

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 TO 40 VOLTS

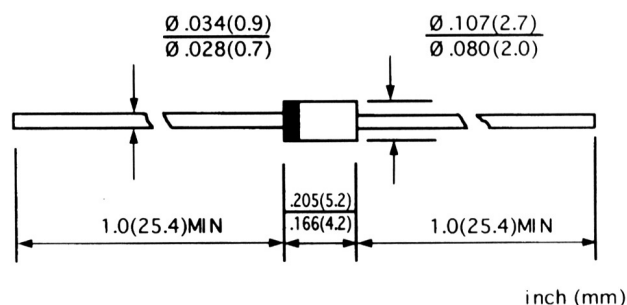
CURRENT: 1.0 AMPERES

FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop, Low switching losses
- High surge capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- The plastic material carries U/L recognition 94V-O

MECHANICAL DATA

Case: JEDEC DO-41, molded plastic
 Terminals: Axial leads, solder able per MIL-STD-202, Method 208
 Polarity: Color band denotes cathode
 Weight: 0.012 ounce, 0.34 gram
 Mounting position: Any

DO-41

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameters		1N5817	1N5818	1N5819	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current 9.5mm Lead Length, @ $T_A=90^\circ\text{C}$	I_{AV}	1.0			A
Peak Forward Surge Current @ $T_j=70^\circ\text{C}$ 8.3ms Single half-sine-wave superimposed on rated load	I_{FSM}	25			A
Maximum Instantaneous Forward Voltage at 1.0A at 3.0A(Note 1)	V_F	0.450	0.550	0.600	V
		0.750	0.875	0.900	
Maximum Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$	I_R	1.0 10.0			mA
Typical Junction Capacitance (Note 2)	C_j	110			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50			$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	-65---+150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65---+150			$^\circ\text{C}$

NOTE: 1.Pulse test: 300us pulse width, 1% duty cycle.

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal Resistance Junction to Ambient.