

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **20** to **40** Volts
FORWARD CURRENT - **3.0** Amperes

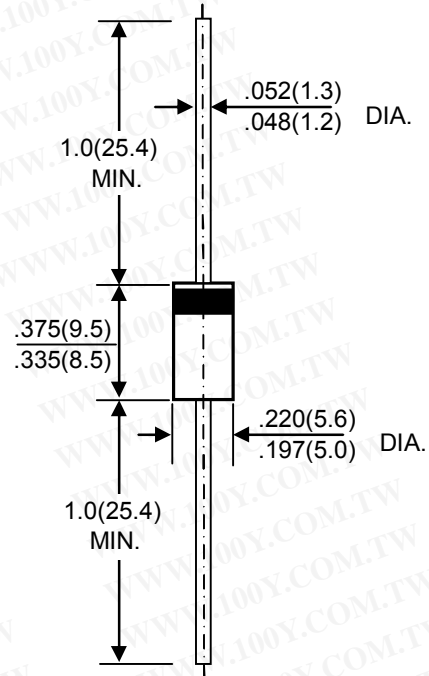
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.04 ounces , 1.1 grams
- Mounting position: Any

DO-27



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

| CHARACTERISTICS | SYMBOL | 1N5820 | 1N5821 | 1N5822 | UNIT |
|--|--------|-------------|--------|--------|------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 20 | 30 | 40 | V |
| Maximum RMS Voltage | VRMS | 14 | 21 | 28 | V |
| Maximum DC Blocking Voltage | VDC | 20 | 30 | 40 | V |
| Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @TL=95 °C | I(AV) | 3.0 | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method) | IFSM | 80 | | | A |
| Maximum Forward Voltage at 3.0A DC | VF | 0.45 | 0.55 | 0.60 | V |
| Maximum Forward Voltage at 9.4A DC | VF | 0.850 | 0.900 | 0.950 | V |
| Maximum DC Reverse Current @TJ=25°C at Rated DC Bolcking Voltage @TJ=100°C | IR | 1.0 | | | mA |
| Typical Junction Capacitance (Note1) | CJ | 250 | | | pF |
| Typical Thermal Resistance (Note2) | RθJL | 20 | | | °C/W |
| Operating Temperature Range | TJ | -55 to +125 | | | °C |
| Storage Temperature Range | TSTG | -55 to +150 | | | °C |

NOTES: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance junction to lead,



FIG. 1 – FORWARD CURRENT DERATING CURVE

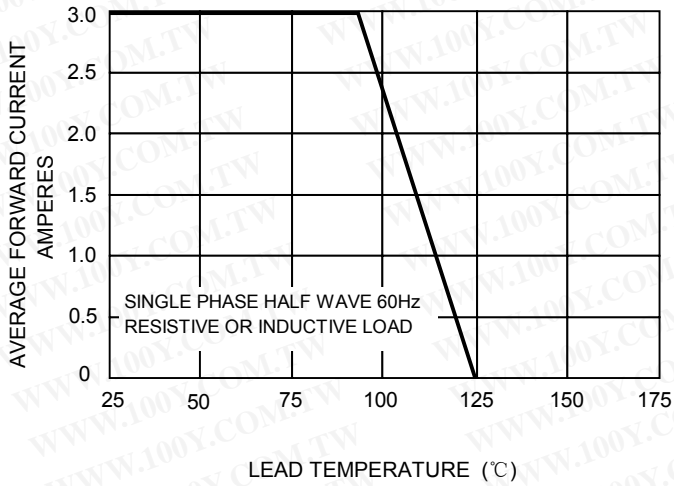


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

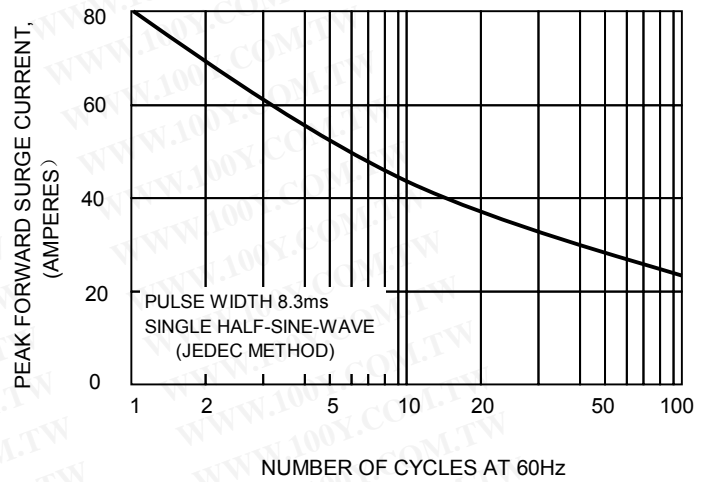


FIG.3 – TYPICAL JUNCTION CAPACITANCE

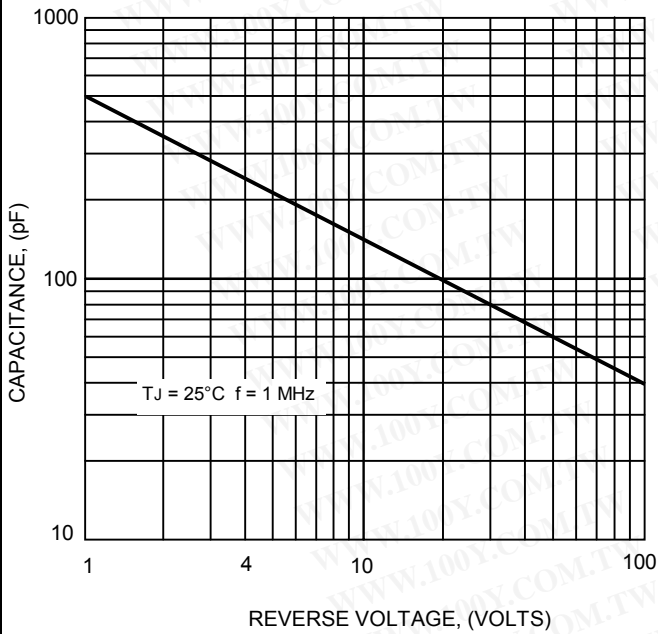
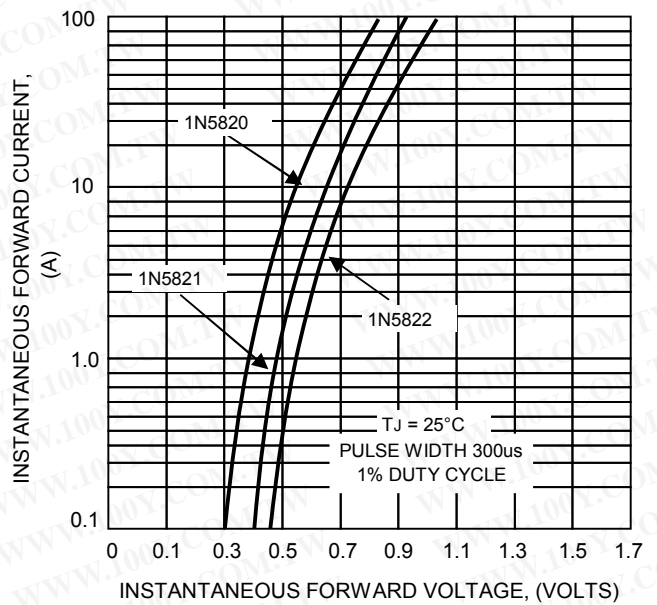


FIG.3-TYPICAL FORWARD CHARACTERISTICS



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