

Power Diodes



Schottky

1A Axial

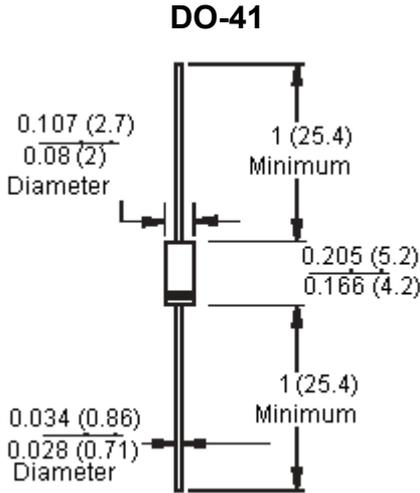


Features:

- 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	: 260°C / 10 seconds / 0.375 inches, (9.5 mm) lead
Soldering Guaranteed	: lengths at 5 lbs., (2.3 kg) tension



Dimensions : Inches (Millimetres)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, 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 Inches (9.5 mm) Lead Length at $T_L = 90^\circ\text{C}$	$I_{(AV)}$	1			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	25			
Maximum Instantaneous Forward Voltage at 1 A	V_F	0.45	0.55	0.6	V
Maximum Instantaneous Forward Voltage at 3 A		0.75	0.875	0.9	
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 10			mA
Typical Thermal Resistance (Note 1)	$R\theta_{JA}$ $R\theta_{JC}$	100 45			$^\circ\text{C} / \text{W}$
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 5 × 5 mm on PCB
2. Measured at 1 MHz and applied reverse voltage of 4 V dc



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Ratings and Characteristic Curves

Figure 1 Maximum Forward Current Derating Curve

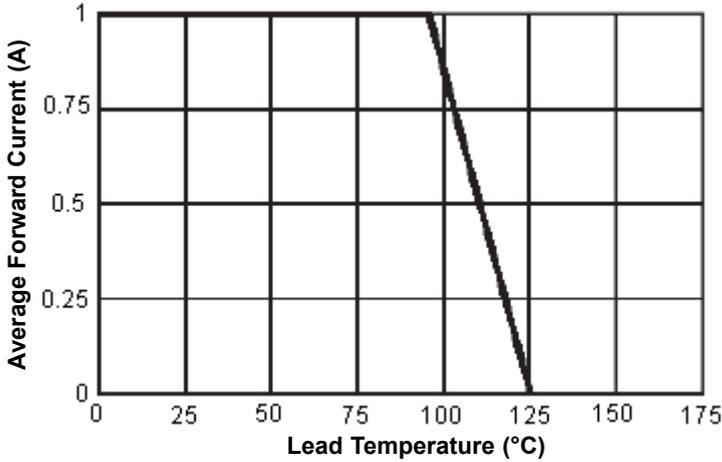


Figure 2 Typical Junction Capacitance

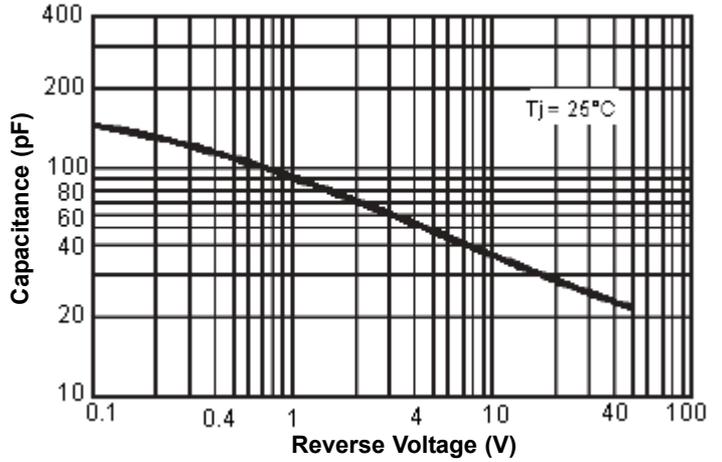


Figure 3 Typical Forward Characteristics

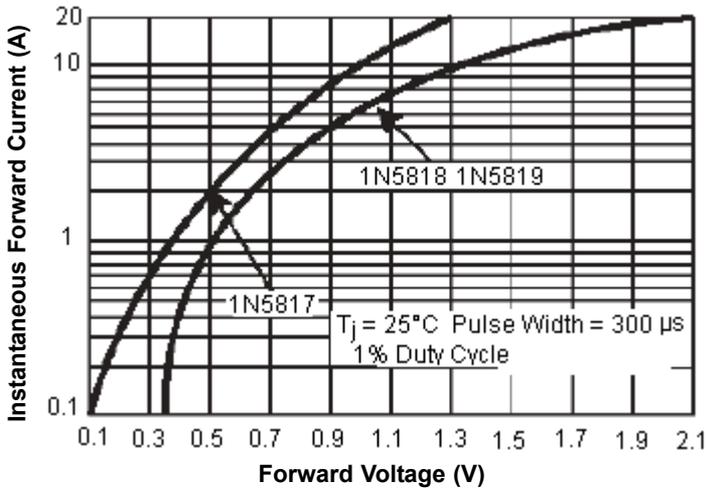
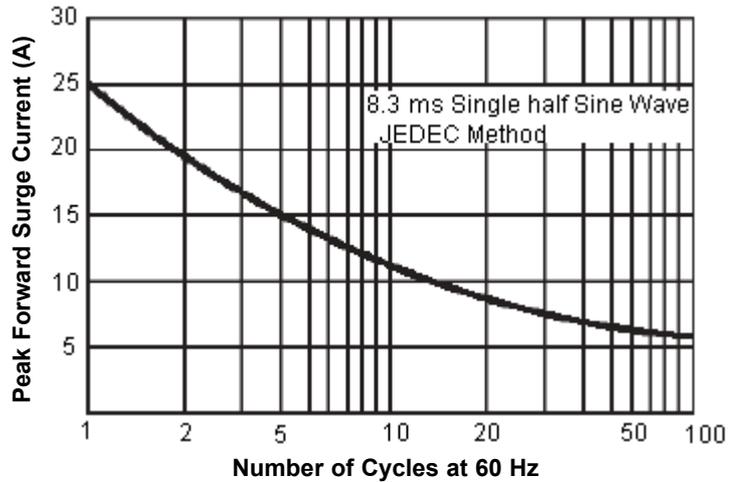


Figure 4 Maximum Non-Repetitive Forward Surge Current



Specification Table

I_F (av) Maximum (A)	V_{RRM} Maximum (V)	V_F (V) at $I_F = 1$ A	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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