

GLASS PASSIVATED RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 3.0 A

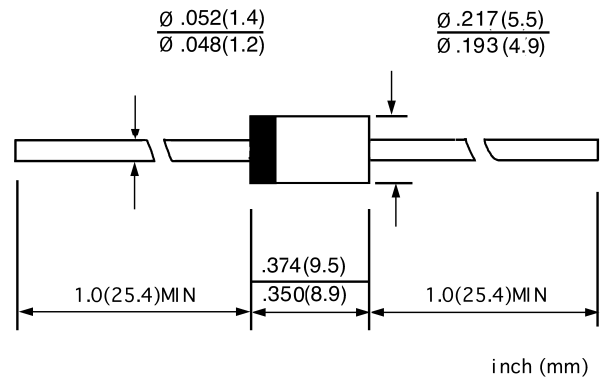
FEATURES

- ◇ The plastic package carries underwrites laboratory flammability classification 94V-0
- ◇ High current capability
- ◇ Low reverse leakage
- ◇ Glass passivated junction
- ◇ Low forward voltage drop
- ◇ High temperature soldering guaranteed:
350°C/10 seconds, 0.375"(9.5mm) lead length, 5lbs, (2.3kg) tension

MECHANICAL DATA

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Terminals: Axial lead, solderable per ML-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

DO - 27



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

| | | 1N5400G | 1N5401G | 1N5402G | 1N5403G | 1N5404G | 1N5405G | 1N5406G | 1N5407G | 1N5408G | UNITS |
|---|-----------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 350 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current 9.5mm lead length, @ $T_A = 75^\circ C$ | $I_{F(AV)}$ | 3.0 | | | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ C$ | I_{FSM} | 200.0 | | | | | | | | | A |
| Maximum instantaneous forward voltage at 3.0 A | V_F | 1.1 | | | | | | | | | V |
| Maximum reverse current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 100^\circ C$ | I_R | 10.0 100.0 | | | | | | | | | μA |
| Typical junction capacitance (Note1) | C_J | 35.0 | | | | | | | | | pF |
| Typical thermal Resistance (Note2) | $R_{\theta JA}$ | 20.0 | | | | | | | | | $^\circ C/W$ |
| Operating junction temperature range | T_J | - 55 --- + 175 | | | | | | | | | $^\circ C$ |
| Storage temperature range | T_{STG} | - 55 --- + 175 | | | | | | | | | $^\circ C$ |

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

2. Thermal Resistance Junction Ambient.

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FIG.1 – FORWARD CURRENT DERATING CURVE

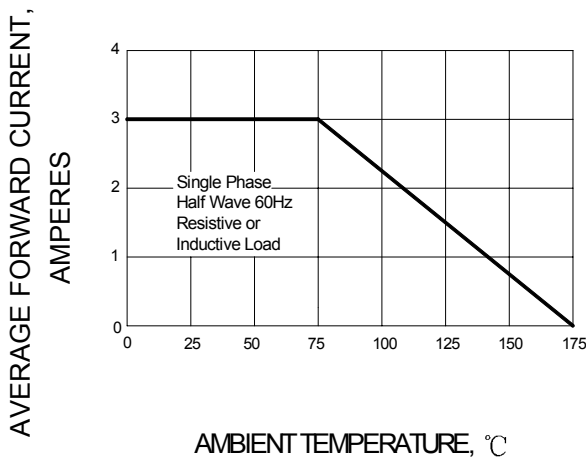


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

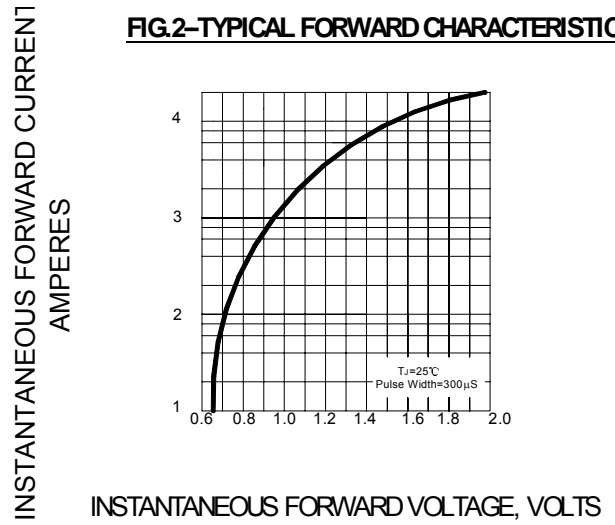


FIG.3 – PEAK FORWARD SURGE CURRENT

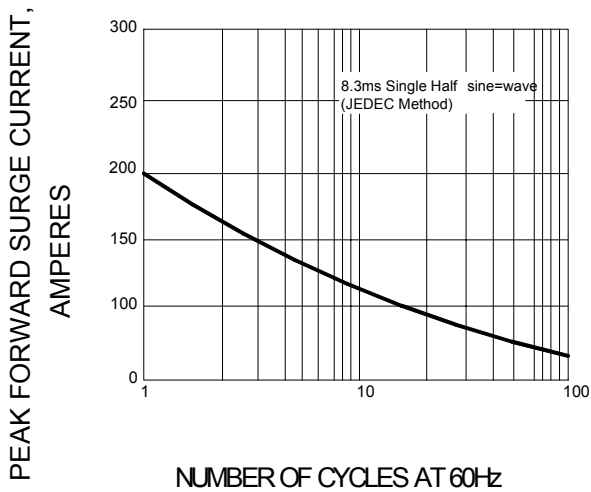


FIG.4 – TYPICAL JUNCTION CAPACITANCE

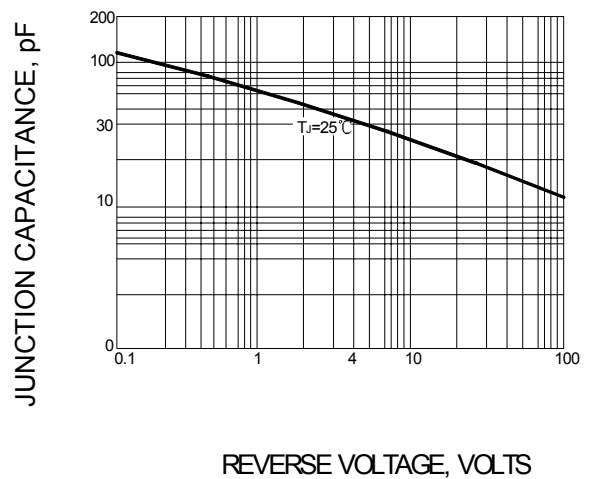


FIG.5 – TYPICAL REVERSE CHARACTERISTICS

