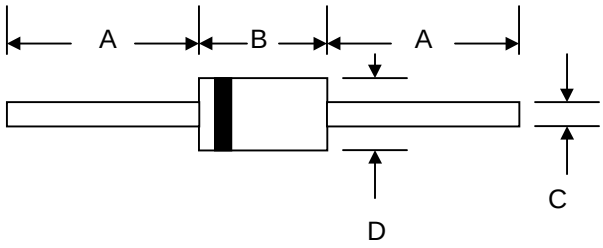
1N5817 – 1N5819

1.0A SCHOTTKY BARRIER RECTIFIER

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

DO-41		
Dim	**Min**	**Max**
A	25.4	—
B	4.06	5.21
C	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_{RRM} V_{RWM} V_R	20	30	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	V
Average Rectified Output Current (Note 1) @T_L = 90°C	I_O	1.0			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25			A
Forward Voltage @I_F = 1.0A @I_F = 3.0A	V_{FM}	0.450 0.750	0.550 0.875	0.60 0.90	V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 100°C	I_{RM}	1.0 10			mA
Typical Junction Capacitance (Note 2)	C_j	110			pF
Typical Thermal Resistance Junction to Lead (Note 1)	$R_{\theta JL}$	60			K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150			°C

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

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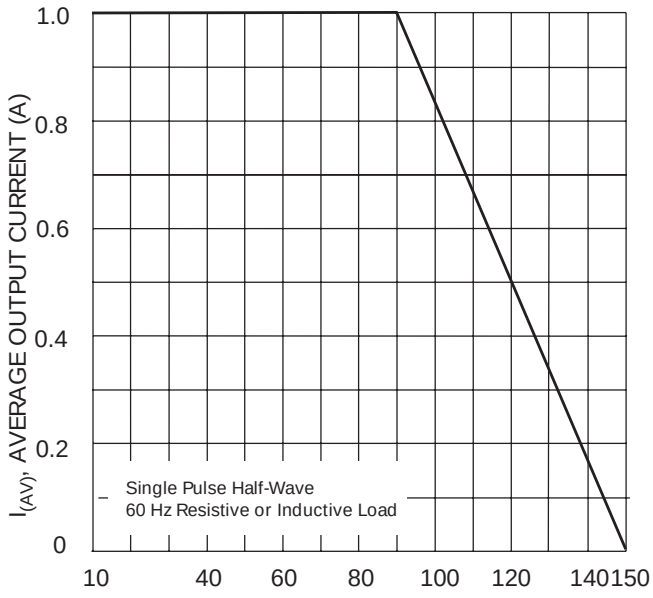

Fig. 1 Forward Current Derating Curve

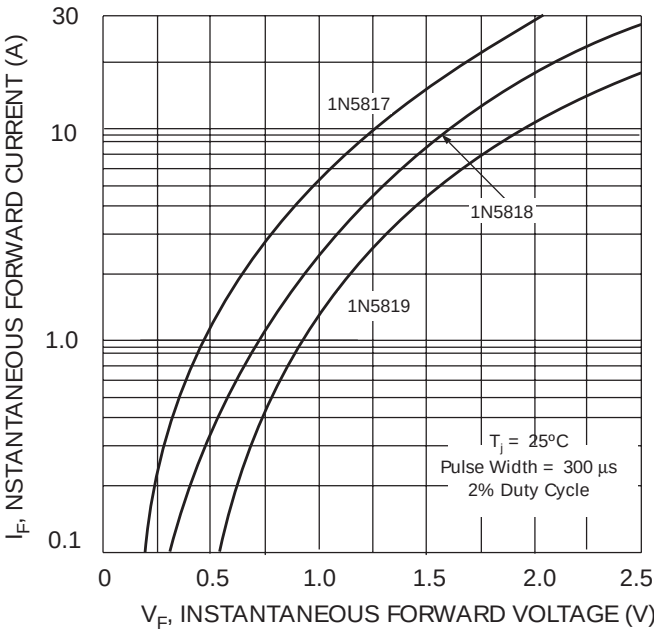

Fig. 2 Typical Forward Characteristics

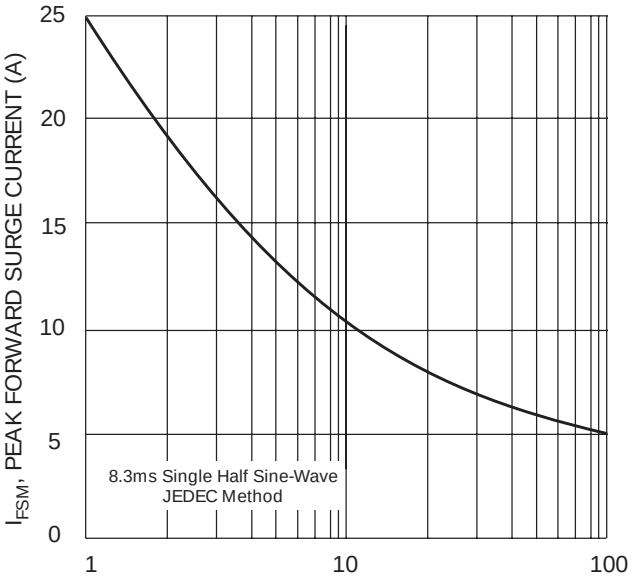

Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

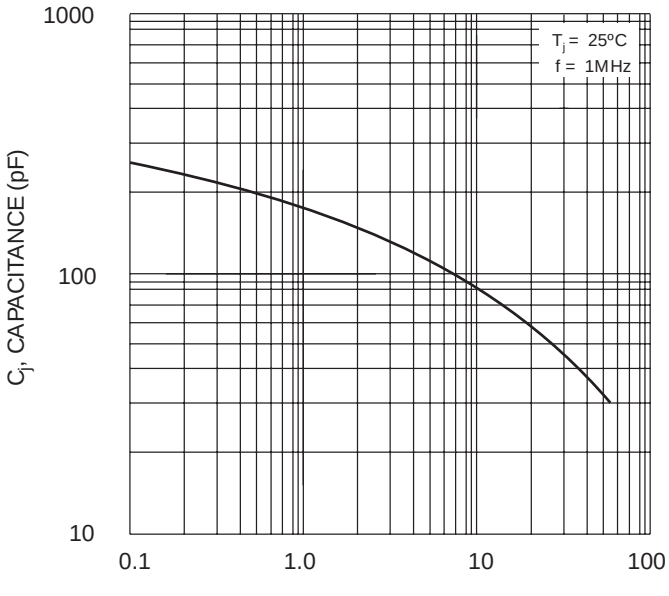

Fig. 4 Typical Junction Capacitance

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