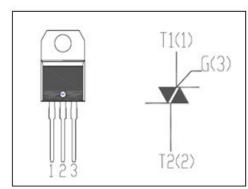
isc Triacs Q6012LH5

## **FEATURES**

- · With TO-220AB insulated package
- Suitables 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)   | 12      | Α            |
| I <sub>TSM</sub>     | Non-repetitive peak on-state current    | 120     | Α            |
| T <sub>j</sub>       | Operating junction temperature          | -40~125 | $^{\circ}$ C |
| T <sub>stg</sub>     | Storage temperature                     | -40~125 | $^{\circ}$ C |
| R <sub>th(j-c)</sub> | Thermal resistance, junction to case    | 2.1     | °C/W         |
| R <sub>th(j-a)</sub> | Thermal resistance, junction to ambient | 60      | °C/W         |

## ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise specified)

| SYMBOL           | PARAMETER                         |           | CONDITIONS                                     | MAX       | UNIT |
|------------------|-----------------------------------|-----------|--|-----------|------|
| I <sub>RRM</sub> | Repetitive peak revers            | e current | $V_R=V_{RRM}$ , $V_R=V_{RRM}$ , $T_j=125$ °C   | 0.01<br>2 | mA   |
| I <sub>DRM</sub> | Repetitive peak off-state current |           | $V_D=V_{DRM}$ , $V_D=V_{DRM}$ , $T_j=125$ °C   | 0.01<br>2 | mA   |
| І <sub>СТ</sub>  |                                   | Ι         | V <sub>D</sub> =12V; R <sub>L</sub> = 33 Ω     | 50        | mA   |
|                  | Gate trigger current              | II        |  | 50        |      |
|                  |                                   | III       |  | 50        |      |
| I <sub>H</sub>   | Holding current                   |           | I <sub>GT</sub> = 0.1A, Gate Open              | 50        | mA   |
| $V_{GT}$         | Gate trigger voltage all quadrant |           | V <sub>D</sub> =12V; R <sub>L</sub> = 33 Ω     | 1.3       | V    |
| V <sub>TM</sub>  | On-state voltage                  |           | I <sub>T</sub> = 20A; t <sub>p</sub> = 380 μ s | 1.6       | V    |

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