

1N5817 THRU 1N5819

SCHOTTKY BARRIER RECTIFIER



康比電子
HORNBY ELECTRONIC

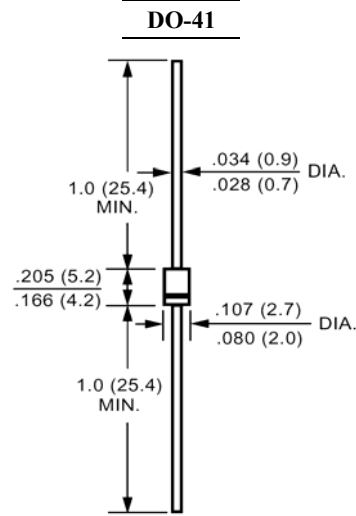
REVERSE VOLTAGE: 20 to 40 VOLTS
FORWARD CURRENT: 1.0 AMPERE

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°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

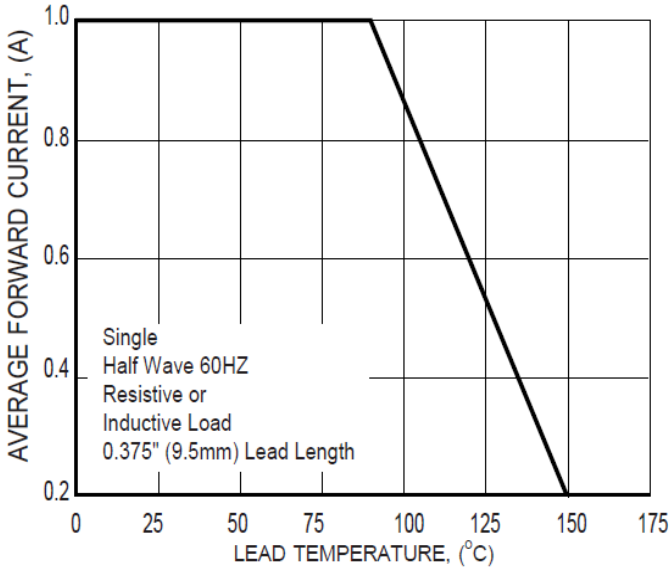


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

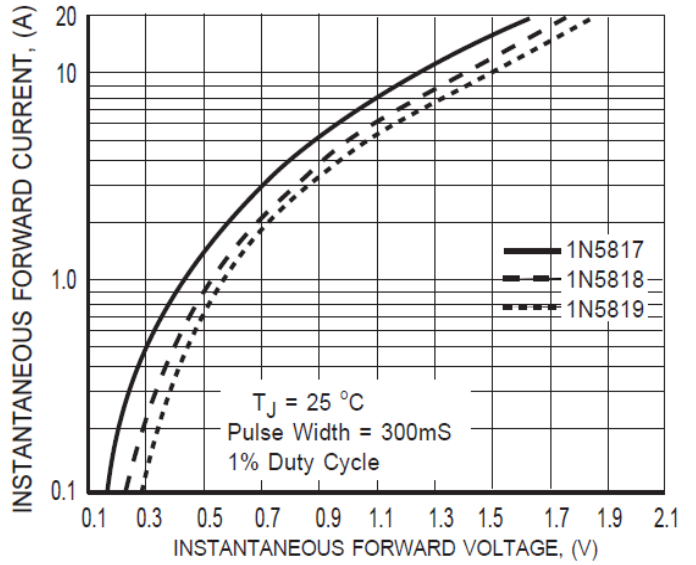


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

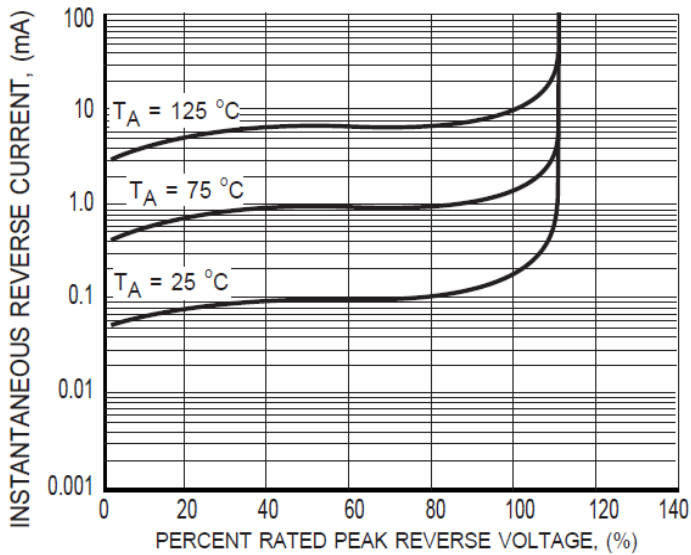


FIG.3 TYPICAL REVERSE CHARACTERISTICS

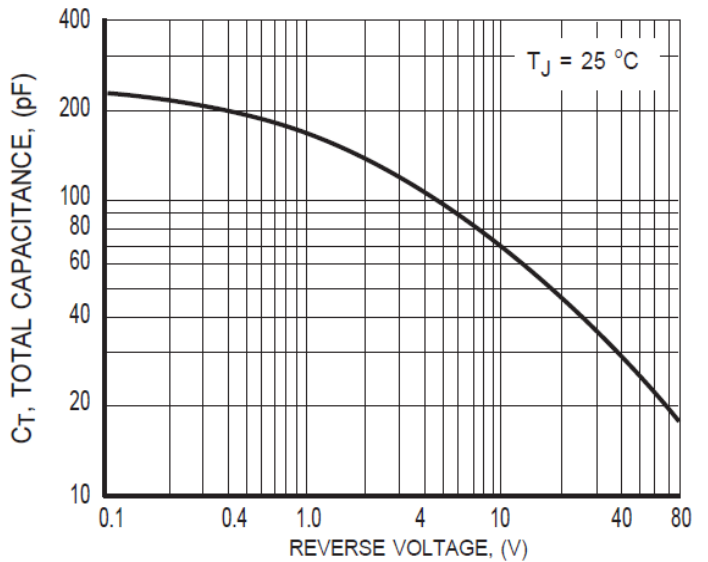


FIG.4 TYPICAL JUNCTION CAPACITANCE

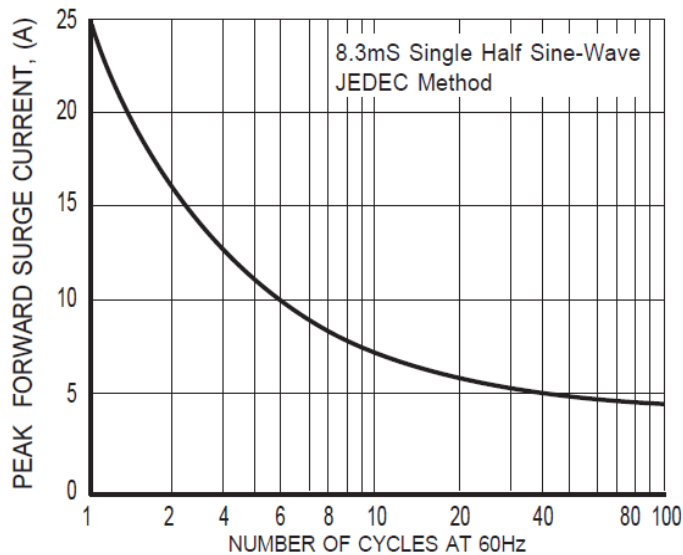


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT