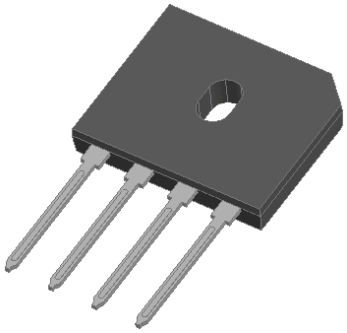
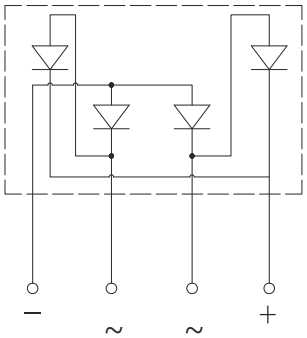
# Fast Recovery Bridge Rectifier






## Features

- UL recognition, file #E230084

" **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

## ■Maximum Ratings ($T_a$=25 Unless otherwise specified

| PARAMETER | | SYMBOL | UNIT | RGBU610 |
|---|---|---|---|---|
| Device marking code | | | | RGBU610 |
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | V | 1000 |
| Maximum RMS Voltage | | $V_{RMS}$ | V | 700 |
| Maximum DC blocking Voltage | | $V_{DC}$ | V | 1000 |
| Average rectified output current @60Hz sine wave, R-load | With heatsink Tc =118 | $I_O$ | A | 6.0 |
| | Without heatsink Ta =25 | | | 2.8 |
| Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25 | | $I_{FSM}$ | A | 150 |
| Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25 | | | | 300 |
| Current squared time @1ms≤t≤8.3ms Tj=25 , Rating of per diode | | $I^2t$ | $A^2S$ | 93.4 |
| Storage temperature | | $T_{stg}$ | | -55 ~ +150 |
| Junction temperature | | $T_j$ | | -55 ~ +150 |
| Dielectric strength @ Terminals to case, AC 1 minute | | Vdis | KV | 2.5 |
| Mounting torque @Recommend torque 5kg cm | | Tor | kg cm | 8 |

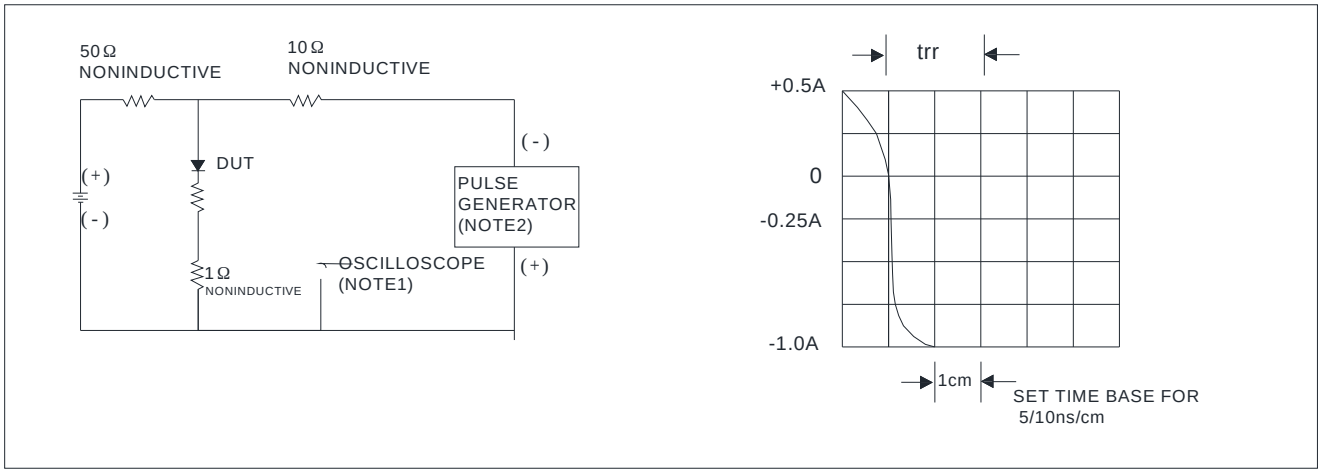
## ■Electrical Characteristics $T_a$=25 Unless otherwise specified

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | RGBU610 |
|---|---|---|---|---|
| Maximum reverse recovery time | $t_{rr}$ | ns | $I_F$=0.5A, $I_R$=1.0A, $I_{rr}$=0.25A | 500 |
| Maximum instantaneous forward voltage drop per diode | $V_F$ | V | $I_{FM}$=3.0A | 1.3 |
| Maximum DC reverse current at rated DC blocking voltage per diode | $I_R$ | μA | $T_j$=25 | 5 |
| | | | $T_j$=125 | 100 |
| Typical junction capacitance | Cj | pF | Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C | 38 |

■**Thermal Characteristics** $T_a$=25 Unless otherwise specified

| PARAMETER | | UNIT | RGBU610 |
|---|---|---|---|

**FIG.5: Diagram of circuit and Testing wave form of reverse recovery time**




## ■ Outline Dimensions

| GBU | | |
|---|---|---|
| Dim | Min | Max |
| A | 21.80 | 22.30 |
| B | 18.30 | 18.80 |
| C | 17.50 | 18.00 |
| D | 3.30 | 3.90 |
| E | 7.10 | 7.50 |
| F | 5.50 | 5.90 |
| G | 1.91 | 2.54 |
| H | 2.06 | 2.54 |
| I | 1.02 | 1.27 |
| J | 4.83 | 5.33 |
| K | 3.30 | 3.56 |
| L | 2.40 | 2.66 |
| M | 0.46 | 0.56 |