

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: GTCR38-351M-P20
Manufacturer: Littelfuse Inc.
Package: Bag
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/littelfuse-inc/gtcr38-351m-p20.html>

Request a Quote:

[Submit RFQ for this part](#)



Scan for product page

Contact Information

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Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

Gas Discharge Tube Three Electrode Series Overvoltage Protection Device

Raychem Circuit Protection Products

PRODUCT: GTCx38-xxxx-Pxx

DOCUMENT: SCD 25816
REV LETTER: F
REV DATE: JULY 7, 2008
PAGE NO.: 1 OF 6

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
- Optional Fail-Short mechanism
- Non-radioactive materials

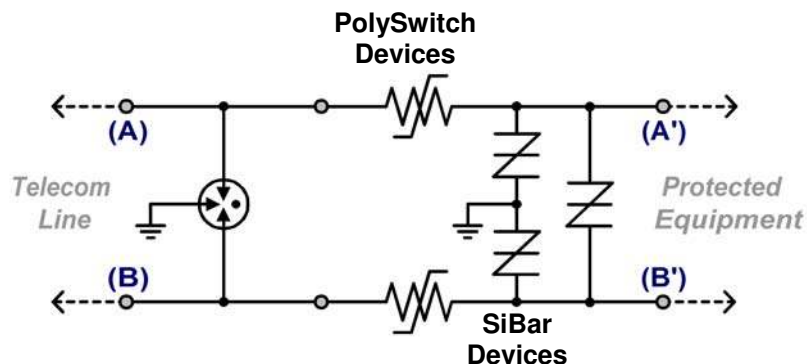
APPLICATIONS

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

SYMBOL



TYPICAL APPLICATION SCHEMATIC



Gas Discharge Tube Three Electrode Series Overvoltage Protection Device

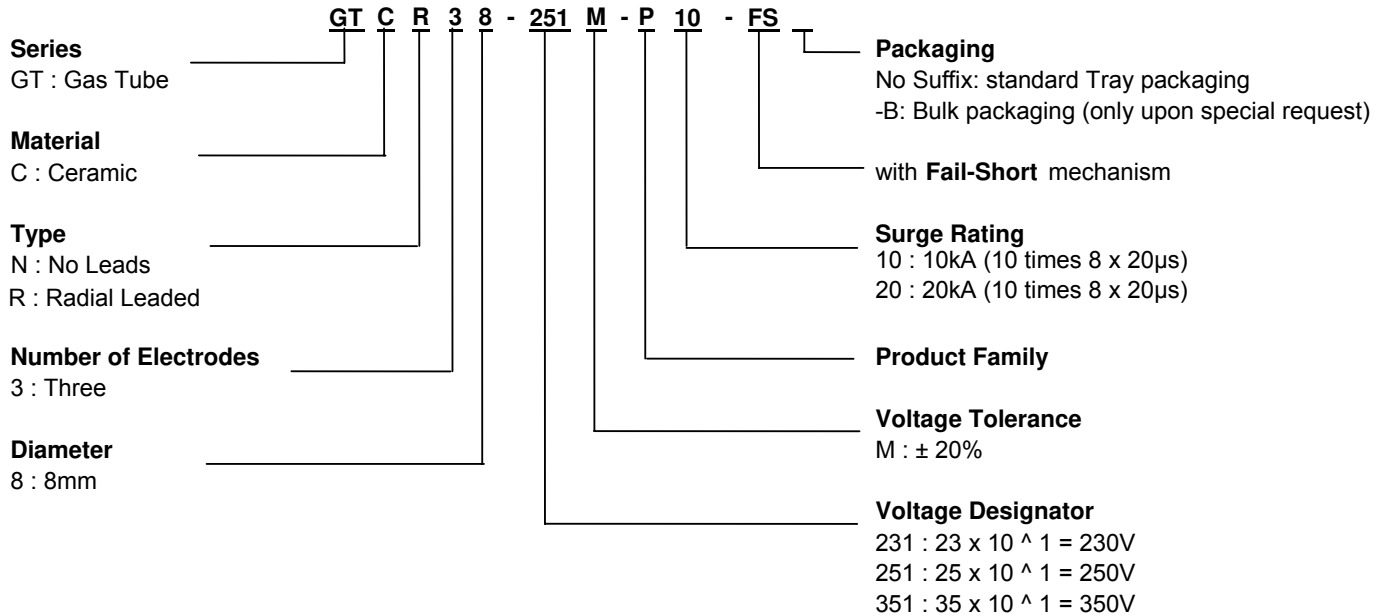
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DOCUMENT: SCD 25816
REV LETTER: F
REV DATE: JULY 7, 2008
PAGE NO.: 2 OF 6

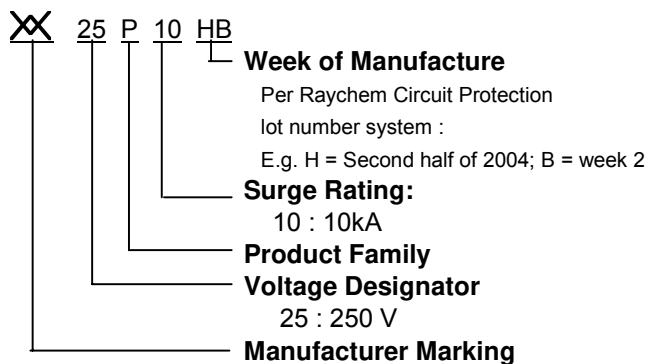
PART NUMBERING

EXAMPLE:



DEVICE MARKING

EXAMPLE : GTCR38-251M-P10-FS



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PAGE NO.: 3 OF 6

GENERAL CHARACTERISTICS

No Radioactive Material

Storage temperature:

Devices without Fail-Short Mechanism: -40°C ... +90°C

Devices with Fail-Short Mechanism: -20°C ... +65°C

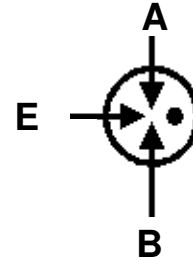
Operating temperature:

Devices without Fail-Short Mechanism: -40°C ... +90°C

Devices with Fail-Short Mechanism: -20°C ... +65°C

Body: Nickel Plated

Leads: Tin Plated



MATERIALS INFORMATION

RoHS Compliant

ELV Compliant

Directive 2002/95/EC
Compliant

Directive 2000/53/EC
Compliant

DEVICE RATINGS AND CHARACTERISTICS

	DC Sparkover Voltage (A-E) (B-E)	Impulse Sparkover Voltage (A-E) (B-E)	Insulation Resistance	Capacitance	DC Holdover Voltage	Impulse Life (A + B - E)	Impulse Discharge Current 8/20µs (A + B - E)	AC Discharge Current, 50Hz (A + B - E)
Part Number	@ 100V/s	@ 1kV/µs	@ 100V _{DC}	@ 1MHz	Per ITU K.12	10/1000µs, 200A	Repeat 10 times (5 times each polarity)	Repeat 5 times (1s interval)
GTCN38-231M-P10	Part has been replaced, please use GTCN38-231M-Q10							
GTCN38-231M-P10-FS	Part has been replaced, please use GTCN38-231M-Q10-FS							
GTCR38-231M-P10	Part has been replaced, please use GTCR38-231M-Q10							
GTCR38-231M-P10-FS	184 - 280V	≤ 700V	≥ 10,000MΩ	≤ 3.0pF	≤ 135V	300 times	10kA	10A
GTCN38-251M-P10	Part has been replaced, please use GTCN38-251M-Q10							
GTCN38-251M-P10-FS	Part has been replaced, please use GTCN38-251M-Q10-FS							
GTCR38-251M-P10	Part has been replaced, please use GTCR38-251M-Q10							
GTCR38-251M-P10-FS	200 - 300V	≤ 700V	≥ 10,000MΩ	≤ 3.0pF	≤ 135V	300 times	10kA	10A
GTCN38-351M-P20								
GTCN38-351M-P20-FS								
GTCR38-351M-P20								
GTCR38-351M-P20-FS	280 - 420V	≤ 900V	≥ 10,000MΩ	≤ 3.0pF	≤ 80V	300 times	20kA	20A

Gas Discharge Tube Three Electrode Series Overvoltage Protection Device

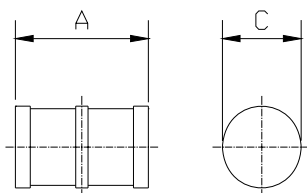
Raychem Circuit Protection Products

PRODUCT: GTCx38-xxxx-Pxx

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REV DATE: JULY 7, 2008
PAGE NO.: 4 OF 6

DIMENSIONS

No Leads, no Fail-Short mechanism
(GTCN38-351M-P20)

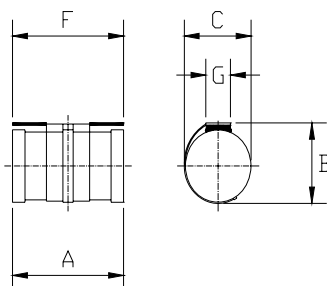


mm:
in*:

A		C	
MIN	MAX	MIN	MAX
9.7	10.3	7.8	8.2
0.38	0.41	0.31	0.32

* Rounded off approximation

No Leads, with Fail-Short mechanism
(GTCN38-351M-P20-FS)



mm:
in*:

A		B		C		F		G	
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
9.7	10.3	--	9.5	--	8.2	--	10.5	--	3.0
0.38	0.41	--	0.37	--	0.32	--	0.41	--	0.12

* Rounded off approximation

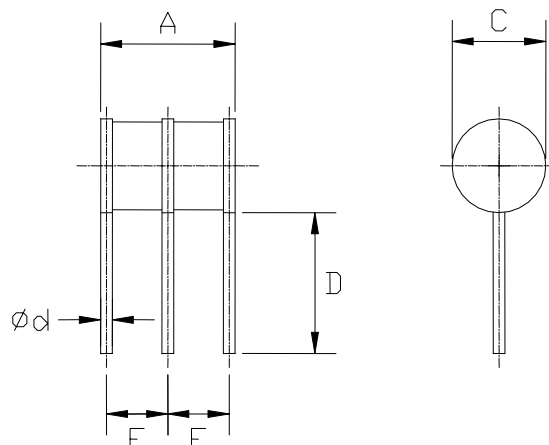
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DOCUMENT: SCD 25816
REV LETTER: F
REV DATE: JULY 7, 2008
PAGE NO.: 5 OF 6

Radial Leads, no Fail-Short mechanism
(GTCR38-351M-P20)

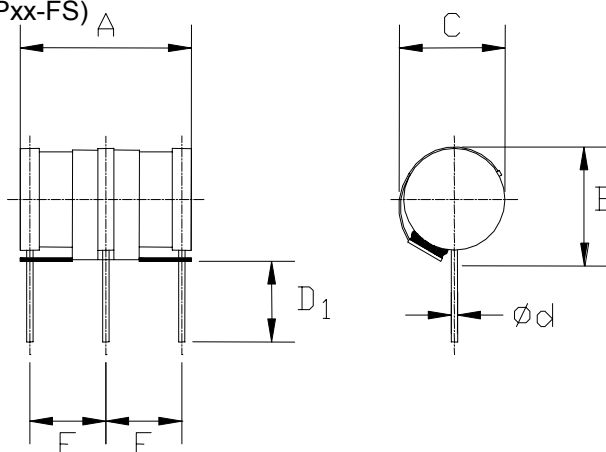


mm:
in*:

A		C		D		E		Ød
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	NOM
9.7	10.3	7.8	8.2	6.5	7.5	4.1	4.7	1.0
0.38	0.41	0.31	0.32	0.26	0.30	0.16	0.19	0.04

* Rounded off approximation

Radial Leads, with Fail-Short mechanism
(GTCR38-xxxx-Pxx-FS)



mm:
in*:

A		B		C		D1		E		Ød
MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	NOM
9.7	10.3	--	9.5	--	8.2	6.0	--	4.1	4.7	1.0
0.38	0.41	--	0.37	--	0.32	0.24	--	0.16	0.19	0.04

- Rounded off approximation

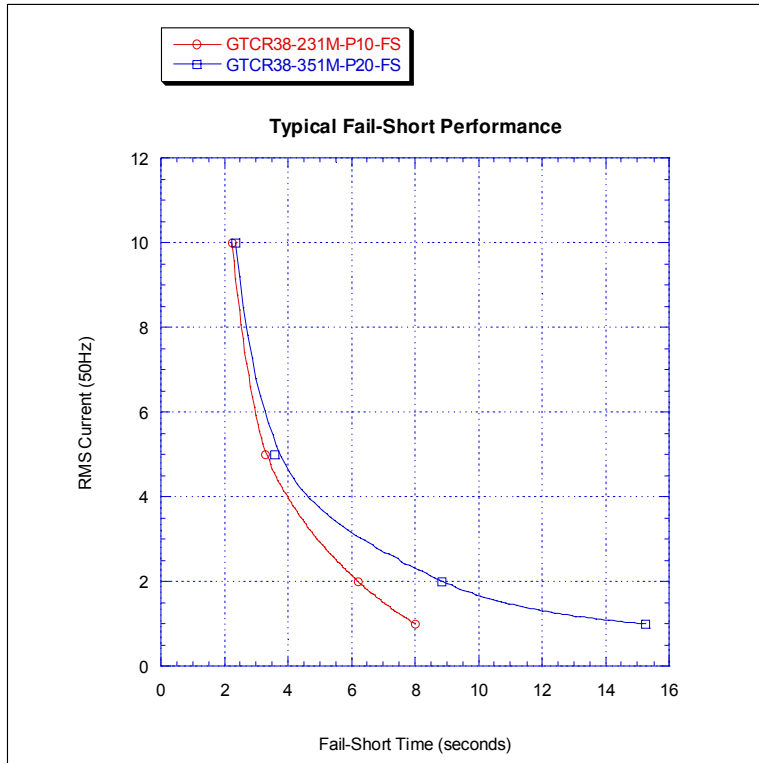
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PAGE NO.: 6 OF 6

FAIL-SHORT MECHANISM RESPONSE TIME (Graph represents typical values)



Note: Both electrodes simultaneously powered, each with the AC current value in the graph

PACKAGING

Packaging	Bulk* (vacuum bags)	Tray	Standard Box
Quantity	200	100	1,000**

* Standard packaging is in trays.
Bulk packaging is only available upon request.

** 5 bags or 10 trays

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