



# 1N5820 THRU 1N5822

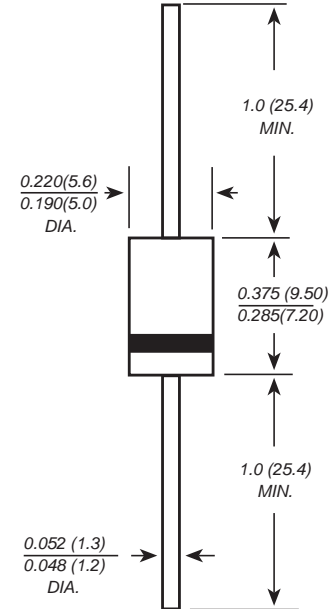
Reverse Voltage - 20 to 40 Volts Forward Current - 3.0 Ampere

## SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Guardring for overvoltage protection
- ◆ Low power loss, high efficiency
- ◆ High current capability, low forward voltage drop
- ◆ High surge capability
- ◆ 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

DO-201AD



Dimensions in inches and (millimeters)

### Mechanical Data

**Case** : JEDEC DO-201AD Molded plastic body  
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity** : Polarity symbol marking on body  
**Mounting Position** : Any  
**Weight** : 0.04 ounce, 1.1 grams

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter   | SYMBOLS         | 1N5820        | 1N5821        | 1N5822        | UNITS                     |
|---|-----------------|---------------|---------------|---------------|---------------------------|
|   |                 | MDD<br>1N5820 | MDD<br>1N5821 | MDD<br>1N5822 |                           |
| Maximum repetitive peak reverse voltage   | $V_{RMM}$       | 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<br>0.375" (9.5mm) lead length at $T_L=95^\circ\text{C}$               | $I_{(AV)}$      | 3.0           |               |               | A                         |
| Peak forward surge current<br>8.3ms single half sine-wave<br>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 DC reverse current<br>at rated DC blocking voltage<br>$T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ | $I_R$           | 0.5<br>40.0   |               |               | mA                        |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 300.0         |               |               | pF                        |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 40.0          |               |               | $^\circ\text{C}/\text{W}$ |
| Operating junction and storage temperature range  | $T_J, T_{STG}$  | -65 to +125   |               |               | $^\circ\text{C}$          |

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



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## Ratings And Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

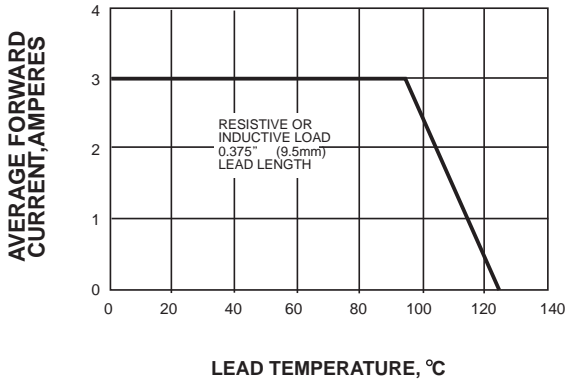


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

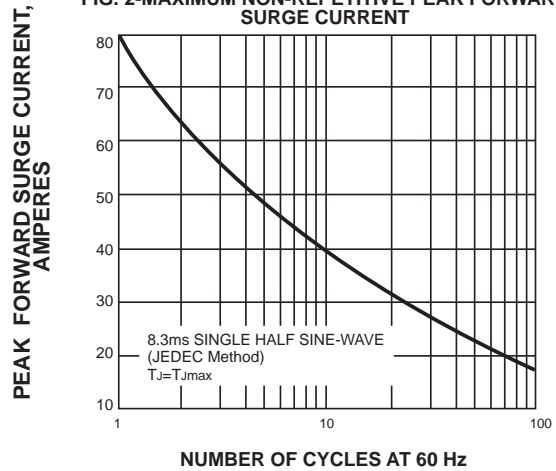


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

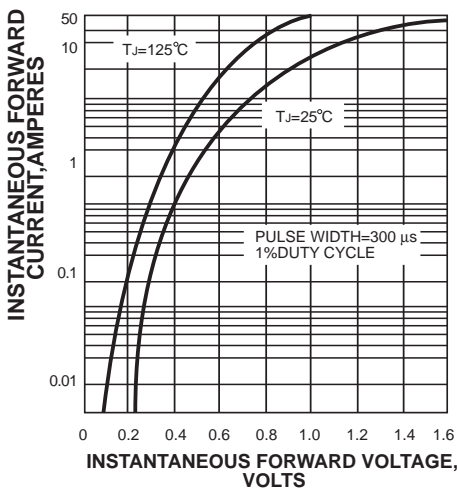


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

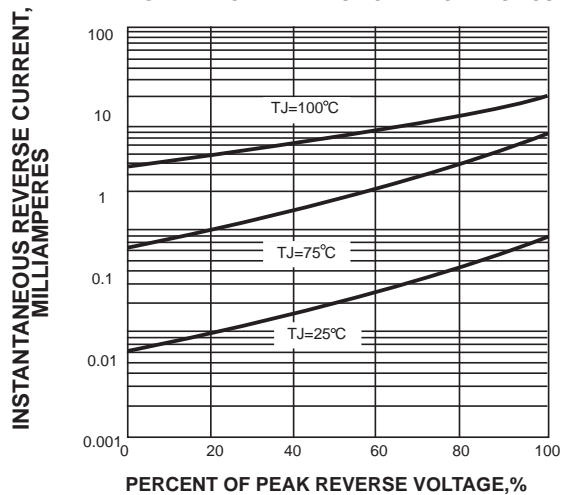


FIG. 5-TYPICAL JUNCTION CAPACITANCE

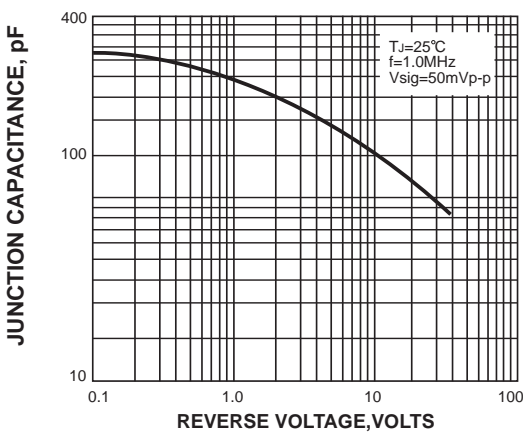
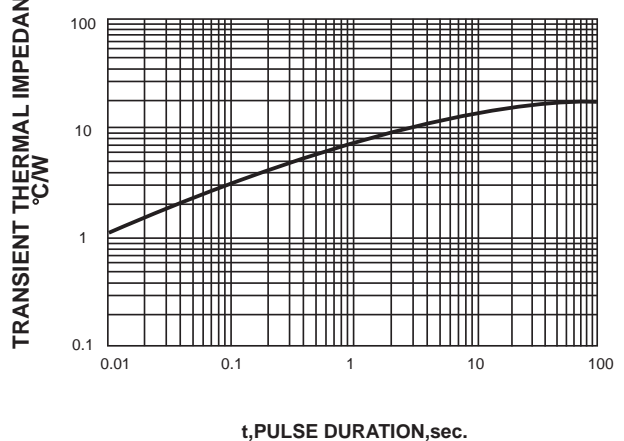


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.

单击下面可查看定价，库存，交付和生命周期等信息

[>>MDD\(辰达行\)](#)