TECH PUBLIC
台舟电子

# BTC Series
# GDT Protection Component

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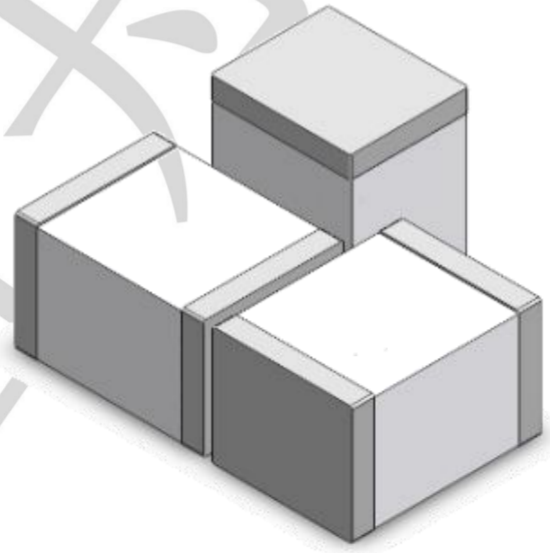
## Features

- High insulation resistance
- 4KV 10/700μs maximum surge rating in accordance with ITU-TK.21
- Ultra low capacitance(<1pF)
- Surface mounted gas arrester
- Size 4532(1812)
- 2.0KA /1KAsurge capability tested with 8/20μs pulse as defined by IEC 61000-4-5
- Meets MSL level 1
- Storage and operating temperature: -40 ~ +85℃

## Applications

- Communication equipment
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Telecom SLIC protection
- Broadband equipment
- ADSL equipment, includingADSL2+
- XDSL equipment
- Satellite and CATV equipment
- General telecom equipment



**4532(1812)**



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## Electrical Characteristics (TA=25°C unless otherwise specified)

| Part Number | DC Spark-over Voltage | Maximum Impulse Spark-over Voltage | Minimum Insulatio Resistance | Capacitance CO 0.5VDC | Impulse withstanding Voltage Capacity | Nominal Impulse Discharge Current |
|---|---|---|---|---|---|---|
| | @100V/S | @1KV/μs | 1 GΩ | @1MHz (pF) | @10/700μs ±5 times | @8/20μs ±5 times |
| BTC750N-TP | 75V± 30% | 600V | at 25V DC | ≤0.6pF | 4KV | 2.0KA |
| BTC900N-TP | 90V± 30% | 700V | at 50V DC | ≤0.6pF | 4KV | 2.0KA |
| BTC201N-TP | 200V± 30% | 750V | at 100V DC | ≤0.6pF | 4KV | 2.0KA |
| BTC231N-TP | 230V± 30% | 750V | at 100V DC | ≤0.6pF | 4KV | 2.0KA |
| BTC351N-TP | 350V± 30% | 900V | at 100V DC | ≤0.6pF | 4KV | 2.0KA |
| BTC401N-TP | 400V± 30% | 1000V | at 100V DC | ≤0.6pF | 4KV | 2.0KA |
| BTC601N-TP | 600V± 30% | 1200V | at 100V DC | ≤0.6pF | 4KV | 1.0KA |
| BTC801N-TP | 800V± 30% | 1600V | at 100V DC | ≤0.6pF | 4KV | 1.0KA |
| BTC102N-TP | 1000V± 30% | 1800V | at 100V DC | ≤0.6pF | 4KV | 1.0KA |



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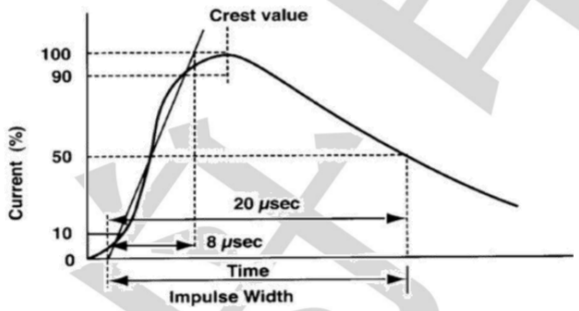
## Electrical Rating

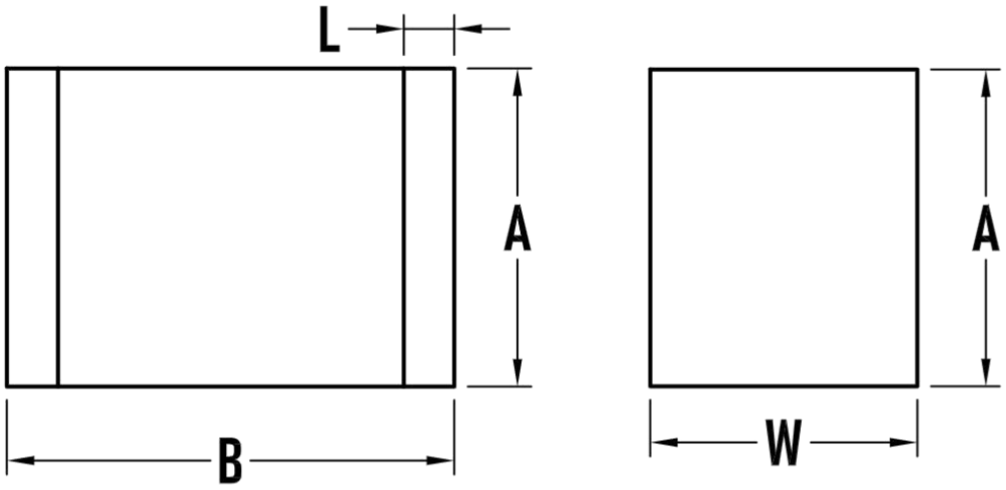
| Item | Test Condition /Description | Requirement |
|---|---|---|
| **DC Spark-over Voltage** | The voltage is measured with a slowly rate of rise dv / dt=100V/s | To meet The specified value |
| **Impulse Spark-over Voltage** | The maximum impulse spark-over voltage is measured with a rise time of dv / dt=100V//μs or 1KV/μs | |
| **Insulation Resistance** | Theresistanceofgastubeshallbemeasuredeachterminaleachotherterminal,please see above spec. | |
| **Capacitance** | Thecapacitanceofgastubeshallbemeasuredeachterminaltoeachother terminal.Test frequency:1MHz | |
| **NominalImpulse Discharge Current** | The maximum current applying a aveformof8/20μsthatcanbeapplied across the terminals of the gas tube. One hour after the test is completed, re-testing of the DC spark-over voltage does not exceed±40% of the nominal DC spark-over voltage. Dwell time between pulses is 3minutes.   | |

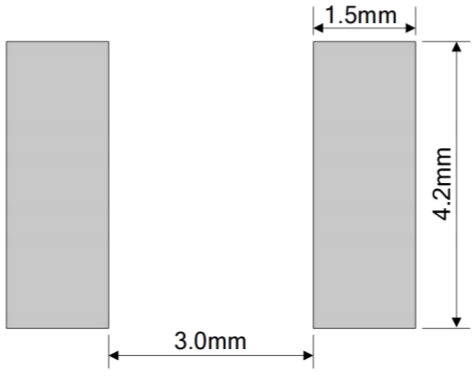
## Cautions and warnings

- Gas discharge tubes (GDT) must not be operated directly in power supply networks.
- Gas discharge tubes (GDT) may become hot in case of longer periods of current stress (danger ofburning).
- Gas discharge tubes (GDT) may be used only within their specified values. In the event of overload, the head contacts may fail or the component may be destroyed.
- Damaged Gas discharge tubes (GDT) must not be re-used.

## Package Outline & Dimensions(Unit:mm)

### 4532(1812)




| Dim. | Millimeters | | |
|---|---|---|---|
| | MIN. | NOW. | MAX. |
| A | 2.9 | 3.2 | 2.9 |
| B | 4.2 | 4.5 | 4.8 |
| W | 2.3 | 2.7 | 3.0 |
| L | 0.4 | 0.5 | 0.6 |

## Suggested Land Pattern (Unit:mm)