

# 1N5820 THRU 1N5822

## SCHOTTKY BARRIER RECTIFIERS

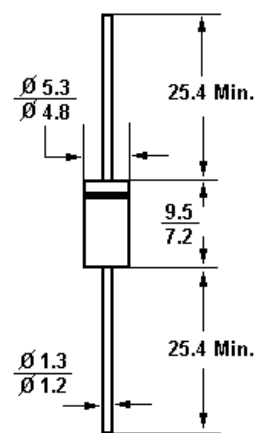
Reverse Voltage – 20 to 40 Volts

Forward Current – 3.0 Amperes

DO-201AD

### Features

- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guarding for overvoltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension.



Dimensions in mm

### Mechanical Data

- Case: DO-201AD. molded plastic body.
- Terminals: Plated axial leads, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting Position: Any.

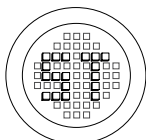
### Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	1N5820	1N5821	1N5822	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	Volts
Maximum DC blocking voltage	$V_{DC}$	20	30	40	Volts
Non-repetitive peak reverse voltage	$V_{RSM}$	24	36	48	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_L = 95^\circ\text{C}$	$I_{(AV)}$	3			Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at $T_L = 75^\circ\text{C}$	$I_{FSM}$	80			Amps
Maximum instantaneous forward voltage at 3A (Note 1)	$V_F$	0.475	0.5	0.525	Volts
Maximum instantaneous forward voltage at 9.4A (Note 1)	$V_F$	0.85	0.9	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1)	$I_R$	2 20			mA
Typical thermal resistance (Note 2)	$R_{\theta JA}$	40			°C/W
	$R_{\theta JL}$	10			
Operating junction and storage temperature range	$T_J, T_S$	-65 to +125			°C

Notes: (1) Pulse test: 300uS pulse width, 1% duty cycle.

(2) Thermal resistance from junction to lead vertical P.C.B. mounted, 0.5" (12.7mm) lead length with 2.5x2.5" (63.5 x 63.5mm) copper pads.



®

РАДИОТЕХ

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