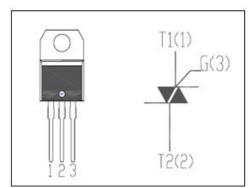


# isc Triacs BTA12-400C

### **FEATURES**

- With TO-220AB 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 <sub>DRM</sub>     | Repetitive peak off-state voltage                         | 400     | V          |
| $V_{RRM}$            | Repetitive peak off-state voltage                         | 400     | V          |
| I <sub>T(RMS)</sub>  | RMS on-state current (full sine wave)T <sub>j</sub> =90℃  | 12      | Α          |
| I <sub>TSM</sub>     | Non-repetitive peak on-state current t <sub>p</sub> =20ms | 120     | Α          |
| T <sub>j</sub>       | Operating junction temperature                            | 125     | $^{\circ}$ |
| T <sub>stg</sub>     | Storage temperature                                       | -40~150 | $^{\circ}$ |
| R <sub>th(j-c)</sub> | Thermal resistance, junction to case                      | 2.3     | °C/W       |
| R <sub>th(j-a)</sub> | Thermal resistance, junction to ambient                   | 60      | °C/W       |

## ELECTRICAL CHARACTERISTICS ( $T_{\text{C}}$ =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> , Tj=25°C<br>V <sub>R</sub> =V <sub>RRM</sub> , Tj=125°C | 0.005<br>1 | mA   |
| I <sub>DRM</sub> | Repetitive peak off-state current |     | $V_D=V_{DRM}$ , $Tj=25^{\circ}C$<br>$V_D=V_{DRM}$ , $Tj=125^{\circ}C$                     | 0.005<br>1 | mA   |
| I <sub>GT</sub>  |                                   | I   | - V <sub>D</sub> =12V; R <sub>L</sub> = 30 Ω  | 25         | mA   |
|                  | Gate trigger current              | II  |   | 25         |      |
|                  |                                   | III |   | 25         |      |
|                  |                                   | IV  |   | 50         |      |
| lΗ               | Holding current                   |     | I <sub>GT</sub> = 0.5A, Gate Open   | 25         | mA   |
| $V_{GT}$         | Gate trigger voltage all quadrant |     | V <sub>D</sub> =12V; R <sub>L</sub> = 30 Ω  | 1.3        | V    |
| $V_{TM}$         | On-state voltage                  |     | I <sub>T</sub> = 17A; t <sub>p</sub> = 380 μ s  | 1.55       | V    |



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