

# isc Triacs TPDV1240RG

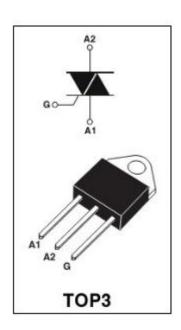
#### **FEATURES**

- With TOP3 insulated package
- Be suitable for general purpose where high surge current capability is required.

  Application such as phase control and tatic switching on inductive or resistive load.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

| SYMBOL               | PARAMETER   | MIN     | UNIT       |  |  |  |  |  |  |
|----------------------|---|---------|------------|--|--|--|--|--|--|
| $V_{DRM}$            | Repetitive peak off-state voltage                         | 1200    | V          |  |  |  |  |  |  |
| $V_{RRM}$            | Repetitive peak reverse voltage                           | 1200    | V          |  |  |  |  |  |  |
| I <sub>T(RMS)</sub>  | RMS on-state current (full sine wave)Tc=75°C              | 40      | Α          |  |  |  |  |  |  |
| I <sub>TSM</sub>     | Non-repetitive peak on-state current t <sub>p</sub> =10ms | 350     | Α          |  |  |  |  |  |  |
| Tj                   | Operating junction temperature                            | -40~125 | $^{\circ}$ |  |  |  |  |  |  |
| T <sub>stg</sub>     | Storage temperature                                       | -40~150 | $^{\circ}$ |  |  |  |  |  |  |
| P <sub>G(AV)</sub>   | Average gate power dissipation(T <sub>j</sub> =125°C)     | 1       | W          |  |  |  |  |  |  |
| R <sub>th(j-c)</sub> | Thermal resistance, junction to case                      | 1.2     | °C/W       |  |  |  |  |  |  |
| R <sub>th(j-a)</sub> | Thermal resistance, junction to ambient                   | 50      | °C/W       |  |  |  |  |  |  |



## **ELECTRICAL CHARACTERISTICS (Tc=25℃ unless otherwise specified)**

| SYMBOL           | PARAMETER                         |     | CONDITIONS   | MAX       | UNIT |
|------------------|-----------------------------------|-----|--|-----------|------|
| I <sub>RRM</sub> | Repetitive peak reverse current   |     | VR=VRRM,<br>VR=VRRM, Tj=125°C  | 0.02<br>8 | mA   |
| I <sub>DRM</sub> | Repetitive peak off-state current |     | V <sub>D</sub> =V <sub>DRM</sub> ,<br>V <sub>D</sub> =V <sub>DRM</sub> , Tj=125 °C | 0.02<br>8 | mA   |
| Ідт              |                                   | I   | V <sub>D</sub> =12V; R <sub>L</sub> = 33 Ω   | 200       | mA   |
|                  | Gate trigger current              | II  |  | 200       |      |
|                  |                                   | III |  | 200       |      |
| I <sub>H</sub>   | Holding current                   |     | I <sub>GT</sub> = 0.5A, Gate Open  | 50        | mA   |
| V <sub>GT</sub>  | Gate trigger voltage all quadrant |     | V <sub>D</sub> =12V; R <sub>L</sub> = 33 Ω   | 1.5       | V    |
| V <sub>TM</sub>  | On-state voltage                  |     | I <sub>TM</sub> = 35A; t <sub>p</sub> = 380 μ s                                    | 1.8       | V    |



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