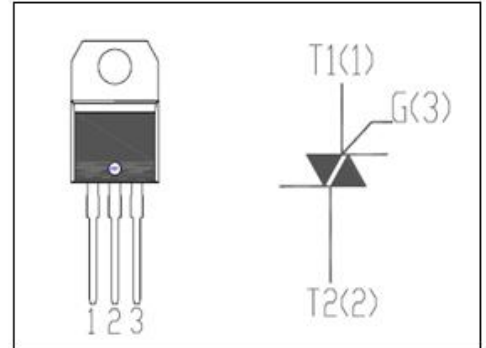


## isc Triacs

## BTB10-800B

## 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( $T_a=25^\circ\text{C}$ )

| SYMBOL               | PARAMETER                                                    | MIN     | UNIT               |
|----------------------|--------------------------------------------------------------|---------|--------------------|
| $V_{\text{DRM}}$     | Repetitive peak off-state voltage                            | 800     | V                  |
| $V_{\text{RRM}}$     | Repetitive peak off-state voltage                            | 800     | V                  |
| $I_{\text{T(RMS)}}$  | RMS on-state current (full sine wave) $T_c=95^\circ\text{C}$ | 10      | A                  |
| $I_{\text{TSM}}$     | Non-repetitive peak on-state current $t_p=10\text{ms}$       | 100     | A                  |
| $T_j$                | Operating junction temperature                               | 125     | $^\circ\text{C}$   |
| $T_{\text{stg}}$     | Storage temperature                                          | -40~150 | $^\circ\text{C}$   |
| $R_{\text{th(j-c)}}$ | Thermal resistance, junction to case                         | 3.1     | $^\circ\text{C/W}$ |
| $R_{\text{th(j-a)}}$ | Thermal resistance, junction to ambient                      | 60      | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ\text{C}$  unless otherwise specified)

| SYMBOL           | PARAMETER                         |     | CONDITIONS                                                               | MAX         | UNIT |
|------------------|-----------------------------------|-----|--------------------------------------------------------------------------|-------------|------|
| $I_{\text{RRM}}$ | Repetitive peak reverse current   |     | $V_R=V_{\text{RRM}}$ ,<br>$V_R=V_{\text{RRM}}$ , $T_j=110^\circ\text{C}$ | 0.01<br>0.5 | mA   |
| $I_{\text{DRM}}$ | Repetitive peak off-state current |     | $V_D=V_{\text{DRM}}$ ,<br>$V_D=V_{\text{DRM}}$ , $T_j=110^\circ\text{C}$ | 0.01<br>0.5 | mA   |
| $I_{\text{GT}}$  | Gate trigger current              | I   | $V_D=12\text{V}$ ; $R_L=33\ \Omega$                                      | 50          | mA   |
|                  |                                   | II  |                                                                          | 50          |      |
|                  |                                   | III |                                                                          | 50          |      |
|                  |                                   | IV  |                                                                          | 100         |      |
| $I_{\text{H}}$   | Holding current                   |     | $I_{\text{GT}}=0.5\text{A}$ , Gate Open                                  | 50          | mA   |
| $V_{\text{GT}}$  | Gate trigger voltage all quadrant |     | $V_D=12\text{V}$ ; $R_L=33\ \Omega$                                      | 1.5         | V    |
| $V_{\text{TM}}$  | On-state voltage                  |     | $I_T=14\text{A}$ ; $t_p=380\ \mu\text{s}$                                | 1.5         | V    |

**NOTICE:**

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.

