

308 Constitution Drive Menlo Park, CA 94025-1164 Phone: 800-227-4856

www.circuitprotection.com

# Gas Discharge Tube Miniature Two Electrode Series

**Overvoltage Protection Device** 

Raychem Circuit Protection Products

PRODUCT: GTCx26

DOCUMENT: SCD 25817

REV LETTER: D REV DATE: MAY 25, 2007

PAGE NO.: 1 OF 5

# **Specification Status: Released**

#### **GENERAL DESCRIPTION**

#### **BENEFITS**

- Helps provide overvoltage fault protection against high energy surges
- Suitable for sensitive equipment due to excellent impulse sparkover response
- Suitable for high-frequency applications
- · Highly reliable performance

#### **FEATURES**

- Crowbar device with low arc-voltage
- Low capacitance and insertion loss
- High accuracy spark-over voltages for high precision designs
- Tested per ITU K.12 recommendations
- · Non-radioactive materials

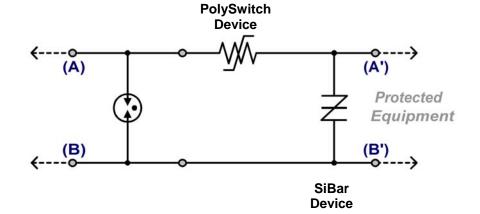
#### **APPLICATIONS**

- Telecommunications:
  - MDF modules, xDSL equipment, RF system protection
- Industrial Electronics and Commercial Electronics, such as
  - Power Supplies, Surge Protectors, Alarm systems

## **SYMBOL**

## TYPICAL APPLI CATION SCHEMATIC







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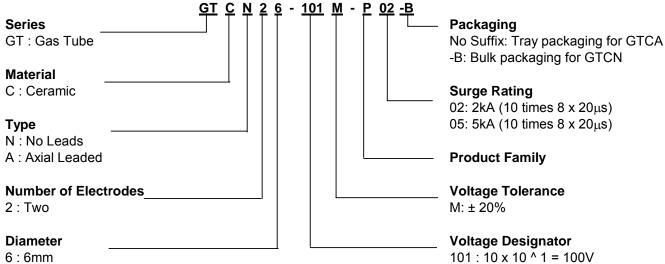
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### **PART NUMBERING**

#### **EXAMPLE:**

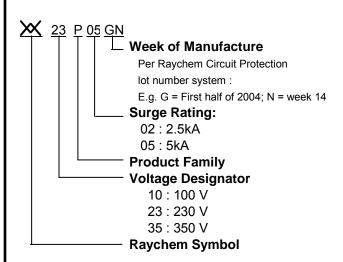


231 : 23 x 10 ^ 1 = 230V

351 : 35 x 10 ^ 1 = 350V

#### **DEVICE MARKING**

EXAMPLE: GTCA26-231M-P05





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# **GENERAL CHARACTERISTICS**

No Radioactive Material

Storage temperature: -40°C ... +90°C

Operating temperature: -40°C ... + 90°C

Body: Nickel Plated

Leads: Tin Plated



## **DEVICE RATINGS AND CHARACTERISTICS**

|                                    | DC<br>Sparkover<br>Voltage | Impulse Sp<br>Volta |            | Insulation<br>Resistance | Capacitance | DC Holdover<br>Voltage | Impulse Life       | Impulse Discharge<br>Current 8/20 µs |   | AC Discharge Current,<br>50 Hz |                                     |
|------------------------------------|----------------------------|---------------------|------------|--------------------------|-------------|------------------------|--------------------|--------------------------------------|---|--------------------------------|-------------------------------------|
| Part Number                        | @ 100V/s                   | @ 100V / μs         | @ 1kV / μs | @ 100V                   | @ 1MHz      | Per ITUK.12            | 10/1000 μs,<br>50A | Single<br>Hit                        | Repeat<br>10 times<br>(5 times -<br>each<br>polarity) | Single<br>Hit,<br>9 Cycles     | Repeat 10<br>times<br>(1s interval) |
| GTCN26-101M-P02<br>GTCA26-101M-P02 | 100V ± 20%                 | ≤ 500V              | ≤ 700V     | ≥ 10,000MΩ <sup>1</sup>  | ≤ 1.0pF     | ≤ 52V                  | 300 times          | 3kA                                  | 2.5kA   | 1                              | 2.5A                                |
| GTCN26-231M-P05<br>GTCA26-231M-P05 | 230V ± 20%                 | ≤ 500V              | ≤ 700V     | ≥ 10,000MΩ               | ≤ 1.0pF     | ≤ 135V                 | 300 times          | 10kA                                 | 5kA   | 20A                            | 5A                                  |
| GTCN26-351M-P05<br>GTCA26-351M-P05 | 350V ± 20%                 | ≤ 600V              | ≤ 800V     | ≥ 10,000MΩ               | ≤ 1.0pF     | ≤ 135V                 | 300 times          | 10kA                                 | 5kA   | 20A                            | 5A                                  |

Note 1. Insulation Resistance at 50 V<sub>DC</sub>.



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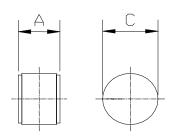
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# **DIMENSIONS**

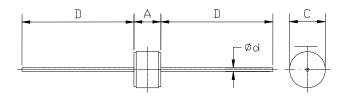
No Leads (GTCN26):



|      | Α    | \    | С    |      |  |  |
|------|------|------|------|------|--|--|
| MIN  |      | MAX  | MIN  | MAX  |  |  |
| mm:  | 4.0  | 4.3  | 5.8  | 6.2  |  |  |
| in*: | 0.16 | 0.17 | 0.23 | 0.24 |  |  |

\*Rounded off approximation

Axial Leads (GTCA26):



mm: in\*:

| F    | 4    | (    |      |      | Ød   |      |
|------|------|------|------|------|------|------|
| MIN  | MAX  | MIN  | MAX  | MIN  | MAX  | NOM  |
| 4.0  | 4.3  | 5.8  | 6.2  | 23.0 | 27.0 | 0.8  |
| 0.16 | 0.17 | 0.23 | 0.24 | 0.90 | 1.06 | 0.03 |

<sup>\*</sup> Rounded off approximation



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#### **PACKAGING**

| Packaging | Bulk*<br>( vacuum bags) | Tray** | Standard Box |  |
|-----------|-------------------------|--------|--------------|--|
| GTCN26    | 200                     |        | 1,000***     |  |
| GTCA26    |                         | 100    | 1,000****    |  |

<sup>\*</sup> Bulk packaging only for GTCN26

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<sup>\*\*</sup>Tray packaging only for GTCA26

<sup>\*\*\* 5</sup> bags

<sup>\*\*\*\* 10</sup> trays