

1N5820 THRU 1N5822

3 AMPERE SCHOTTKY BARRIER RECTIFIERS
VOLTAGE - 20 to 40 Volts CURRENT - 3.0 Amperes

FEATURES

- High surge current capability.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- High current operation 3.0 ampere at $T_L = 95^\circ\text{C}$.
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

MECHANICAL DATA

Case: Molded plastic, DO-201AD

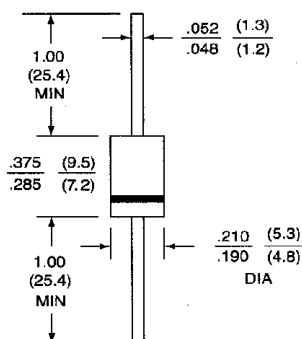
Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode

Mounting position: Any

Weight: 0.04 ounce, 1.1 grams.

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

* At $T_A = 25^\circ\text{C}$ unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

** All values except Maximum RMS Voltage are registered JEDEC parameters.

| | 1N5820 | 1N5821 | 1N5822 | UNITS |
|---|-------------|--------|--------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | V |
| Maximum Average Forward Rectified Current 3/8" Lead Length at $T_L = 95^\circ\text{C}$ | 3.0 | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) $T_L = 75^\circ\text{C}$ | 80 | | | A |
| Maximum Forward Voltage at 3.0A DC | .475 | .500 | .525 | V |
| Maximum Forward Voltage at 9.4A DC | .850 | .900 | .950 | V |
| Maximum Average DC Reverse Current | 0.5 | | | mA |
| at Peak Reverse Voltage | 20 | | | mA |
| Typical Thermal Resistance (Note 1) | 28 | | | $^\circ\text{C}/\text{W}$ |
| Typical Junction Capacitance (Note 2) | 190 | | | pF |
| Operating Temperature Range | -50 to +125 | | | $^\circ\text{C}$ |
| Storage Temperature Range | | | | |

NOTES:

1—Thermal Resistance Junction to Ambient Vertical PC Board Mounting. 1/2" Lead Length.

2—Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

**RATING AND CHARACTERISTIC CURVES
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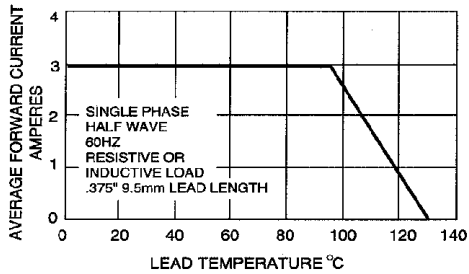


Fig. 1 - FORWARD CURRENT DERATING CURVE

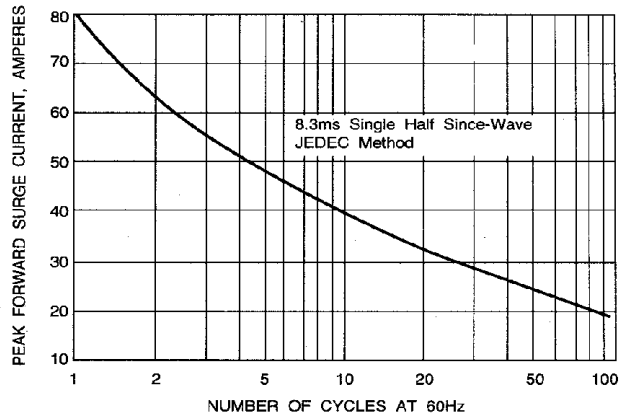


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

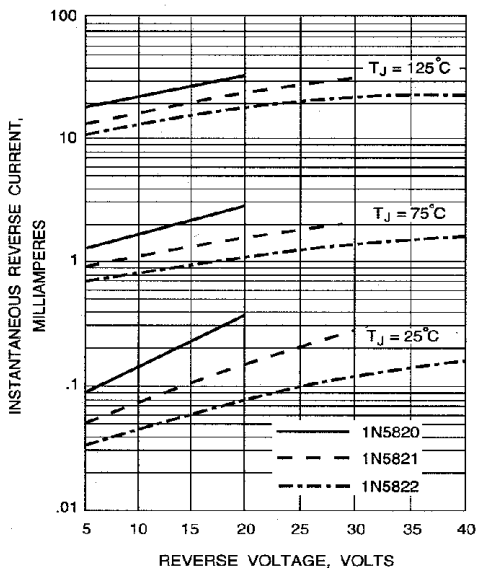


Fig. 2 - TYPICAL REVERSE CHARACTERISTICS

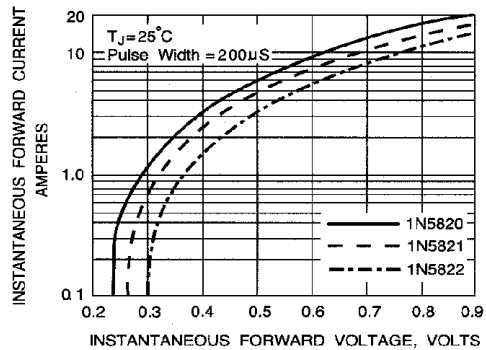


Fig. 4 - TYPICAL FORWARD CHARACTERISTICS

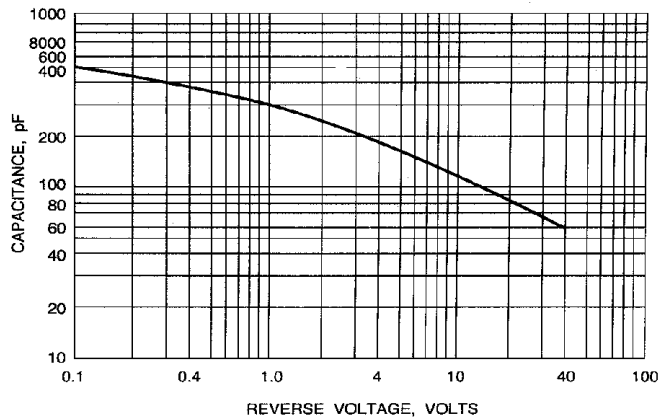


Fig. 5 - TYPICAL JUNCTION CAPACITANCE