

RGL1A-RGL1M

Surface Mount Rectifiers

VOLTAGE RANGE: 50 --- 1000 V

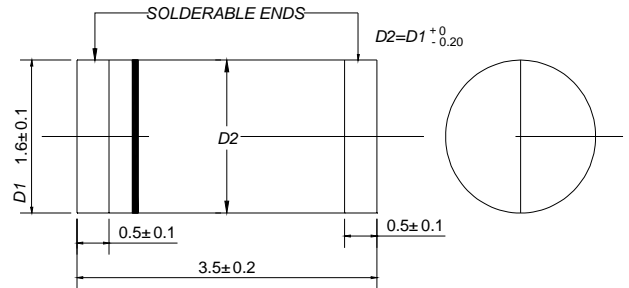
CURRENT: 1.0 A



DO - 213AA

Features

- Plastic package has underwriters laboratories flammability classification 94V-0
- Glass passivated chip junction
- For surface mount applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- High temperature soldering guaranteed:450 /5 seconds at terminals.Complete device sub-mersible temperature of 265 for 10 seconds in solder bath



Dimensions in millimeters

Mechanical Data

- Case: JEDEC DO-213AA,molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.0014 ounces, 0.036 grams
- Mounting position: Any

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 current by 20%.

| | | RGL 1A | RGL 1B | RGL 1D | RGL 1G | RGL 1J | RGL 1K | RGL 1M | UNITS |
|--|-----------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current $T_T=75$ | $I_{(AV)}$ | 1.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 25 | | | | | | | A |
| Maximum instantaneous forward voltage @1.0A | V_F | 1.3 | | | | | | | V |
| Maximum reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$ | I_R | 5.0 50 | | | | | | | μA |
| Maximum reverse recovery time (Note 1) | t_{rr} | 150 | | | 250 | 500 | | | ns |
| Typical thermal resistance (Note 3) | $R_{\theta JA}$ | 150 | | | | | | | /W |
| Operating junction temperature range | T_j | - 55 ---- +175 | | | | | | | |
| Storage temperature range | T_{STG} | - 55 ---- +175 | | | | | | | |

NOTE: 1. Measured with $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

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

3. Thermal resistance from junction to ambient, 0.24x0.24"(6.0x6.0mm) copper pads to each terminal.

Ratings AND Characteristic Curves

FIG.1 – FORWARD CURRENT DERATING CURVE

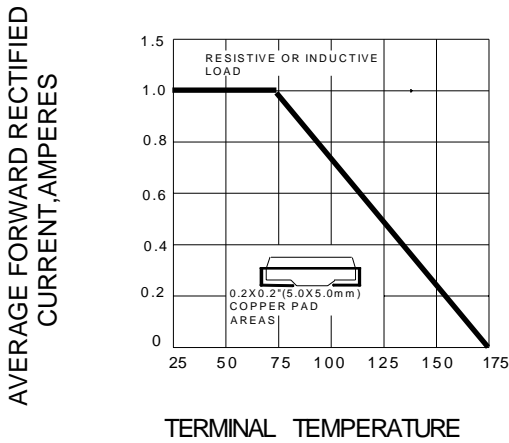


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

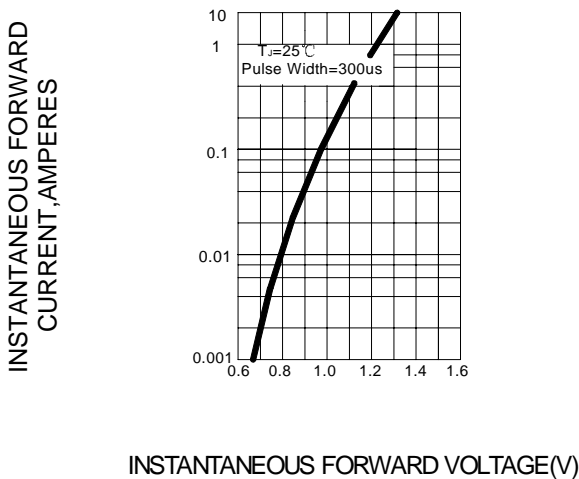


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

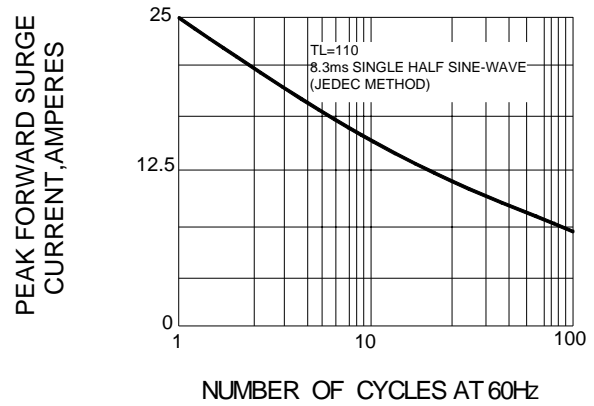


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

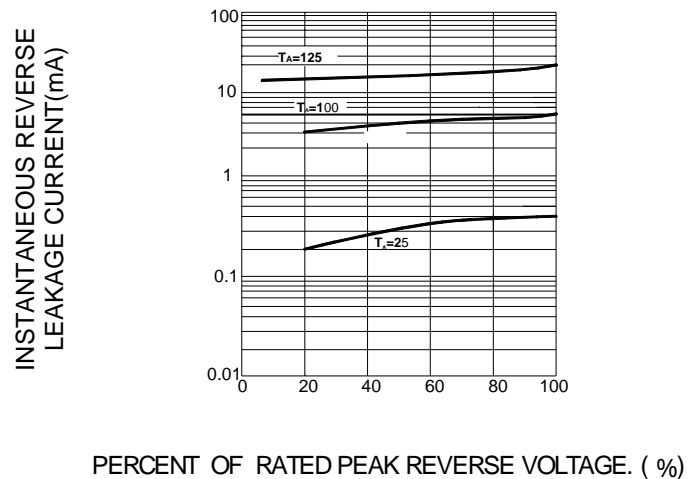
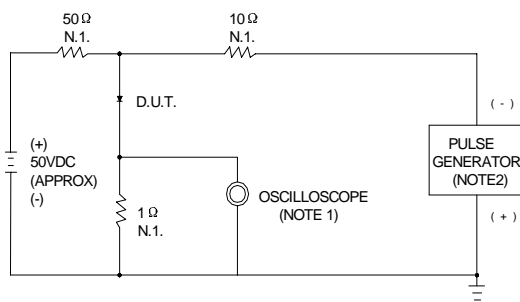


FIG.5 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1M Ω . 22pF
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50 Ω

