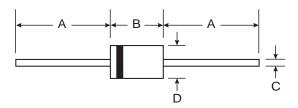


# 1N5817 - 1N5819

# 1.0A SCHOTTKY BARRIER RECTIFIER

# **Features**

- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Application
- Lead Free Finish, RoHS Compliant (Note 5)



## **Mechanical Data**

- Case: DO-41
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Tin. Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Ordering Information: See Page 2 Marking: Type Number and Date Code
- Weight: 0.3 grams (approximate)

DO-41 Plastic				
Dim	Min Max			
Α	25.40	_		
В	4.06	5.21		
С	0.71	0.864		
D	2.00	2.72		
All Dimensions in mm				

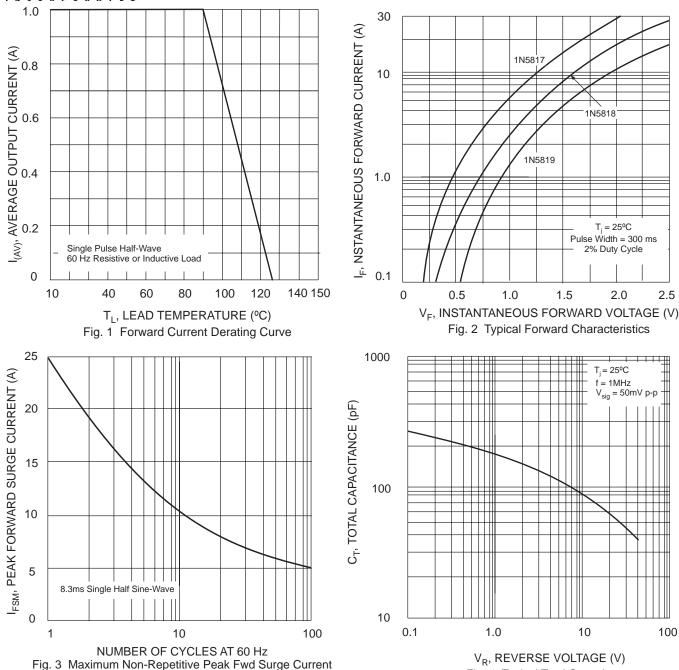
#### **Maximum Ratings and Electrical Characteristics** @ $T_A = 25$ °C unless otherwise specified

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

Characteristic	Symbol	1N5817	1N5818	1N5819	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	20	30	40	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	V
Average Rectified Output Current (Note 1)	Io		1.0		А
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>		25		А
Forward Voltage (Note 2)	V <sub>FM</sub>	0.450 0.750	0.550 0.875	0.60 0.90	٧
$\begin{array}{lll} \mbox{Peak Reverse Leakage Current} & \mbox{@ } \mbox{T}_{\mbox{A}} = 25^{\circ}\mbox{C} \\ \mbox{at Rated DC Blocking Voltage (Note 2)} & \mbox{@ } \mbox{T}_{\mbox{A}} = 100^{\circ}\mbox{C} \end{array}$		1.0 10		•	mA
Typical Total Capacitance (Note 3)		110			pF
Typical Thermal Resistance Junction to Lead (Note 4)		15			°C/W
Typical Thermal Resistance Junction to Ambient		50			
Operating and Storage Temperature Range		-65 to +125			°C

- 1. Measured at ambient temperature at a distance of 9.5mm from the case.
- 2. Short duration test pulse used to minimize self-heating effect.
- 3. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 4. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.375" (9.5mm) lead length with 1.5 x 1.5" (38 x 38mm)
- 5. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.





# Ordering Information (Note 6)

Device	Packaging	Shipping	
1N5817-B	DO-41	1K/Bulk	
1N5817-T	DO-41	5K/Tape & Reel, 13-inch	
1N5818-B	DO-41	1K/Bulk	
1N5818-T	DO-41	5K/Tape & Reel, 13-inch	
1N5819-B	DO-41	1K/Bulk	
1N5819-T	DO-41	5K/Tape & Reel, 13-inch	

Fig. 4 Typical Total Capacitance

Notes: 6. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf



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