

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 30 to 40 Volts CURRENT 3.0 Amperes

FEATURES

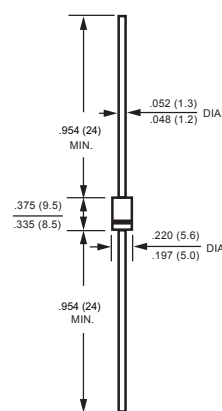
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any



DO-201AD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

| RATINGS | SYMBOL | 1N5821 | 1N5822 | UNITS |
|--|------------------|--------------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 30 | 40 | Volts |
| Maximum RMS Voltage | V _{RMS} | 21 | 28 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 30 | 40 | Volts |
| Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T _L =95°C | I _O | 3.0 | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 80 | | Amps |
| Typical Current Squared Time | I ² T | 26.5 | | A ² S |
| Typical Thermal Resistance (Note 3) | R _{θJA} | 40 | | °C/W |
| | R _{θJL} | 10 | | |
| Typical Junction Capacitance (Note 1) | C _J | 250 | | pF |
| Operating Temperature Range | T _J | -55 to + 150 | | °C |
| Storage Temperature Range | T _{STG} | -55 to + 150 | | °C |

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | 1N5821 | 1N5822 | UNITS |
|--|-------------------------|--------|--------|-------|
| Maximum Instantaneous Forward Voltage at 3.0A DC | V _F | .500 | .525 | Volts |
| Maximum Instantaneous Forward Voltage at 9.4A DC | V _F | .900 | .950 | Volts |
| Maximum Average Reverse Current at Rated DC Blocking Voltage (Note 4) | @T _A = 25°C | 20 | | uAmps |
| | @T _A = 150°C | 20 | | mAmps |

- NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
2. " ROHS compliant".
3. Thermal Resistance : At 9.5mm lead lengths, PCB mounted.
4. Measured at Pulse Width 300mS,Duty 2%.

RATING AND CHARACTERISTICS CURVES (1N5821 THRU 1N5822)

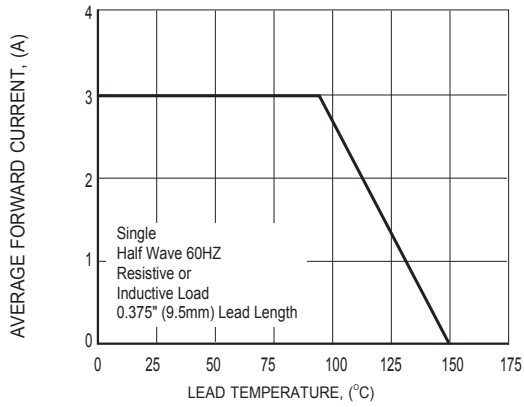


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

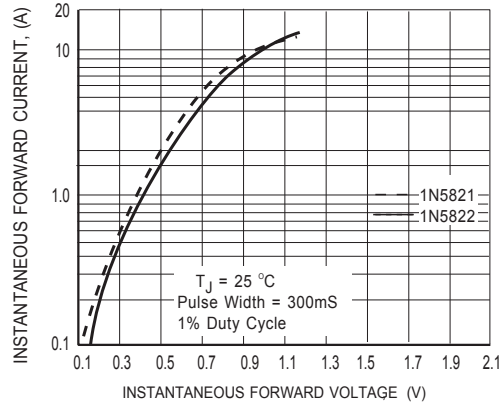


FIG.2 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

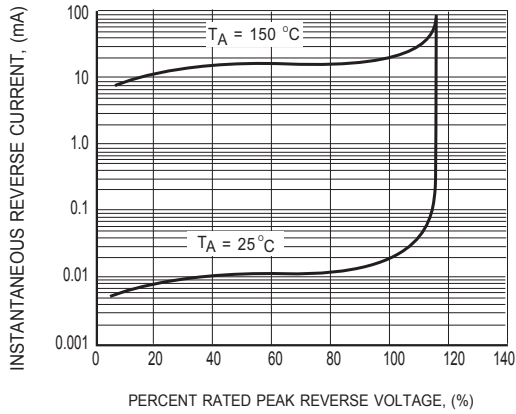


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

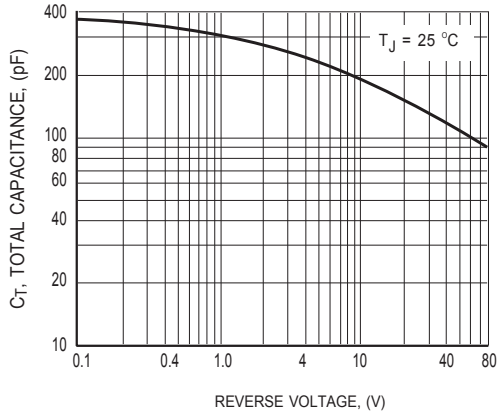


FIG.4 TYPICAL JUNCTION CAPACITANCE

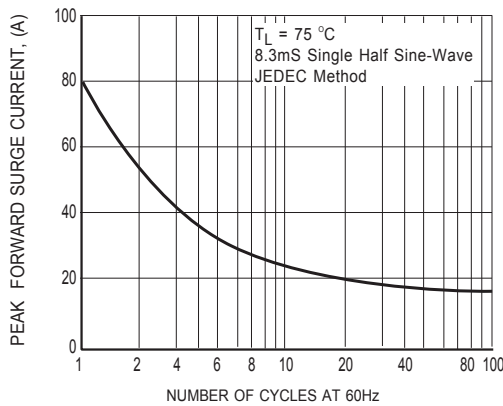
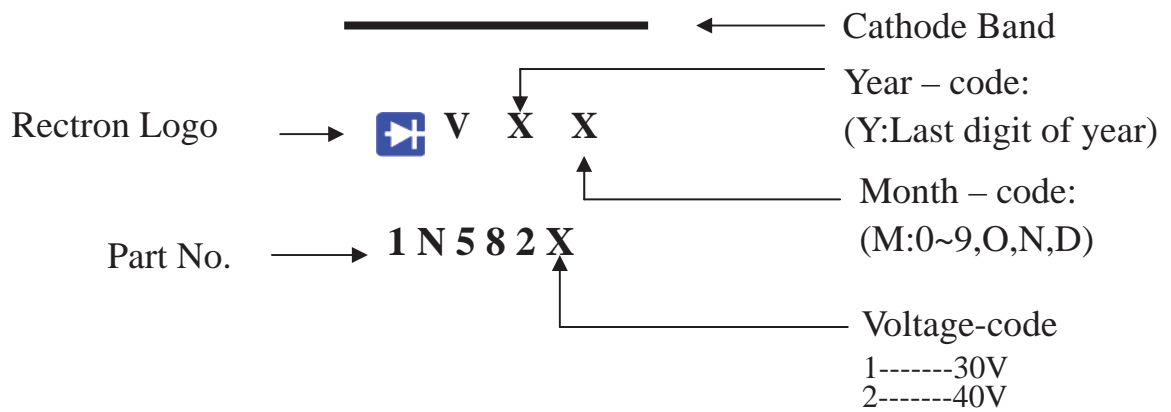


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|------------|---------------------|------------------|---------------|------------------|
| DO-201 | -B | 500 | 300*73*40 | 347*320*271 | 12,000 | 15.9 |

REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|-------------|------------------|----------------------|-----------------|---------------|------------------|---------------|------------------|
| DO-201 | -T | 1,200 | 1,200 | 5.0 | 52 | 330 | 355*350*335 | 4,800 | 9.10 |

AMMO PACK

| PACKAGE | PACKING CODE | REEL (EA) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON (EA) | GROSS WEIGHT (Kg) |
|---------|--------------|-------------|---------------------|-----------------|---------------|-----------------|---------------|-------------------|
| DO-201 | -F | 600 | 9.5 | 52 | 255*73*100 | 400*268*225 | 6,000 | 9.9 |

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