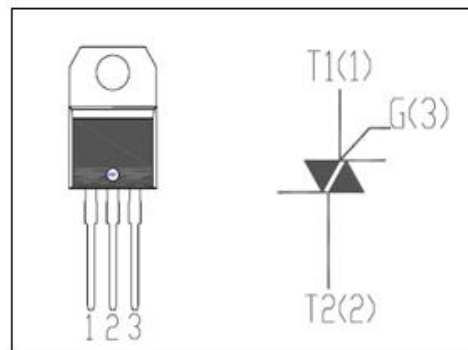


## isc Triacs

## BTB16

## FEATURES

- With TO-220AB 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°C)

| SYMBOL               | PARAMETER   | MIN     | UNIT |
|----------------------|---|---------|------|
| V <sub>DRM</sub>     | Repetitive peak off-state voltage                           | 800     | V    |
| V <sub>RRM</sub>     | Repetitive peak off-state voltage                           | 800     | V    |
| I <sub>T(RMS)</sub>  | RMS on-state current (full sine wave) T <sub>c</sub> =100°C | 16      | A    |
| I <sub>TSM</sub>     | Non-repetitive peak on-state current t <sub>p</sub> =20ms   | 160     | A    |
| T <sub>j</sub>       | Operating junction temperature                              | 125     | °C   |
| T <sub>stg</sub>     | Storage temperature   | -40~150 | °C   |
| 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                     | 60      | °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> , T <sub>j</sub> =125°C | 0.005<br>2 | 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> , T <sub>j</sub> =125°C | 0.005<br>2 | mA   |    |
| I <sub>GT</sub>  | Gate trigger current              | V <sub>D</sub> =12V; R <sub>L</sub> = 33 Ω   | I          | 50   | mA |
|                  |                                   |  | II         | 50   |    |
|                  |                                   |  | III        | 50   |    |
|                  |                                   |  | IV         | 100  |    |
| 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   | 1.3        | V    |    |
| V <sub>TM</sub>  | On-state voltage                  | I <sub>T</sub> = 22.5A; t <sub>p</sub> = 380 μ s   | 1.55       | V    |    |