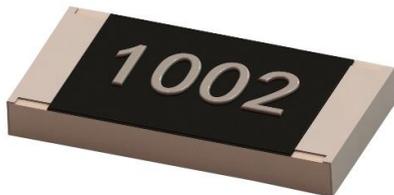


# Anti-Sulfurated Thick Film Chip Resistor – BCTS Series



## Features

- RoHS, Halogen Free and REACH Compliance
- High component and equipment reliability
- PCB space saving
- None forbidden-materials used in products/production

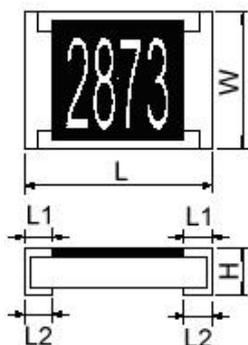
## Applications

- All general purpose application

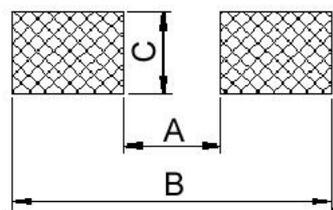
## Product Identification

| B     | CTS             | 00           | 0805            | -            | 10R2               | F         | TP                       |
|-------|-----------------|--------------|-----------------|--------------|--------------------|-----------|--------------------------|
| Grade | Product Series  | Control Code | Dimensions Code | Special Code | Nominal Resistance | Tolerance | Taping Code              |
|       | Anti-Sulfurated |              | 0201            |              | 10R2=10.2Ω         | B=±0.1%   | TH (1000Pcs) :0201~0402  |
|       | Thick film      |              | 0402            |              | 1002=10KΩ          | D=±0.5%   | TP (5000Pcs) : 0603~1210 |
|       | Chip Resistors  |              | 0603            |              |                    | F=±1%     | TE (4000Pcs) : 2010~2512 |
|       |                 |              | 0805            |              |                    | J=±5%     |                          |
|       |                 |              | 1206            |              |                    |           |                          |
|       |                 |              | 1210            |              |                    |           |                          |
|       |                 |              | 2010            |              |                    |           |                          |
|       |                 |              | 2512            |              |                    |           |                          |

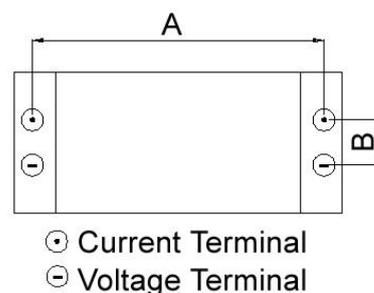
## Configuration and Dimensions



## Recommended Pattern



## Measurement Point



Dimensions in mm

| Type       | Configuration and Dimensions |           |           |           |           | Recommended Pattern |     |     | Measurement Point |           |
|------------|------------------------------|-----------|-----------|-----------|-----------|---------------------|-----|-----|-------------------|-----------|
|            | L                            | W         | H         | L1        | L2        | A                   | B   | C   | A                 | B         |
| BCTS000201 | 0.60±0.03                    | 0.30±0.03 | 0.23±0.03 | 0.10±0.05 | 0.15±0.05 | 0.3                 | 1.0 | 0.4 | 0.44±0.05         | 0.22±0.05 |
| BCTS000402 | 1.00±0.10                    | 0.50±0.05 | 0.30±0.05 | 0.20±0.10 | 0.25±0.10 | 0.5                 | 1.5 | 0.6 | 0.80±0.05         | 0.24±0.05 |
| BCTS000603 | 1.60±0.10                    | 0.80±0.10 | 0.45±0.10 | 0.30±0.15 | 0.30±0.15 | 0.8                 | 2.1 | 0.9 | 1.35±0.05         | 0.35±0.05 |
| BCTS000805 | 2.00±0.10                    | 1.25±0.10 | 0.50±0.10 | 0.35±0.20 | 0.35±0.15 | 1.2                 | 3.0 | 1.3 | 1.80±0.05         | 0.35±0.05 |
| BCTS001206 | 3.05±0.10                    | 1.55±0.10 | 0.50±0.10 | 0.45±0.20 | 0.35±0.15 | 2.2                 | 4.2 | 1.6 | 2.90±0.05         | 0.35±0.05 |
| BCTS001210 | 3.05±0.10                    | 2.55±0.10 | 0.55±0.10 | 0.50±0.20 | 0.50±0.20 | 2.2                 | 4.2 | 2.8 | 2.90±0.05         | 0.35±0.05 |
| BCTS002010 | 5.00±0.20                    | 2.50±0.20 | 0.55±0.10 | 0.60±0.20 | 0.60±0.20 | 3.5                 | 6.1 | 2.8 | 4.50±0.05         | 1.15±0.05 |
| BCTS002512 | 6.30±0.20                    | 3.20±0.20 | 0.55±0.10 | 0.60±0.20 | 0.60±0.20 | 3.8                 | 8.0 | 3.5 | 5.90±0.05         | 1.60±0.05 |

# Anti-Sulfurated Thick Film Chip Resistor – BCTS Series

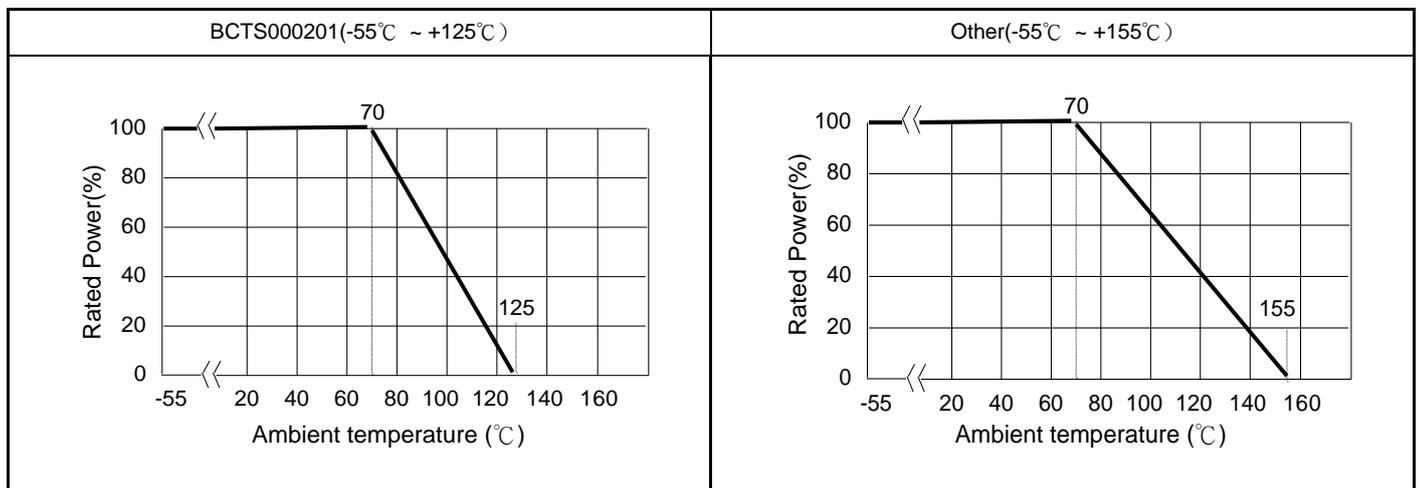
## Electrical Characteristics Resistance Range:

| Type                        | Rated Power at 70°C (W) | Working Voltage (V) Max. | Overload Voltage (V) Max. | T.C.R (ppm/°C)                       | Resistance Range (Ω) |              |              |              | JUMPER Rated Current (A) |     | JUMPER Resistance Value (mΩ) Max. |     |
|-----------------------------|-------------------------|--------------------------|---------------------------|--------------------------------------|----------------------|--------------|--------------|--------------|--------------------------|-----|-----------------------------------|-----|
|                             |                         |                          |                           |                                      | ±0.1%                | ±0.5%        | ±1%          | ±5%          | 105°C                    |     | 105°C                             |     |
|                             |                         |                          |                           |                                      | E-24、E-96            | E-24、E-96    | E-24、E-96    | E-24         | ±1%                      | ±5% | ±1%                               | ±5% |
|                             |                         |                          |                           |                                      |                      |              |              |              |                          |     |                                   |     |
| BCTS000201                  | 1/20                    | 25                       | 50                        | -200+400                             |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   | 0.5                      | 0.5 | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 10M |                          |     |                                   |     |
| BCTS000402                  | 1/16                    | 50                       | 100                       | ±100                                 |                      | 10 ≤ R ≤ 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 1.5                      | 1   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | -            | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| BCTS000603                  | 1/10                    | 75                       | 150                       | ±100                                 | 100 ≤ R ≤ 1M         | 10 ≤ R ≤ 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 2                        | 1   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| BCTS000805                  | 1/8                     | 150                      | 300                       | ±100                                 |                      | 10 ≤ R ≤ 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 2.5                      | 2   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| BCTS001206                  | 1/4                     | 200                      | 400                       | ±100                                 |                      | 10 ≤ R ≤ 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 3.5                      | 2   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| BCTS001210                  | 1/2                     | 200                      | 400                       | ±100                                 |                      | 10 ≤ R ≤ 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 4                        | 2   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| BCTS002010                  | 3/4                     | 200                      | 400                       | ±100                                 |                      | 10 ≤ R < 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 5                        | 2   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| BCTS002512                  | 1                       | 200                      | 400                       | ±100                                 |                      | 10 ≤ R ≤ 1M  | 10 ≤ R ≤ 10M | 10 ≤ R ≤ 20M | 7                        | 2   | 50                                | 100 |
|                             |                         |                          |                           | ±200                                 |                      | 1 ≤ R < 10   | 1 ≤ R < 10   | 1 ≤ R < 10   |                          |     |                                   |     |
| Operating Temperature Range |                         |                          |                           | -55°C ~ +155°C (0201:-55°C ~ +125°C) |                      |              |              |              |                          |     |                                   |     |

Note: When ordering, please specify tolerance code. Tolerance: B=±0.1%, D=±0.5%, F=±1%, J=±5%

- Power Derating Curve: Operating Temperature Range: -55°C ~ +155°C or (0201:-55°C ~ +125°C)

For resistors operated in ambient temperatures 70°C, power rating shall be derated in accordance with the curve below:



- Rating Current: The resistor shall have a DC continuous working current or a rms. AC continuous working current at commercial-line frequency and wave form corresponding to the power rating, as determined from the following:

Remark: E: Rated voltage.(V), P: Rating Power.(W), R: Nominal Resistance.(Ω)

$$E = \sqrt{R \times P}$$

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