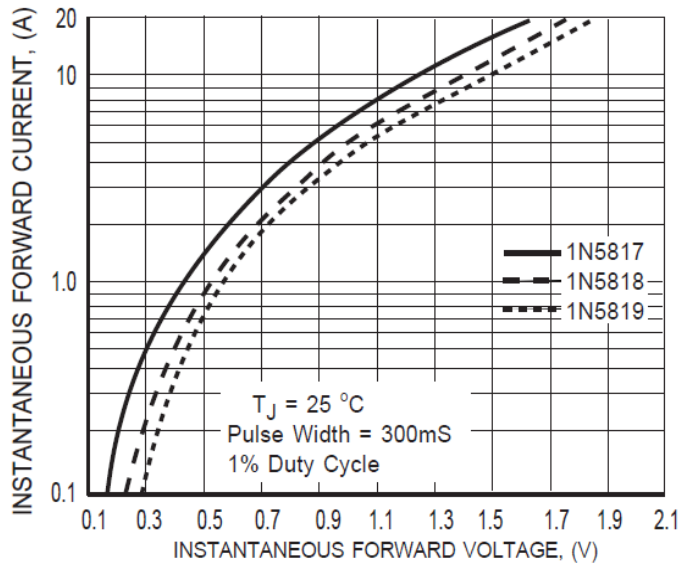


康比電子  
HORNBY ELECTRONIC

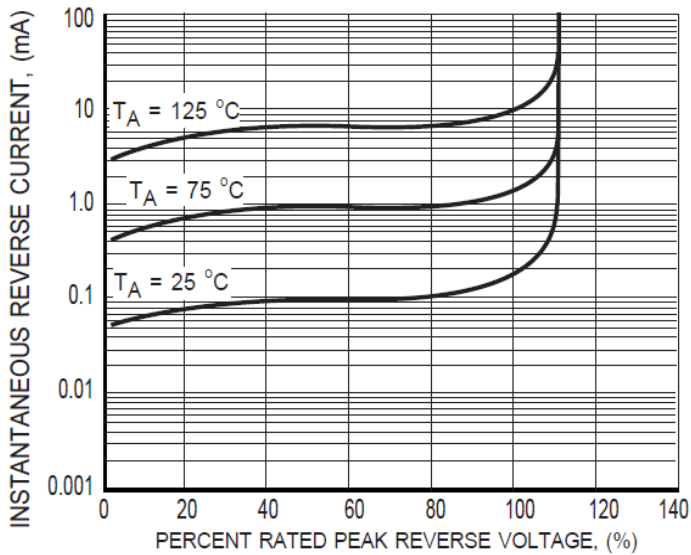
### RATINGS AND CHARACTERISTIC CURVES



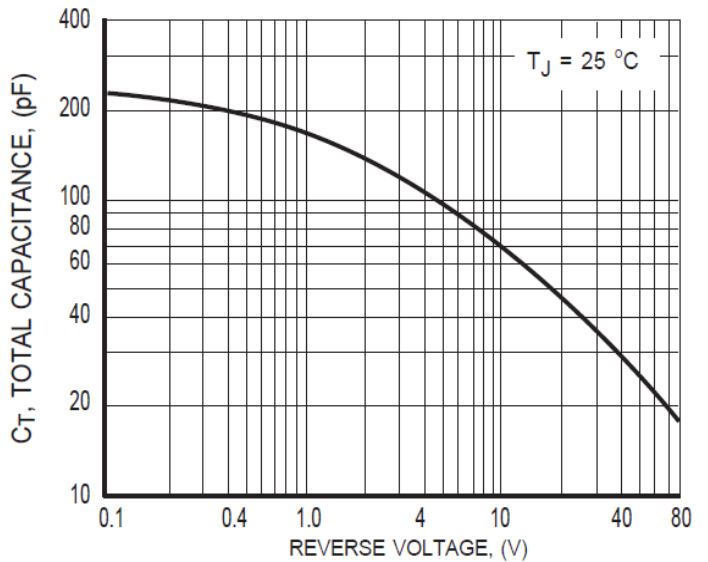
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



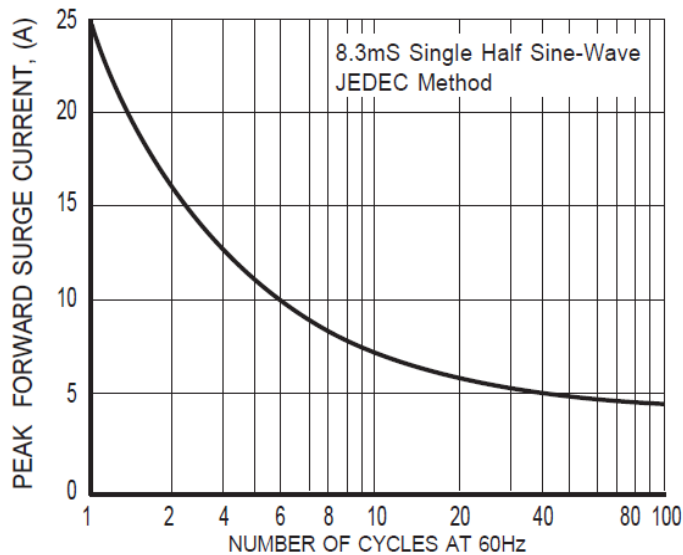
**FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG.3 TYPICAL REVERSE CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**