

3A Axial

Features:

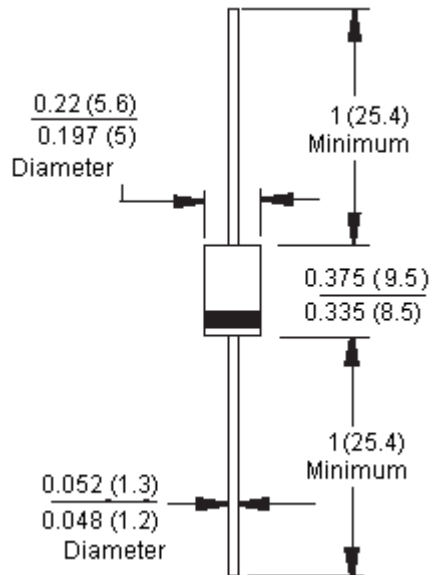
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Mechanical Data:

Cases	: Moulded plastic DO-201AD
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 inches, (9.5 mm) lead lengths at 5 lbs, (2.3 kg) tension



DO-201AD



Dimensions : 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	1N5820	1N5821	1N5822	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 $T_L = 90^\circ\text{C}$	$I_{(AV)}$	3			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	80			
Maximum Instantaneous Forward Voltage at 3 A	V_F	0.475	0.5	0.525	V
Maximum Instantaneous Forward Voltage at 9 A		0.85	0.9	0.95	
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	2 20			mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	40			$^\circ\text{C} / \text{W}$
Typical Junction Capacitance (Note 2)	C_J	200			pF
Operating Temperature Range	T_j	-65 to +125			$^\circ\text{C}$
Storage Temperature Range	T_{stg}				

- Notes :**
1. Mount on Cu-pad size 16 mm × 16 mm on PCB
 2. Measured at 1 MHz and applied reverse voltage of 4 V dc

Ratings and Characteristic Curves

Figure 1 Maximum Forward Current Derating Curve

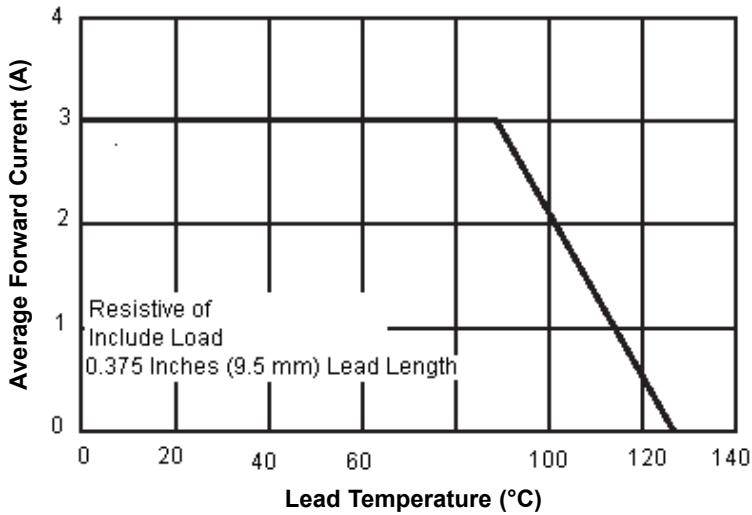


Figure 2 Typical Reverse Characteristics

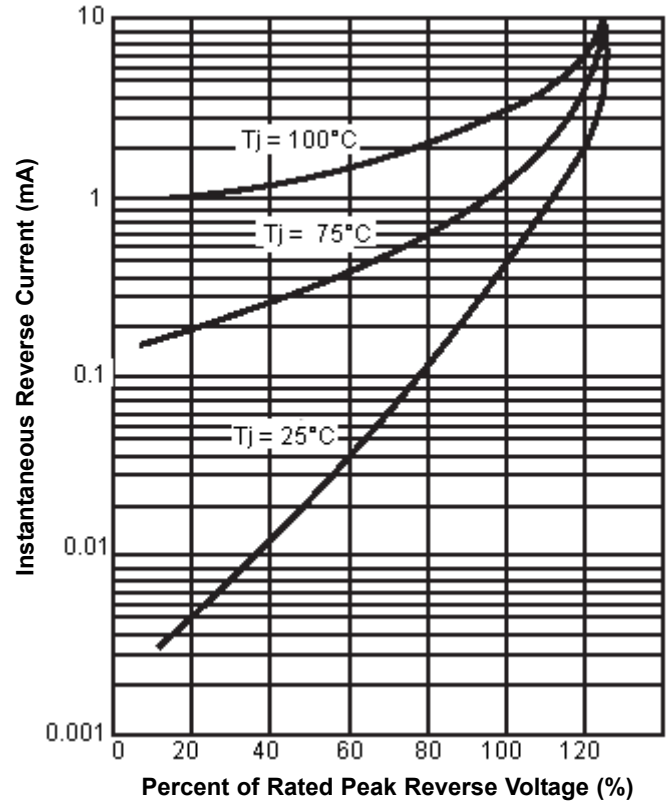


Figure 3 Maximum Non-Repetitive Forward Surge Current

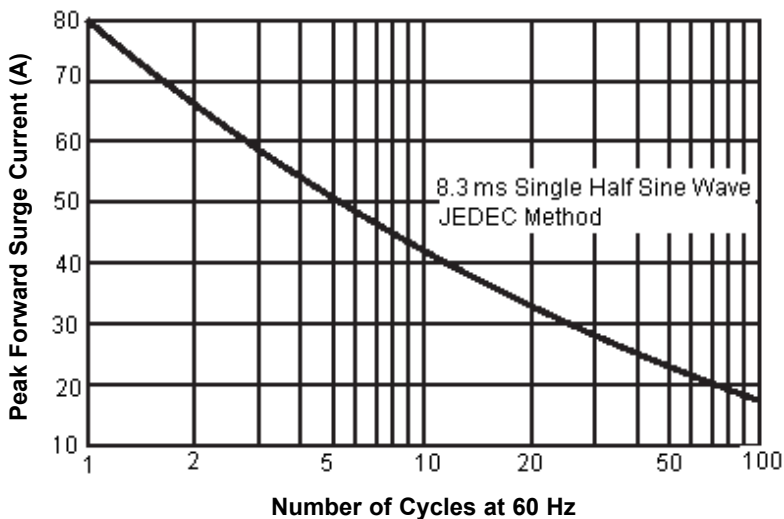


Figure 4 Typical Forward Characteristics

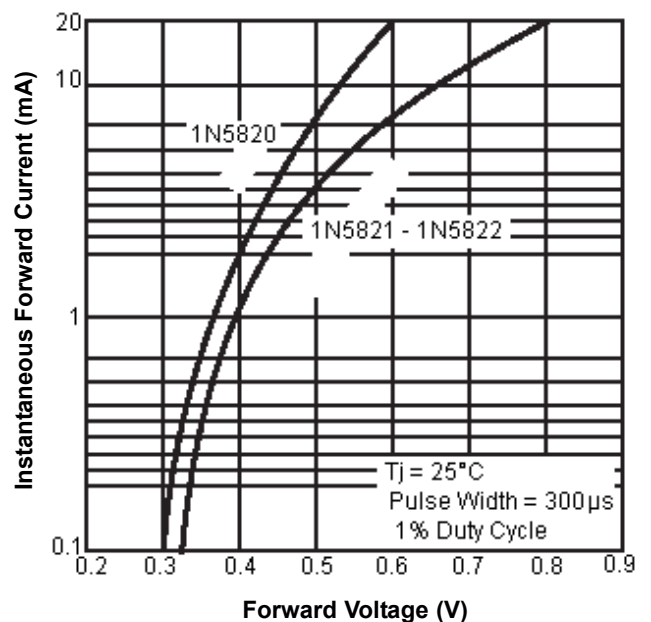
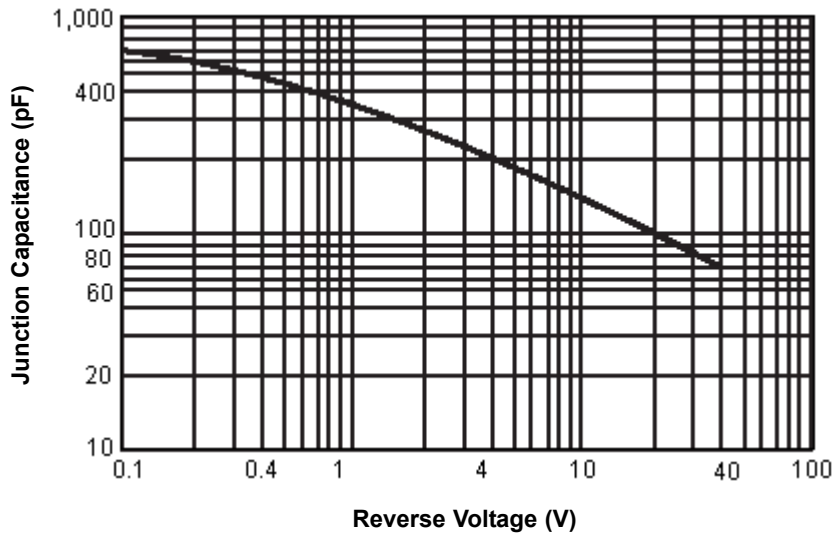


Figure 5 Typical Junction Capacitance



Specification Table

I_F (av) Maximum (A)	V_{RRM} Maximum (v)	V_F (V) at $I_F = 3$ A	I_{FSM} (A)	Length	Diameter	Package	Part Number
3	20	0.47	80	9.5	5.6	DO-201AD	1N5820
	30	0.5					1N5821
	40	0.52					1N5822

Dimensions : Millimetres

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