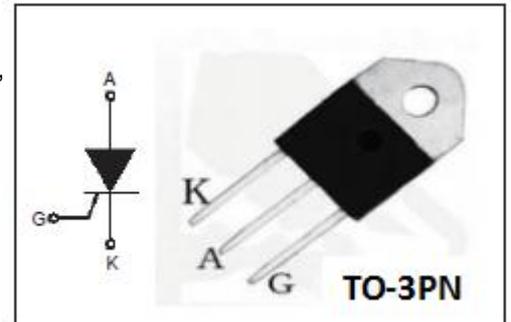


**isc Thyristors**
**BTW69-1000**
**APPLICATIONS**

- Available in high power packages, BTW69 Series is suitable in applications where power handling and power dissipation are critical, such as solid state relays, welding equipment, high power motor
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

| SYMBOL              | PARAMETER                                       | MIN                         | UNIT |
|---------------------|---|-----------------------------|------|
| V <sub>DRM</sub>    | Repetitive peak off-state voltage               | 1000                        | V    |
| V <sub>RDM</sub>    | Repetitive peak reverse voltage                 | 1000                        | V    |
| I <sub>T(AV)</sub>  | Average on-state current, T <sub>c</sub> =70° C | 32                          | A    |
| I <sub>T(RMS)</sub> | RMS on-state current T <sub>c</sub> =70° C      | 50                          | A    |
| I <sub>TSM</sub>    | Surge non-repetitive on-state current           | T <sub>p</sub> =10ms<br>500 | A    |
| P <sub>G(AV)</sub>  | Average gate power dissipation                  | 1                           | W    |
| T <sub>j</sub>      | Operating junction temperature                  | -40~125                     | °C   |
| T <sub>stg</sub>    | Storage temperature                             | -40~150                     | °C   |

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

| SYMBOL               | PARAMETER                         | CONDITIONS                                   | MIN                   | MAX  | UNIT |
|----------------------|-----------------------------------|--|-----------------------|------|------|
| I <sub>RDM</sub>     | Repetitive peak reverse current   | V <sub>RM</sub> =V <sub>RDM</sub> ,          | T <sub>j</sub> =25°C  | 10   | μ A  |
|                      |                                   |  | T <sub>j</sub> =125°C | 5    | mA   |
| I <sub>DRM</sub>     | Repetitive peak off-state current | V <sub>DM</sub> =V <sub>DRM</sub> ,          | T <sub>j</sub> =25°C  | 10   | μ A  |
|                      |                                   |  | T <sub>j</sub> =125°C | 5    | mA   |
| V <sub>TM</sub>      | On-state voltage                  | I <sub>TM</sub> = 100A                       |                       | 1.75 | V    |
| I <sub>GT</sub>      | Gate-trigger current              | V <sub>D</sub> = 12 V, R <sub>I</sub> = 33 Ω |                       | 80   | mA   |
| V <sub>GT</sub>      | Gate-trigger voltage              | V <sub>D</sub> = 12 V, R <sub>I</sub> = 33 Ω |                       | 1.3  | V    |
| R <sub>th(j-c)</sub> | Thermal resistance                | Junction to case                             |                       | 0.9  | °C/W |

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**NOTICE:**

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