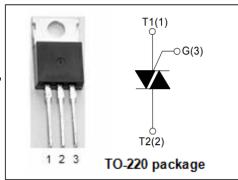


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## **FEATURES**

- With TO-220AB(Isolated) non insulated package
- Suitable for general purpose AC switching. Which can be used as an ON/OFF function in applications such as static relays, heating regulation, induction motor starting circuits. Or for phase control operation in light dimmers, motor speed controllers etc.
- 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                                  | 600     | V            |   |
| $V_{RRM}$            | Repetitive peak off-state voltage                                  | 600     | V            |   |
| I <sub>T(RMS)</sub>  | RMS on-state current (full sine wave) Tc=                          | 25      | Α            |   |
| I <sub>TSM</sub>     | Non-repetitive peak on-state current $t_p=20ms$ , $Tj=25^{\circ}C$ | f=50Hz  | 250          | А |
|                      |  | f=60Hz  | 300          |   |
| Tj                   | Operating junction temperature                                     | -40~150 | $^{\circ}$ C |   |
| T <sub>stg</sub>     | Storage temperature  | -40~150 | $^{\circ}$ C |   |
| R <sub>th(j-c)</sub> | Thermal resistance, junction to case                               | 0.86    | °C/W         |   |
| R <sub>th(j-a)</sub> | Thermal resistance, junction to ambient                            | 45      | °C/W         |   |

## ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise specified)

| SYMBOL           | PARAMETER                         |     | CONDITIONS  | MAX       | UNIT |
|------------------|-----------------------------------|-----|---|-----------|------|
| I <sub>RRM</sub> | Repetitive peak reverse current   |     | V <sub>R</sub> =V <sub>RRM</sub> ,<br>V <sub>R</sub> =V <sub>RRM</sub> , Tj=125°C | 5<br>6000 | uA   |
| I <sub>DRM</sub> | Repetitive peak off-state current |     | $V_D = V_{DRM}$ , $V_D = V_{DRM}$ , $T_J = 125 ^{\circ}C$                         | 5<br>6000 | uA   |
| I <sub>GT</sub>  |                                   | Ι   |   | 50        |      |
|                  |                                   | II  | $V_D=12V; R_L=60\Omega$   | 50        | mA   |
|                  |                                   | III |   | 50        |      |
| I <sub>H</sub>   | Holding current                   |     | I <sub>GT</sub> = 400mA, Gate Open  | 80        | mA   |
| $V_{GT}$         | Gate trigger voltage all quadrant |     | $V_D=12V; R_L=60\Omega$   | 1.3       | V    |
| $V_{TM}$         | On-state voltage                  |     | $I_T$ = 35.4A; $t_p$ = 380 $\mu$ s  | 1.4       | V    |



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