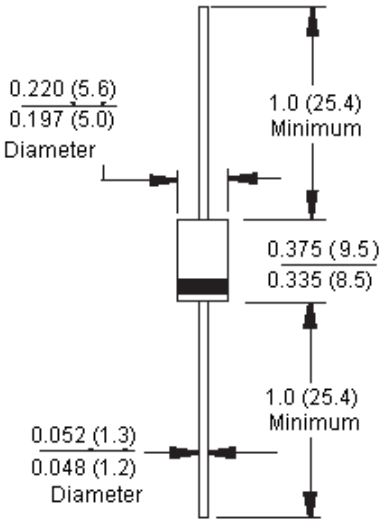
1N5820 Series

Power Diodes - Schottky

3A Axial

DO-201AD



Dimensions : Inches (Millimetres)

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", (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	1N5820	1N5821	1N5822	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current 0.375" (9.5mm) Lead Length at T_L = 90°C	$I_{(AV)}$	3.0			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80			A
Maximum instantaneous forward voltage at 3.0A	V_F	0.475	0.500	0.525	V
Maximum instantaneous forward voltage at 9.0A	V_F	0.850	0.900	0.950	V
Maximum DC reverse current at T_A = 25°C at rated DC blocking voltage at T_A = 100°C	I_R	2.0 20			mA
Typical thermal resistance (Note 1)	$R\theta_{JA}$	40			°C/W
Typical junction capacitance (Note 2)	C_J	200			pF
Operating temperature range	T_j	-65 to +125			°C
Storage temperature range	T_{stg}	-65 to +125			°C

Notes:

1. Mount on Cu-pad size 16mm x 16mm on PCB.
2. Measured at 1MHz and applied reverse voltage of 4.0V dc.

Ratings and Characteristic Curves

Figure 1 Maximum Forward Current Derating Curve

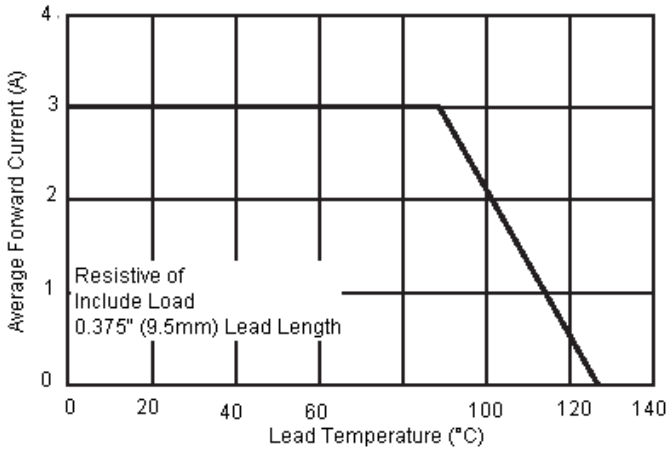


Figure 2 Typical Reverse Characteristics

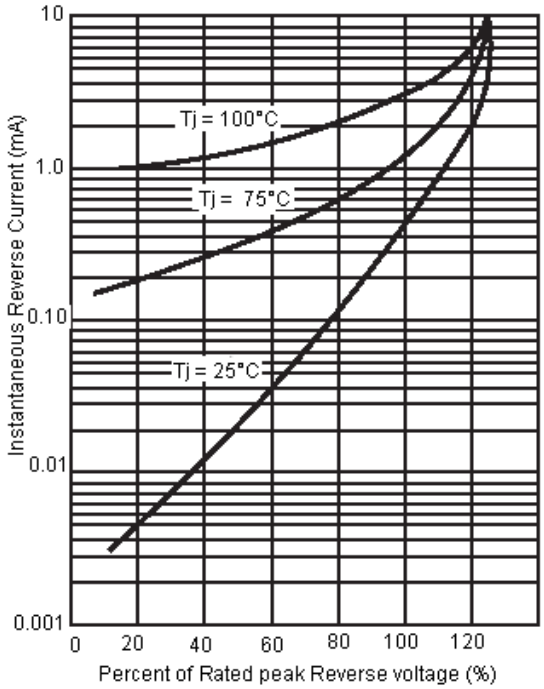


Figure 3 Maximum Non-Repetitive Forward Surge Current

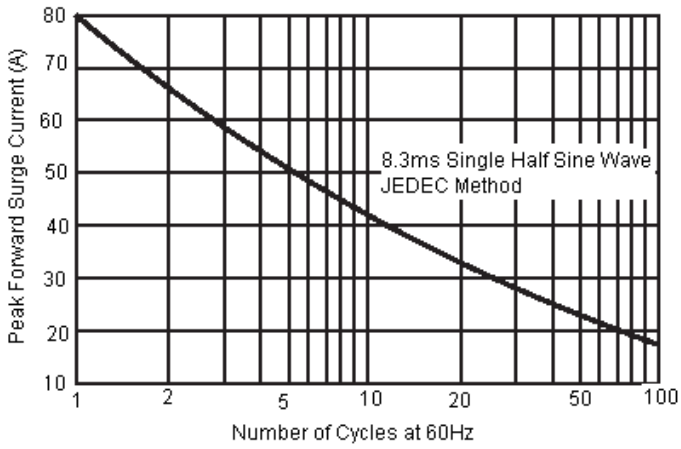


Figure 4 Typical Forward Characteristics

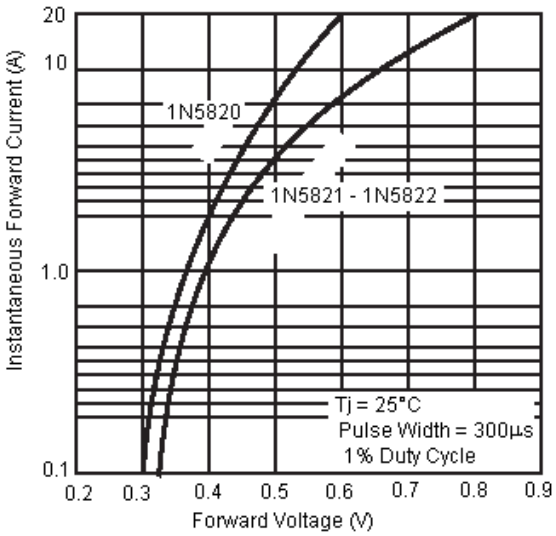
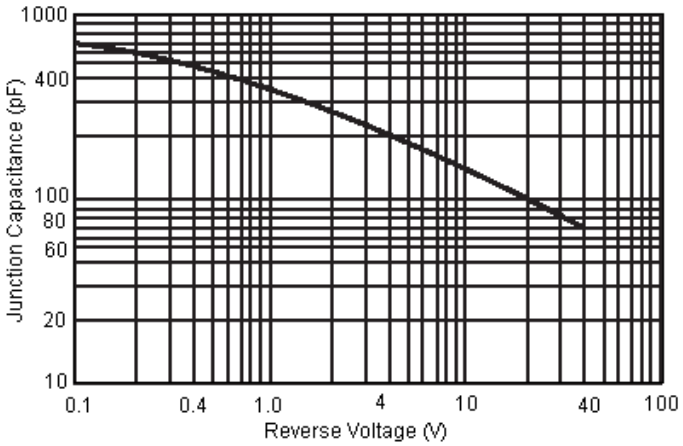


Figure 5 Typical Junction Capacitance



Specifications

$I_{F\ (av)}$ maximum (A)	V_{RRM} maximum (v)	V_F (V) at I_F = 3A	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

Notes:

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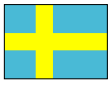

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