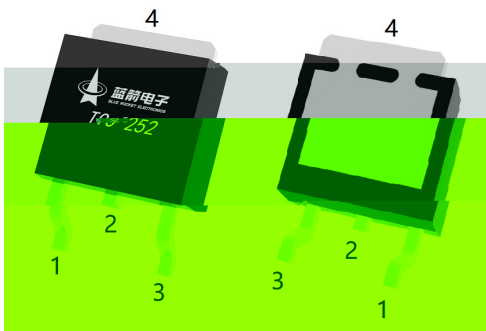
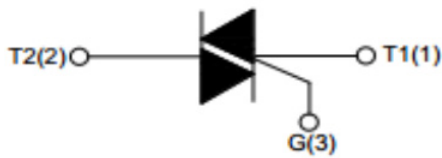


Triac in a TO-252 Plastic Package.

Medium current triac, Low on state voltage drop, High reliability and stability, Low thermal resistance, HF Product.

Suitable for general purpose AC switching .Such as static relays, heating regulation, induction motor starting circuits, motor speed controllers, etc.



PIN1   Main Terminal 1   PIN 2   4   Main Terminal 2   PIN 3   Gate

/ Absolute Maximum Ratings( $T_a=25$  )

| Parameter                                                                         | Symbol              | Rating  | Unit             |
|-----------------------------------------------------------------------------------|---------------------|---------|------------------|
| Repetitive peak off-state/reverse voltages( $T_j=125$ )                           | $V_{DRM}/V_{RRM}$   | 800     | V                |
| RMS on-state current( $T_c=110$ )                                                 | $I_{T(RMS)}$        | 8       | A                |
| Non repetitive surge peak on-state current(full cycle, $T_j=25^{\circ}C$ )        | $I_{TSM}(t=20ms)$   | 80      | A                |
| $I^2t$ value for fusing( $T_j=25$ )                                               | $I^2t_{(tp=10ms)}$  | 32      | A <sup>2</sup> s |
| Critical rate of rise of on-state current ( $I_G=2I_{GT}$ , $f=120Hz$ $T_j=125$ ) | $dI/dt$<br>I-II-III | 50      | A/ $\mu s$       |
| Peak gate current( $t_p=20\mu s$ $T_j=125$ )                                      | $I_{GM}$            | 4.0     | A                |
| Average gate power dissipation( $T_j=125$ )                                       | $P_{G(AV)}$         | 1.0     | W                |
| Operating junction temperature range                                              | $T_j$               | -40 125 |                  |
| Storage junction temperature range                                                | $T_{stg}$           | -40 150 |                  |
| Junction to ambient(AC)                                                           | $R_{th(j-a)}$       | 100     | /W               |
| Junction to case for(AC)                                                          | $R_{th(j-c)}$       | 3.1     |                  |

/ Electrical Characteristics( $T_j=25$  )

## 3 / Snubberless and logic level 3 quadrants)

| Symbol    | Test Conditions                             | Quadrant  | Value |      | Unit       |
|-----------|---------------------------------------------|-----------|-------|------|------------|
| $I_{GT}$  | $V_D=12V$ $R_L=30\Omega$                    | I-II-III  | Max.  | 10   | mA         |
| $V_{GT}$  | $V_D=12V$ $R_L=30\Omega$                    | I-II-III  | Max.  | 1    | V          |
| $V_{GD}$  | $V_D=V_{DRM}$ $R_L=3.3K\Omega$<br>$T_j=125$ | I-II-III  | Min.  | 0.2  | V          |
| $I_L$     | $I_G=1.2I_{GT}$                             | I-III     | Max.  | 25   | mA         |
|           |                                             | II        |       | 30   |            |
| $I_H$     | $I_T=100mA$                                 |           | Max.  | 15   | mA         |
| (dV/dt)   | $V_D=67\% V_{DRM}$ Gate Open                | $T_j=125$ | Min.  | 40   | V/ $\mu s$ |
| $V_{TM}$  | $I_{TM}=11A$ $t_p=380\mu s$                 | $T_j=25$  | Max.  | 1.55 | V          |
| $I_{DRM}$ | $V_D=V_{DRM}$ $V_R=V_{RRM}$                 | $T_j=25$  |       | 5    | $\mu A$    |
| $I_{RRM}$ |                                             | $T_j=125$ |       | 0.35 | mA         |

# BRBT0808SWDP

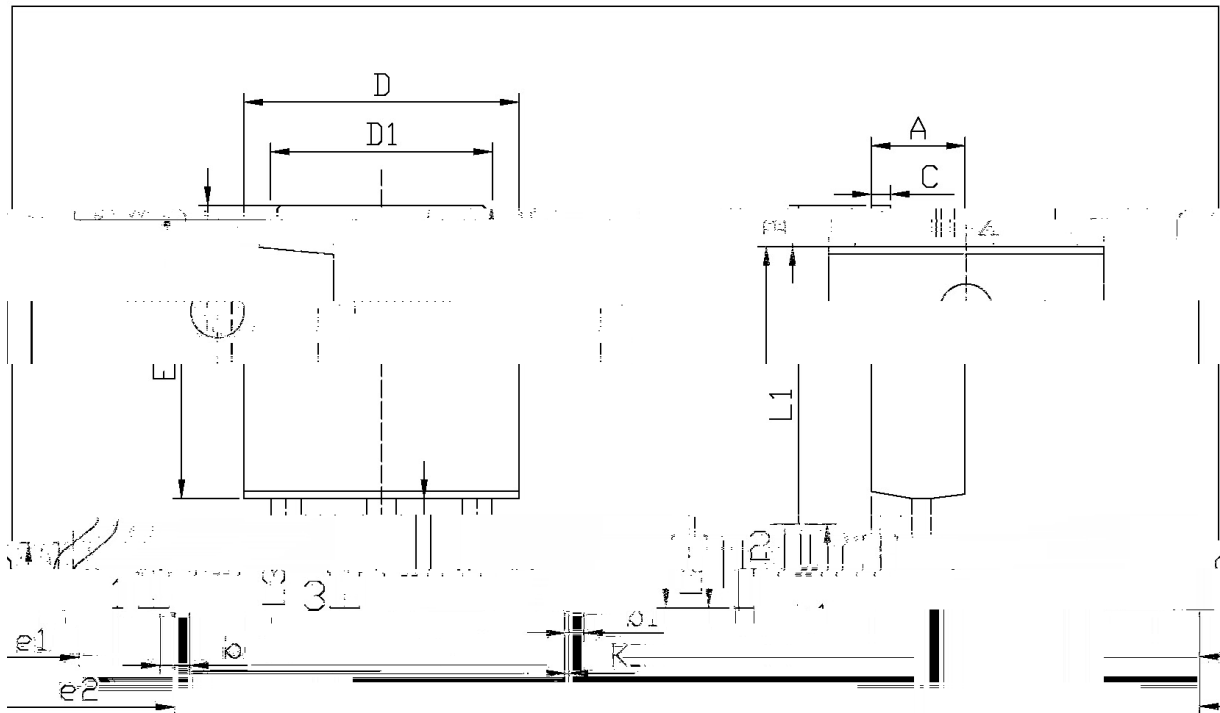
Rev.A Nov.-2023



**蓝箭电子**  
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Package Dimensions



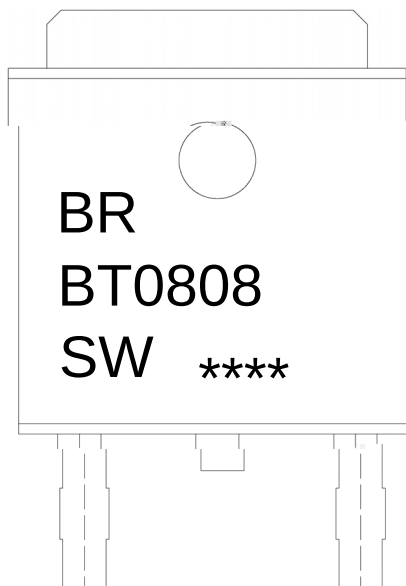
单位: mm

| Symbol | Dimensions In Millimeters |      | Symbol | Dimensions In Millimeters |      |
|--------|---------------------------|------|--------|---------------------------|------|
|        | Min                       | Max  |        | Min                       | Max  |
| A      | 2.20                      | 2.40 | E      | 5.95                      | 6.25 |
| B      | 0.95                      | 1.25 | e1     | 2.24                      | 2.34 |
| b      | 0.50                      | 0.90 | e2     | 4.43                      | 4.73 |
| b1     | 0.45                      | 0.55 | L1     | 9.45                      | 9.95 |
| C      | 0.45                      | 0.55 | L2     | 1.25                      | 1.75 |
| D      | 6.45                      | 6.75 | L3     | 0.60                      | 0.90 |
| D1     | 5.10                      | 5.50 | K      | 0.00                      | 0.10 |

T0-252



**/ Marking Instructions**



Note:

BR: Company Code

BT0808: Product Type Code

SW: I<sub>GT</sub> Bracket code

\*\*\*\*: Lot No. Code, code change with Lot No

(     ) /

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|--|
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|  |
|  |
|  |
|  |
|  |

Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245 5

5 0.5sec;

2.Peak Temp.:245 5 , Duration:5 0.5sec.
- 3

2 10

/sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260 5                      10 1 sec.                      Temp.:260±5                      Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type | Units           |                      |                      |                            |                      | Dimension (unit mm <sup>3</sup> ) |           |           |
|--------------|-----------------|----------------------|----------------------|----------------------------|----------------------|-----------------------------------|-----------|-----------|
|              | Units/Reel<br>/ | Reels/Inner Box<br>/ | Units/Inner Box<br>/ | Inner Boxes/Outer Box<br>/ | Units/Outer Box<br>/ | Reel                              | Inner Box | Outer Box |