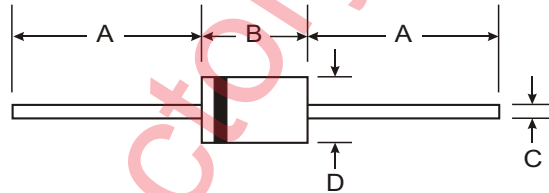


Features

- Schottky Barrier Chip
- 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
- Plastic Material: UL Flammability Classification Rating 94V-0



DO-41 Plastic		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.3 grams (approx)
- Mounting Position: Any
- Marking: Type Number

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	V _{RRM}				V
Working Peak Reverse Voltage	V _{RWM}	20	30	40	V
DC Blocking Voltage	V _R				V
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	V
Average Rectified Output Current (Note 1)	I _O		1.0		A
					@ T _L = 90°C
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}		25		A
Forward Voltage (Note 2)	V _{FM}	0.450 0.750	0.550 0.875	0.60 0.90	V
					@ I _F = 1.0A @ I _F = 3.0A
Peak Reverse Leakage Current at Rated DC Blocking Voltage (Note 2)	I _{RM}		1.0 10		mA
					@ T _A = 25°C @ T _A = 100°C
Typical Total Capacitance (Note 3)	C _T		110		pF
Typical Thermal Resistance Junction to Lead (Note 4)	R _{θJL}		15		°C/W
Typical Thermal Resistance Junction to Ambient	R _{θJA}		50		°C/W
Operating and Storage Temperature Range	T _j , T _{STG}		-65 to +125		°C

- Notes:
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) copper pads.

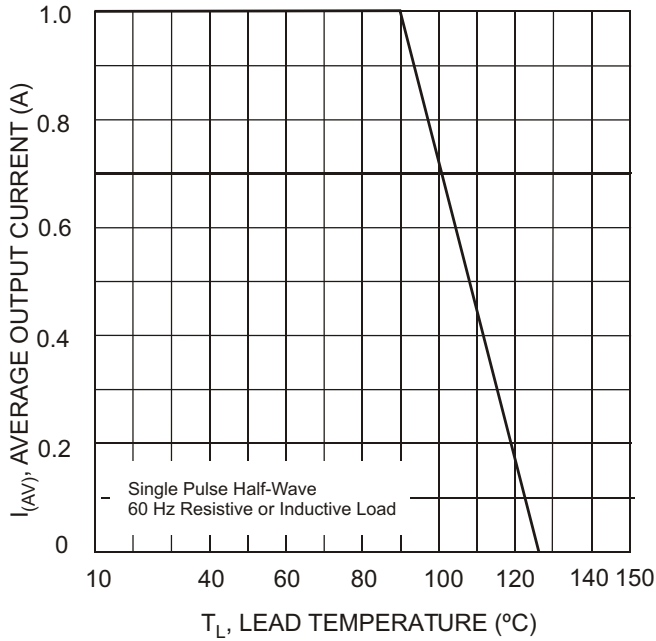


Fig. 1 Forward Current Derating Curve

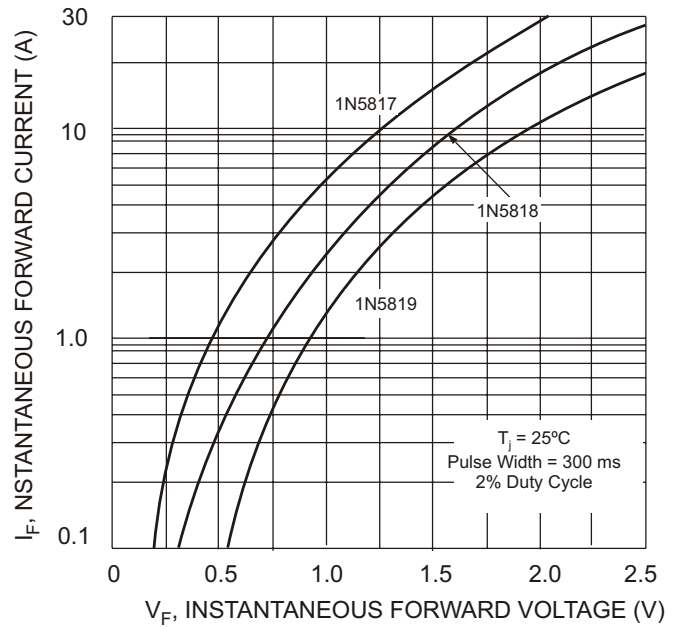


Fig. 2 Typical Forward Characteristics

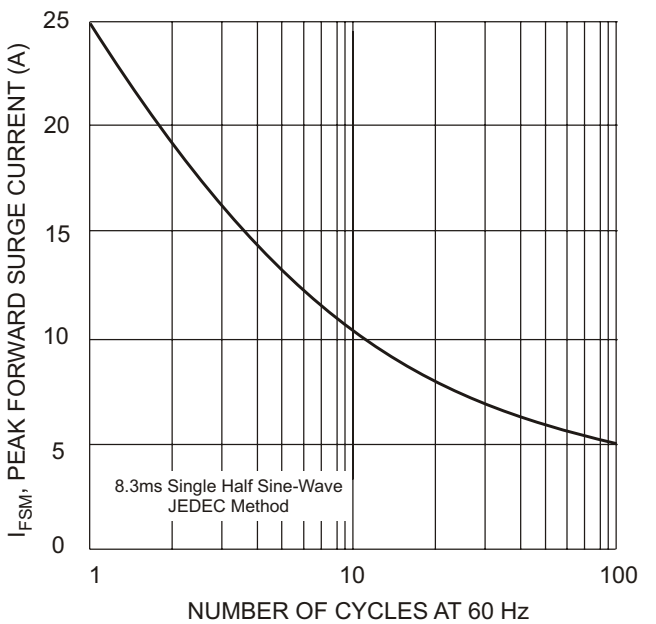


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

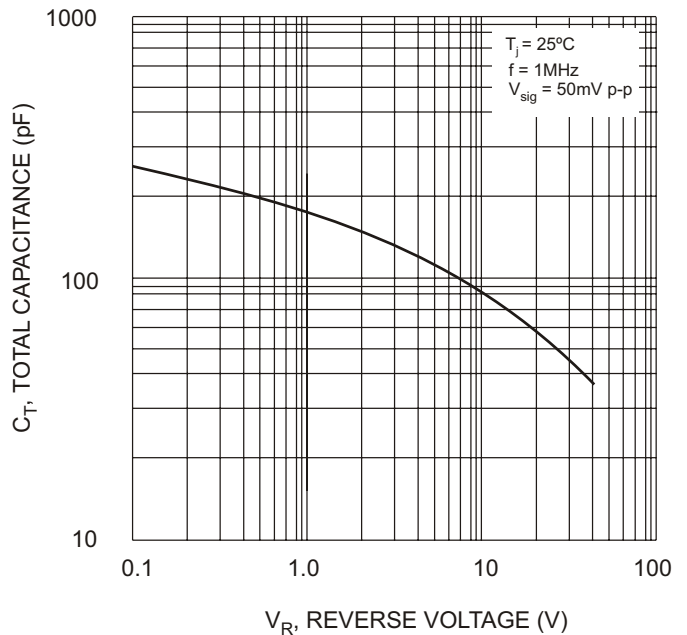


Fig. 4 Typical Total Capacitance