

# Schottky Rectifier



## Features

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

## Mechanical Data:

Case : Moulded plastic DO-201AD  
Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed  
Polarity : Colour band denotes cathode end  
High Temperatures  
Soldering Guaranteed : 260°C / 10 seconds / 0.375 inches (9.5mm) lead lengths at 5 lbs., (2.3 kg) tension

## 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%

Parameter	Symbol	1N5820+	1N5821+	1N5822+	Unit
Maximum Repetitive 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 $T_L = 90^\circ C$	$I_{(AV)}$	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 3A	$V_F$	0.475	0.5	0.525	V
Maximum Instantaneous Forward Voltage at 9A		0.85	0.9	0.95	
Maximum DC Reverse Current at $T_A = 25^\circ C$ at Rated DC Blocking Voltage at $T_A = 100^\circ C$	$I_R$	2 20			mA
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	40			$^\circ C/W$
Typical Junction Capacitance (Note 2)	$C_J$	200			pF
Operating Temperature Range	$T_J$	-65 to + 125			$^\circ C$
Storage Temperature Range	$T_{STG}$				

### Notes:

1. Mount on Cu-Pad Size 16 × 16 mm on PCB
2. Measured at 1 MHz and applied reverse voltage of 4 V DC



# Schottky Rectifier



## Specification Table

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

## Ratings and Characteristic Curves

Figure 1 Maximum Forward Current Derating Curve

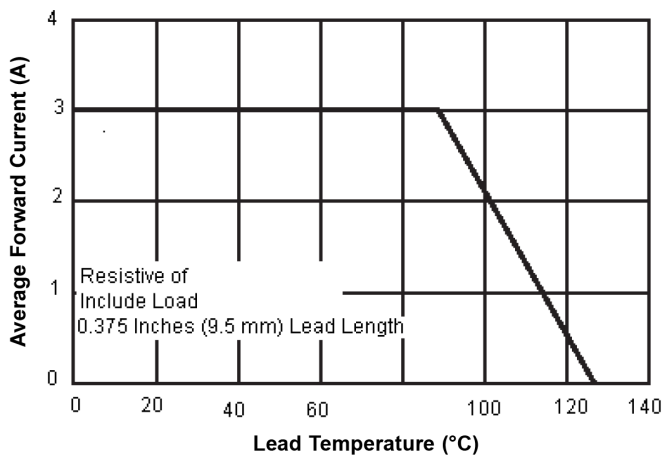


Figure 2 Typical Reverse Characteristics

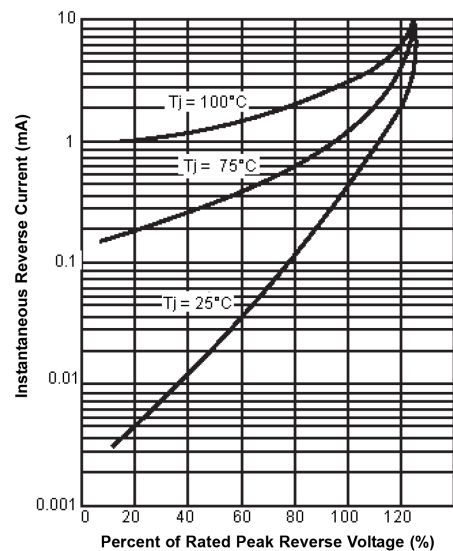


Figure 3 Maximum Non-Repetitive Forward Surge Current

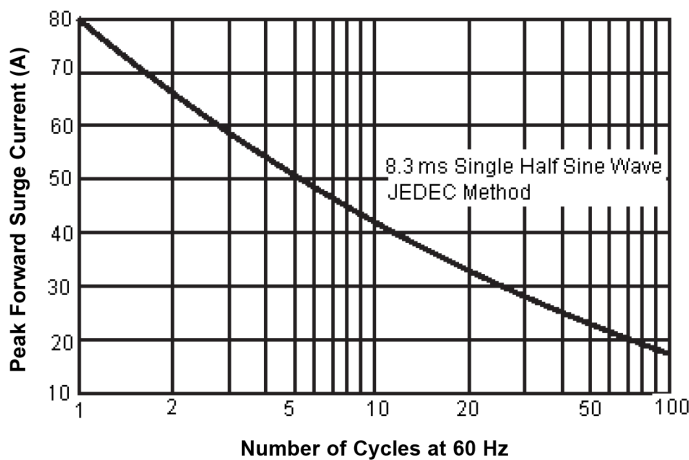


Figure 4 Typical Forward Characteristics

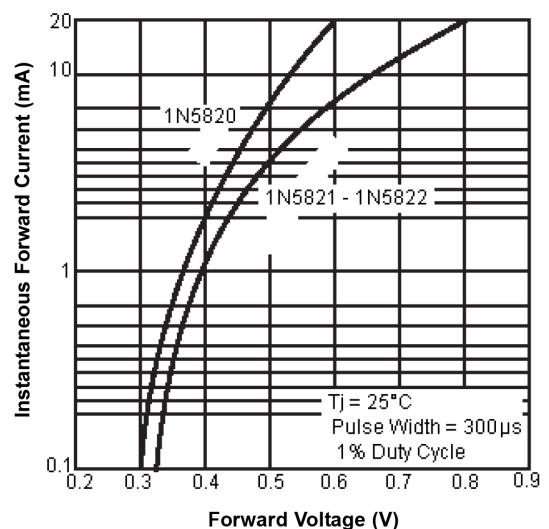
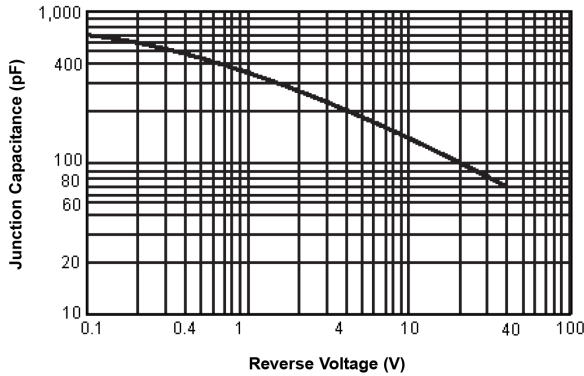
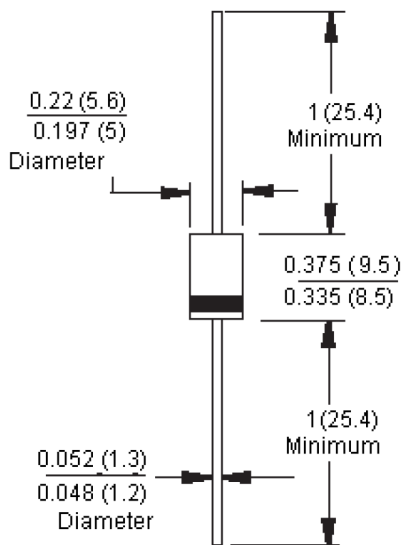


Figure 5 Typical Junction Capacitance



## Dimensions:

### DO-201AD



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Schottky Rectifier, 20V, 3A	1N5820+
Schottky Rectifier, 30V, 3A	1N5821+
Schottky Rectifier, 40V, 3A	1N5822+

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell Limited 2016.