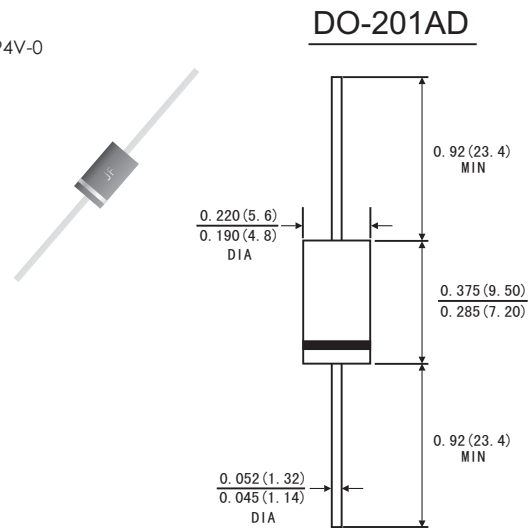


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring 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:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

MECHANICAL DATA

- Case: JEDEC 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
- Weight: 0.041ounce, 1.12 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Dimensions in inches and (millimeters)

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

| | Symbols | 1N 5820 | 1N 5821 | 1N 5822 | 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 |
| Maximum average forward rectified current | I(AV) | 3.0 | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 80.0 | | | Amps |
| Maximum instantaneous forward voltage at 3.0 A(Note 1) | V _F | 0.475 | 0.500 | 0.525 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | T _A =25°C | 0.1 | | | mA |
| | T _A =100°C | 5.0 | | | |
| Typical thermal resistance(Note 2) | R _{θJA} | 40.0 | | | °C/W |
| | R _{θJL} | 10.0 | | | |
| Operating junction temperature range | T _J | -55 to +125 | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | °C |

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle

2.Thermal resistance (from junction to ambient)Vertical P.C.B. mounted , 0.500"(12.7mm)lead length with 2.5X2.5(63.5X63.5mm)copper pads

RATINGS AND CHARACTERISTIC CURVES 1N5820 THRU 1N5822

FIG.1-FORWARD CURRENT DERATING CURVE

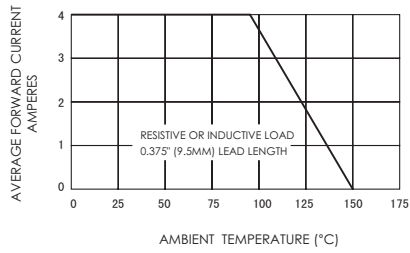


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

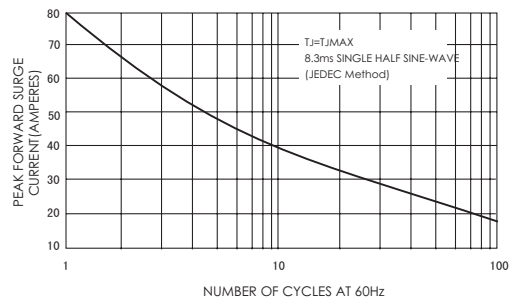


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

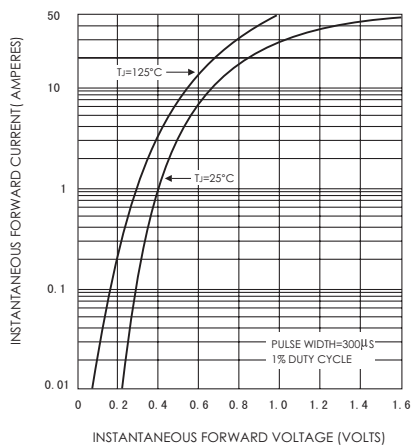


FIG.4-TYPICAL REVERSE CHARACTERISTICS

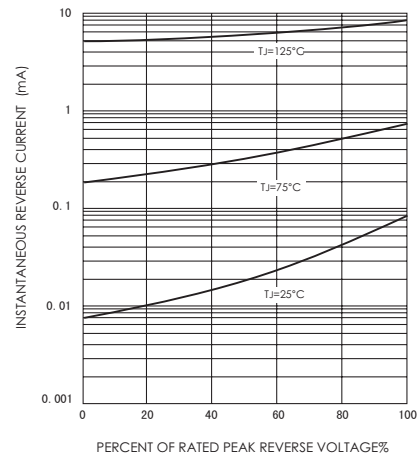


FIG.5-TYPICAL JUNCTION CAPACITANCE

