# SAMYANG ELECTRONICS

*1N5391G --- 1N5399G*

## GLASS PASSIVATED RECTIFIERS

**VOLTAGE RANGE: 50 --- 1000 V**
**CURRENT: 1.5 A**

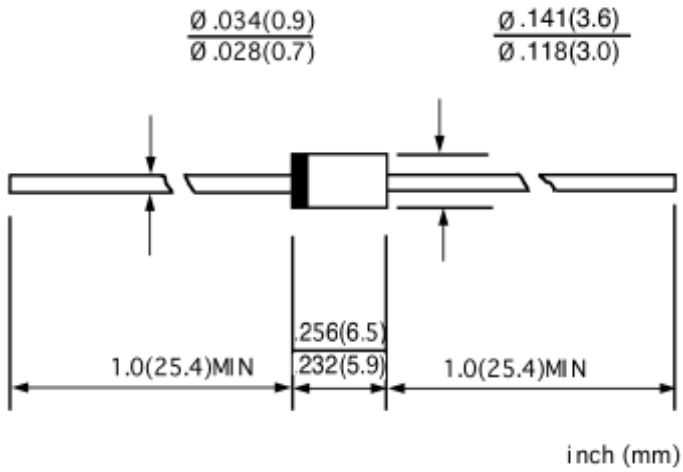
### FEATURES

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

### MECHANICAL DATA

- ◇ Case:JEDEC DO-15,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces0.39 grams
- ◇ Mounting position: Any

**DO - 15**




### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

| | | 1N 5391G | 1N 5392G | 1N 5393G | 1N 5394G | 1N 5395G | 1N 5396G | 1N 5397G | 1N 5398G | 1N 5399G | 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℃ | $I_{F(AV)}$ | 1.5 | | | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @$T_J$=125℃ | $I_{FSM}$ | 50.0 | | | | | | | | | A |
| Maximum instantaneous forward voltage @ 1.5 A | $V_F$ | 1.1 | | | | | | | | | V |
| Maximumreverse current @$T_A$=25℃ | $I_R$ | 5.0 | | | | | | | | | μA |
| at rated DC blocking voltage @$T_A$=100℃ | | 50.0 | | | | | | | | | |
| Typical junction capacitance (Note1) | $C_J$ | 20.0 | | | | | | | | | pF |
| Operating junction temperature range | $T_J$ | - 50 ---- + 175 | | | | | | | | | ℃ |
| Storage temperature range | $T_{STG}$ | - 50---- + 175 | | | | | | | | | ℃ |

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

**FIG.1 –FORWARD CURRENT DERATING CURVE**

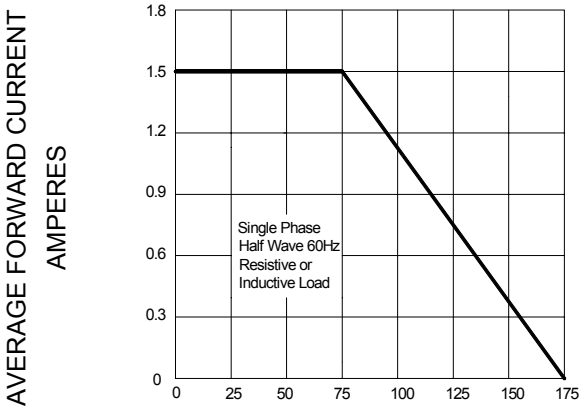



**FIG.2 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

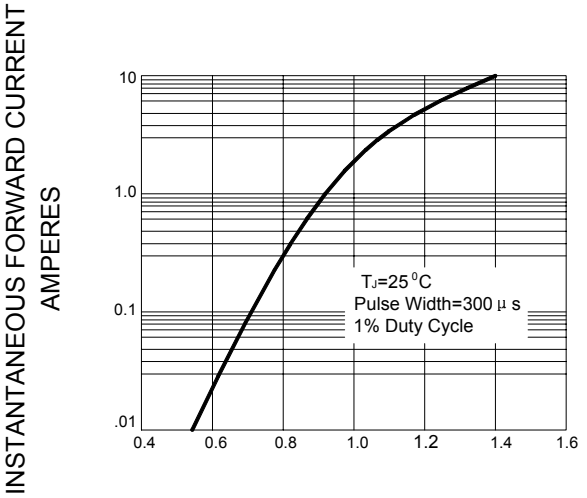



**FIG.3 -- PEAK FORWARD SURGE CURRENT**

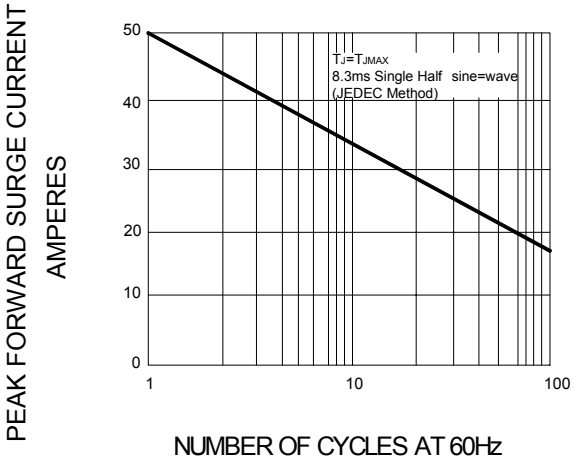



**FIG.4 -- TYPICAL JUNCTION CAPACITANCE**

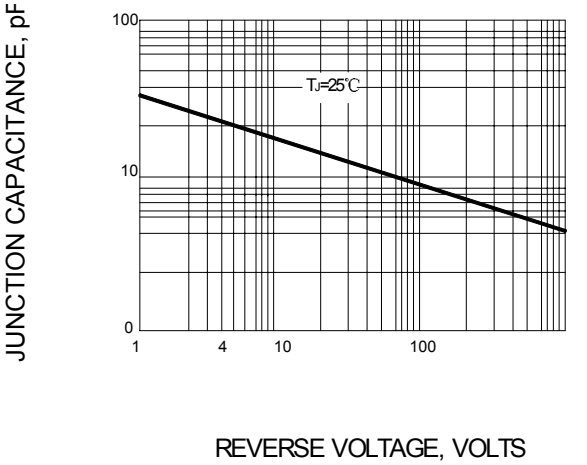



**FIG.5 -- TYPICAL REVERSE CHARCTERISTICS**

