

## Maximum Ratings and Electrical Characteristics (@T<sub>A</sub> = +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 <sub>RRM</sub>					
Working Peak Reverse Voltage	V <sub>RWM</sub>	20	30	40	V	
DC Blocking Voltage	V <sub>R</sub>					
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	V	
Average Rectified Output Current (Note 4) @ T <sub>L</sub> = +90°C	I <sub>O</sub>	1.0			A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	25			A	
Forward Voltage (Note 5)	V <sub>FM</sub>	@ I <sub>F</sub> = 1.0A	0.450	0.550	0.60	V
		@ I <sub>F</sub> = 3.0A	0.750	0.875	0.90	
Peak Reverse Leakage Current at Rated DC Blocking Voltage (Note 5)	I <sub>RM</sub>	@ T <sub>A</sub> = +25°C	1.0			mA
		@ T <sub>A</sub> = +100°C	10			
Typical Total Capacitance (Note 6)	C <sub>T</sub>	110			pF	
Typical Thermal Resistance Junction to Lead (Note 7)	R <sub>θJL</sub>	15			°C/W	
Typical Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	50				
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +125			°C	

- Notes: 4. Measured at ambient temperature at a distance of 9.5mm from the case.  
5. Short duration test pulse used to minimize self-heating effect.  
6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
7. 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.

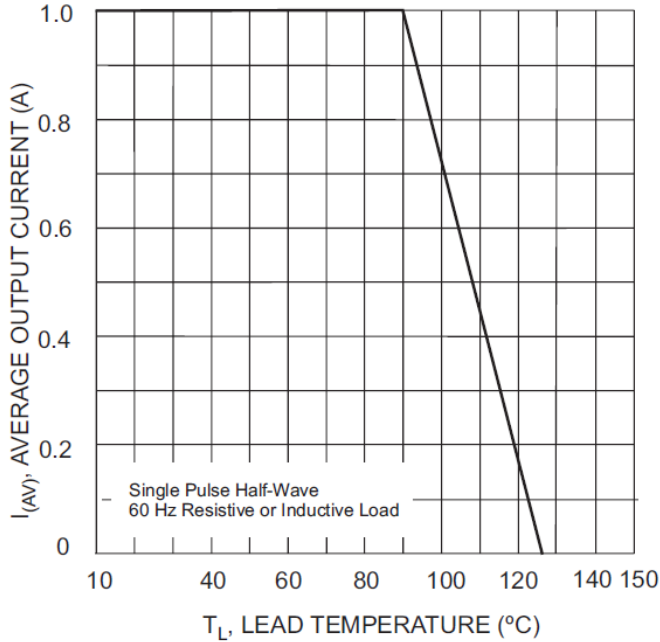


Fig. 1 Forward Current Derating Curve

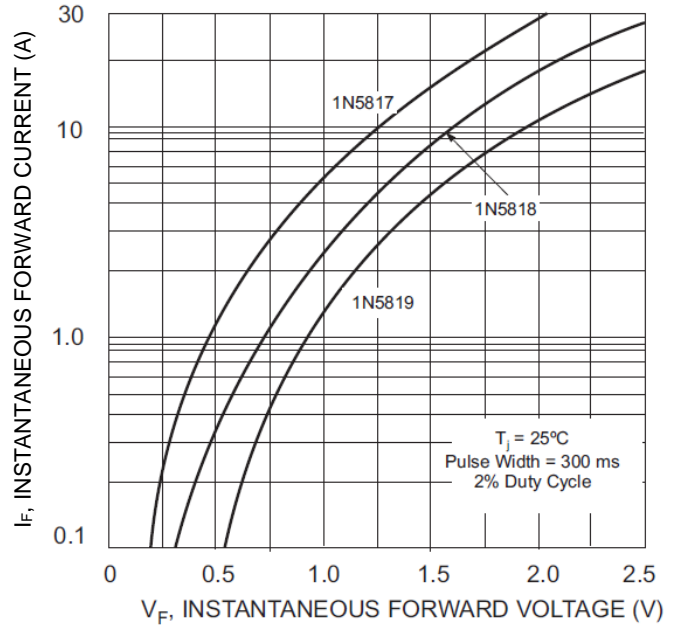


Fig. 2 Typical Forward Characteristics

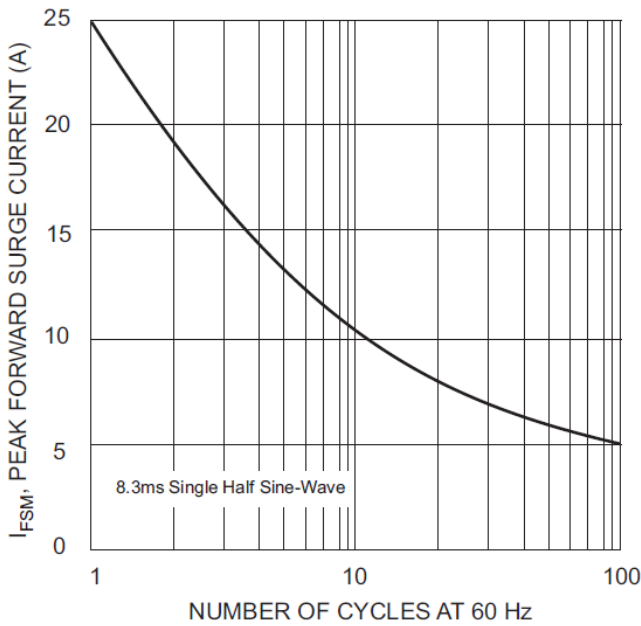


Fig. 3 Maximum Non-Repetitive Peak Fwd Surge Current

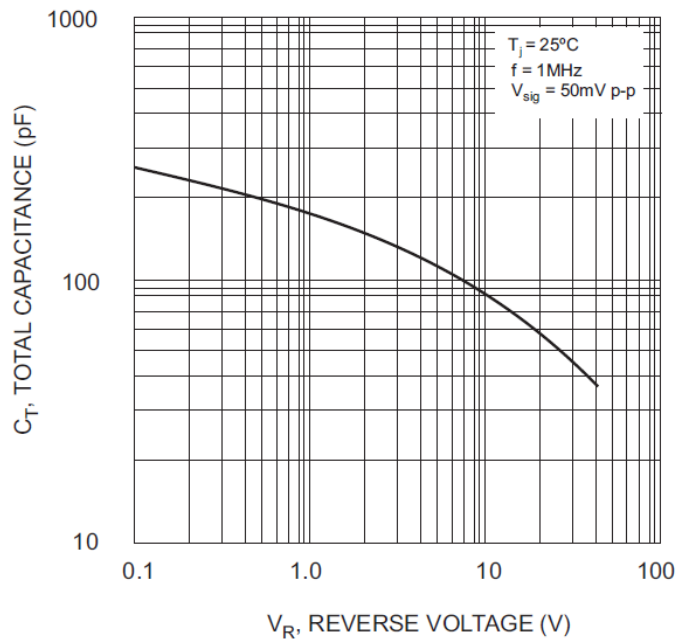
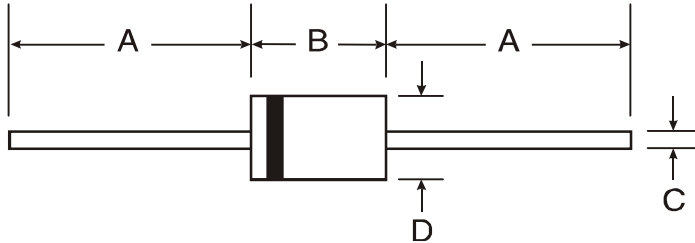


Fig. 4 Typical Total Capacitance

## Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

### DO-41 (Plastic)



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		

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