Raychem
Overvoltage Devices

www.tycopowercomponents.com

Gas Discharge Tube
GTCx26
Miniature Two Electrode Series

Document: SCD 25817
Status: Released
Rev. C Date: September 3, 2004

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

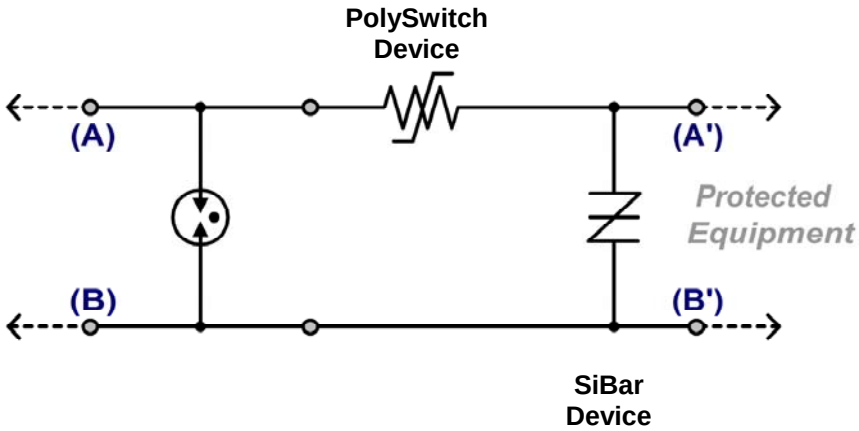
- Crowbar device with low arc-voltage
- Low capacitance and insertion loss
- High accuracy spark-over voltages for high precision designs
- Tested per ITU K.12 recommendations
- Non-radioactive materials

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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PART NUMBERING

EXAMPLE:

GT C N 2 6 - 101 M - P 02 -B

Series
GT : Gas Tube

Material
C : Ceramic

Type
N : No Leads
A : Axial Leaded

Number of Electrodes
2 : Two

Diameter
6 : 6mm

Packaging
No Suffix: Tray packaging for GTCA
-B: Bulk packaging for GTCN

Surge Rating
02: 2kA (10 times 8 x 20μs)
05: 5kA (10 times 8 x 20μs)

Product Family

Voltage Tolerance
M: ± 20%

Voltage Designator
101 : 10 x 10 ^ 1 = 100V
231 : 23 x 10 ^ 1 = 230V
351 : 35 x 10 ^ 1 = 350V

DEVICE MARKING

EXAMPLE : GTCA26-231M-P05

XX 23 P 05 GN

Week of Manufacture
Per Raychem Circuit Protection
lot number system :
E.g. G = First half of 2004; N = week 14

Surge Rating:
02 : 2.5kA
05 : 5kA

Product Family

Voltage Designator
10 : 100 V
23 : 230 V
35 : 350 V

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tyco Electronics

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

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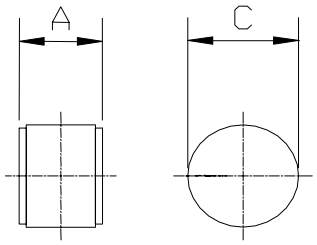
DIMENSIONS

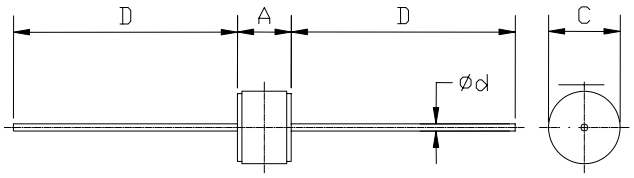
No Leads (GTCN26):



	A		C	
	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):



	A		C		D		Ød
	MIN	MAX	MIN	MAX	MIN	MAX	NOM
mm:	4.0	4.3	5.8	6.2	23.0	27.0	0.8
in*:	0.16	0.17	0.23	0.24	0.90	1.06	0.03

* Rounded off approximation

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PACKAGING

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

*** Bulk packaging only for GTCN26**
****Tray packaging only for GTCA26**
***** 5 bags**
****** 10 trays**