

1N5810 Series

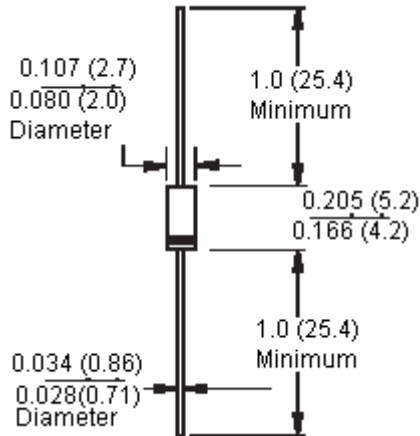


Power Diodes - Schottky

1A Axial



DO-41



Dimensions : Inches (Millimetres)

Features:

- Low forward voltage drop .
- High current capability.
- High reliability.
- High surge current capability.

Mechanical Data:

- Cases : Moulded plastic DO-41.
Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed.
Polarity : Colour band denotes cathode end.
High temperature soldering guaranteed : 260°C/10 seconds/0.375", (9.5mm) lead lengths at 5lbs., (2.3kg) tension.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	1N5817	1N5818	1N5819	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	
Maximum DC blocking voltage	V_{DC}	20	30	40	
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_L = 90^\circ\text{C}$	$I_{(AV)}$	1.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	25			
Maximum Instantaneous forward voltage at 1.0A	V_F	0.45	0.550	0.600	V
Maximum Instantaneous forward voltage at 3.0A		0.750	0.875	0.900	V
Maximum DC reverse current at $T_A = 25^\circ\text{C}$ at rated DC blocking voltage at $T_A = 100^\circ\text{C}$	I_R	1.0 10			mA
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	100 45			$^\circ\text{C/W}$
Typical junction capacitance (Note 2)	C_J	55			pF
Operating temperature range	T_J	-65 to + 125			$^\circ\text{C}$
Storage temperature range	T_{STG}				

Notes:

1. Mount on Cu-Pad Size 5mm x 5mm on PCB.
2. Measured at 1MHz and applied reverse voltage of 4.0V dc.



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Ratings and Characteristic Curves

Figure 1 Maximum Forward Current Derating Curve

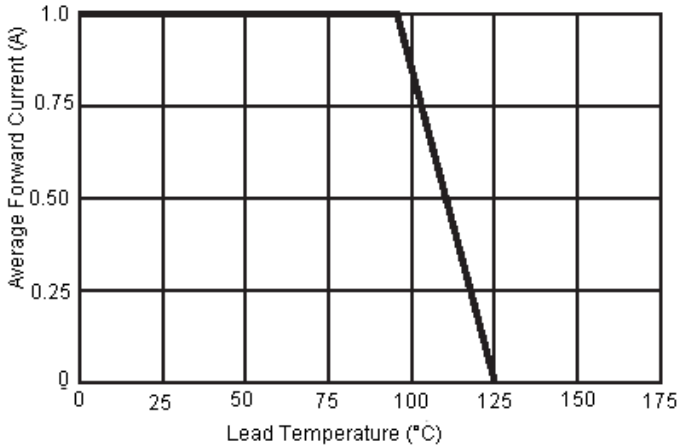


Figure 2 Typical Junction Capacitance

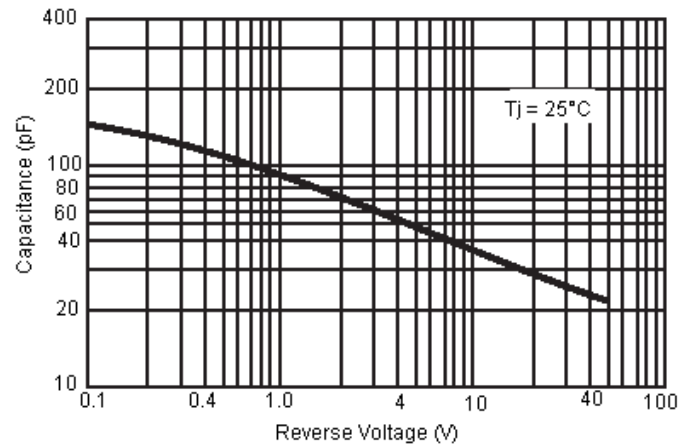


Figure 3 Typical Forward Characteristics

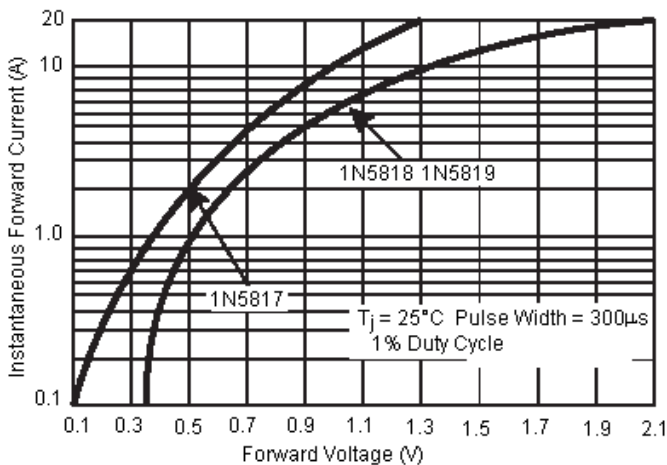
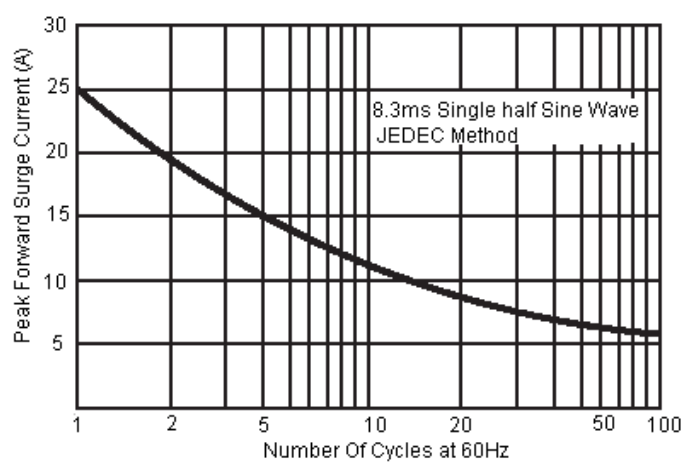


Figure 4 Maximum Non-Repetitive Forward Surge Current



Specifications

I_F (av) maximum (A)	V_{RRM} maximum (V)	V_F (V) at $I_F = 1A$	I_{FSM} (A)	Length	Diameter	Package	Part Number
1	20	0.45	25	5.2	2.7	DO-41	1N5817
	30	0.55					1N5818
	40	0.87					1N5819

Dimensions : Millimetres



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Notes:

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