



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Gas Discharge Tubes GTCX38-XXXM-R10 Series

Littelfuse Circuit Protection 8mm 3Pole GDTs (ceramic gas discharge tubes), are commonly used to help protect sensitive telecom equipment such as communication lines, signal lines and data transmission lines from damage caused by transient surge voltages that typically result from lightning strikes and equipment switching operations.

Littelfuse Circuit Protection GDTs offer a high level of surge protection, low capacitance and a broad array of breakover voltage levels, making them suitable for applications such as MDF (Main Distribution Frame) modules, high data-rate telecom applications (e.g. ADSL, VDSL), and surge protection on power lines. Littelfuse Circuit Protection GDTs can help equipment meet the most stringent regulatory standards.



Benefits:

- Helps provide overvoltage fault protection against high energy surges
- Suitable for high-frequency applications

Features:

- 3Pole, 8mm devices
- Broad voltage range from 75V-600V
- Various form factors: surface-mount, leaded, no leads
- Optional fail-short mechanism on some devices
- Low capacitance and insertion loss
- Crowbar overvoltage protection
- UL 497B recognized
- RoHS compliant
- Devices tested per ITU K.12 recommendations
- Non-radioactive materials

Applications:

- Telecommunications
 - MDF modules, xDSL equipment, RF system protection, antenna, base station
- Industrial and consumer electronics, such as
 - Surge protectors
 - Alarm system

GTCX38-XXXM-R10 Series

Device Voltage Ratings and Part Marking

| Part Number | DC Sparkover @100V/s ±20% Tolerance (V) | Impulse Sparkover | | DC Holdover Voltage Per ITU K.12 (<150ms) (V) | On-State Voltage Nominal (@ 1A) (V) |
|-----------------|--|--------------------|---------------------|--|--|
| | | @100 V μ s (V) | @1000 V μ s (V) | | |
| GTCX38-750M-R10 | 75 | 450 | 550 | <52 | 20 |
| GTCX38-900M-R10 | 90 | 450 | 550 | <52 | 20 |
| GTCX38-141M-R10 | 140 | 500 | 600 | <80 | 20 |
| GTCX38-151M-R10 | 150 | 500 | 600 | <80 | 20 |
| GTCX38-201M-R10 | 200 | 600 | 700 | <135 | 20 |
| GTCX38-231M-R10 | 230 | 600 | 700 | <135 | 20 |
| GTCX38-251M-R10 | 250 | 600 | 700 | <135 | 20 |
| GTCX38-261M-R10 | 260 | 700 | 800 | <135 | 20 |
| GTCX38-301M-R10 | 300 | 800 | 900 | <150 | 20 |
| GTCX38-351M-R10 | 350 | 900 | 1000 | <150 | 20 |
| GTCX38-401M-R10 | 400 | 900 | 1000 | <150 | 20 |
| GTCX38-421M-R10 | 420 | 900 | 1000 | <150 | 20 |
| GTCX38-471M-R10 | 470 | 1050 | 1150 | <150 | 20 |
| GTCX38-501M-R10 | 500 | 1100 | 1200 | <150 | 20 |
| GTCX38-551M-R10 | 550 | 1300 | 1400 | <150 | 20 |
| GTCX38-601M-R10 | 600 | 1300 | 1400 | <150 | 20 |

Device Surge Rating, Capacitance, Insulation Resistance, UL

| Part Number | Impulse Discharge Current | Impulse Life | AC Discharge Current (1sec duration; 10 hits) | Capacitance | Insulation Resistance | UL Rating |
|-----------------|---------------------------|-----------------------------|---|-------------|-----------------------|--------------------|
| | 8x20 μ s 10 hits | 10x1000 μ s 300 hits | @50 Hz | @1Mhz | @100V* | UL497B #E179610 |
| GTCX38-XXXM-R10 | 10kA | 200A | 10Arms | <1pF | 10,000 (M Ω) | All Devices |

* Devices <=150V measured @ 50V.
Devices >= 500V measured @ 250V

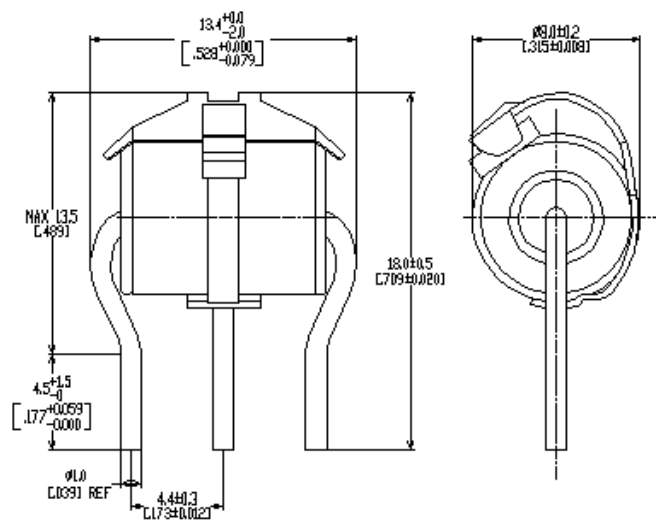
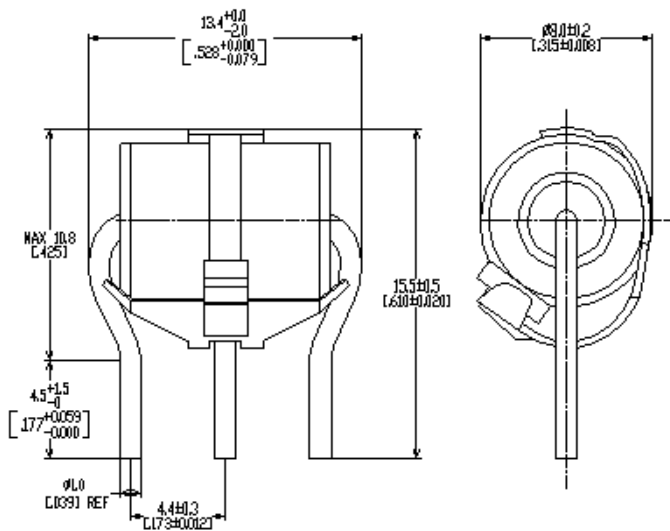
GTCX38-XXXM-R10 Series

Product Dimensions

DIMENSIONS = MILLIMETERS [INCHES]

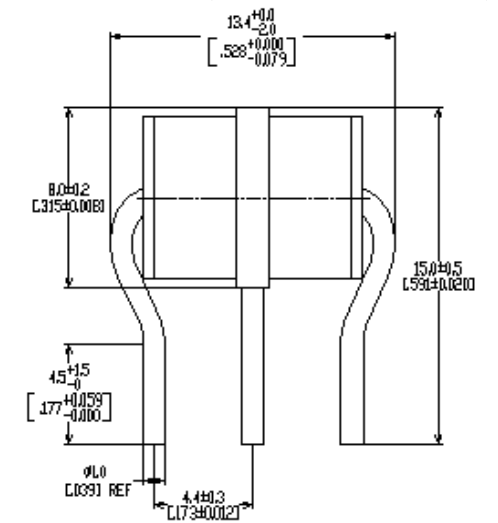
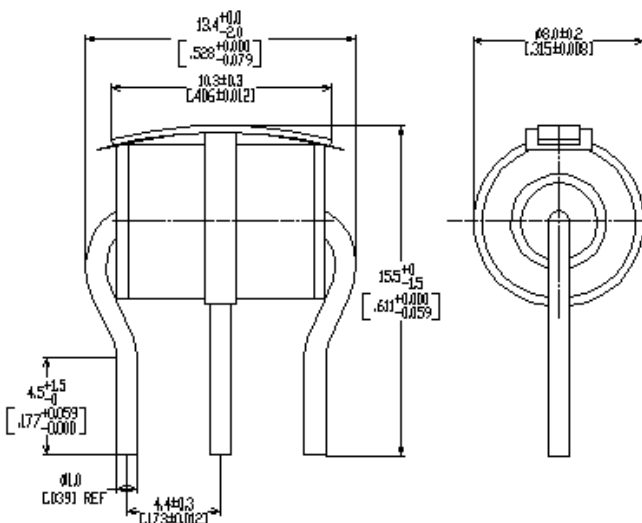
Axial Leaded with- FS (GTCA38-XXXM-R10-FS2)

Axial Leaded with-FS (GTCA38-XXXM-R10-FS)



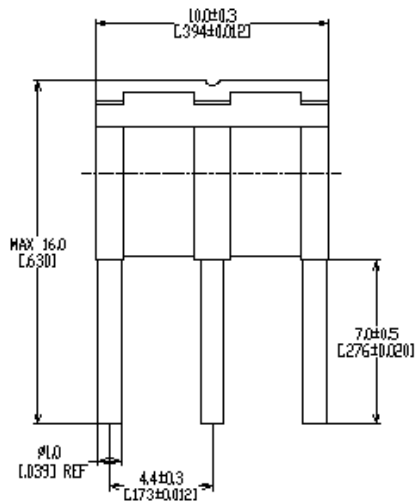
Axial Leaded with- FT (GTCA38-XXXM-R10-FT)

Axial Leaded (GTCA38-XXXM-R10)

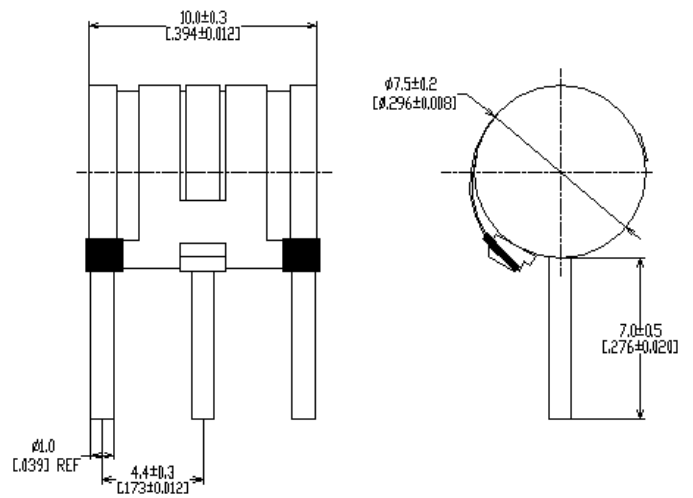


GTCX38-XXXM-R10 Series

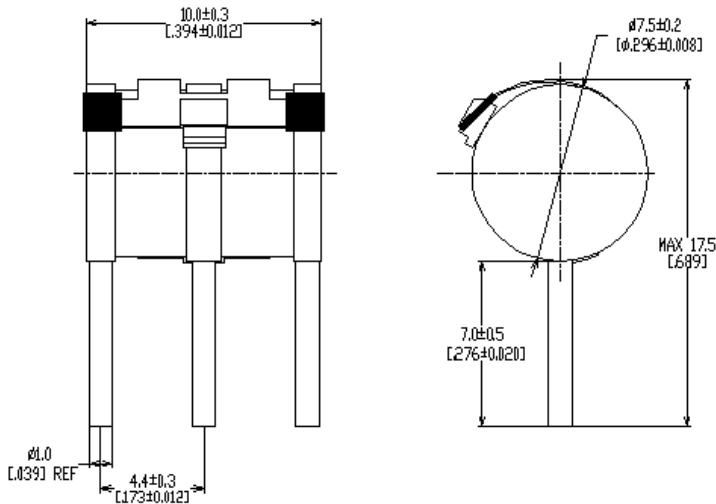
Radial Leaded with- FT (GTCR38-XXXM-R10-FT)



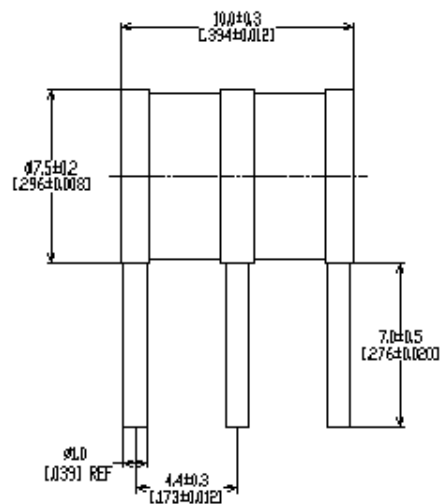
Radial Leaded with-FS (GTCR38-XXXM-R10-FS2)



Radial Leaded with-FS (GTCR38-XXXM-R10-FS)



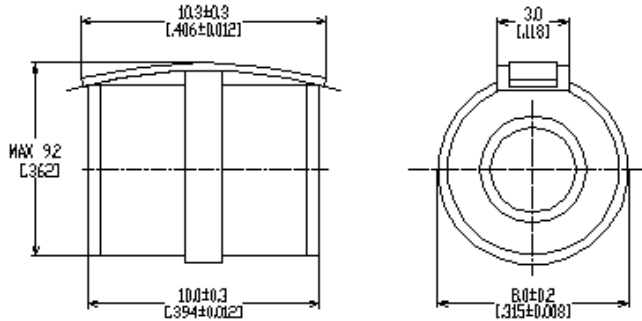
Radial Leaded (GTCR38-XXXM-R10)



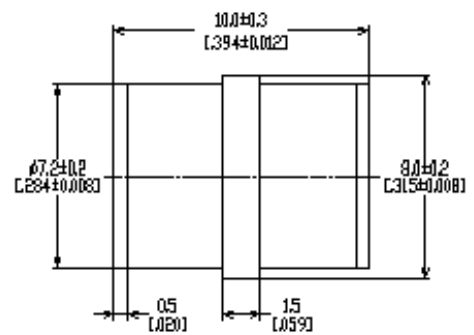
Gas Discharge Tubes

GTCX38-XXXM-R10 Series

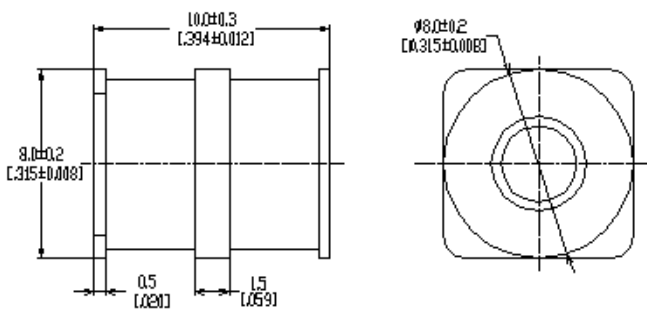
No Leads with-FT (GTCN38-XXXM-R10-FT)



No Leads (GTCN38-XXXM-R10)

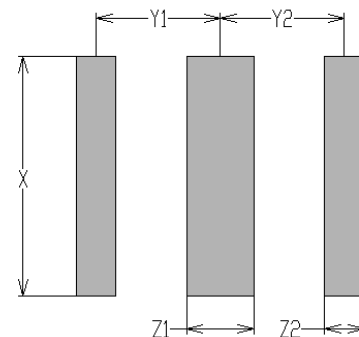


Surface-mount (GTCS38-XXXM-R10)



Pad Layout – Surface-mount Devices (GTCS38-XXXM-R10)

| | X | Y1 | Y2 | Z1 | Z2 |
|------|---------|---------|---------|---------|---------|
| | NOM | NOM | NOM | NOM | NOM |
| mm: | 9.0 | 4.65 | 4.65 | 2.5 | 1.5 |
| in*: | (0.354) | (0.183) | (0.183) | (0.098) | (0.059) |



GTCX38-XXXM-R10 Series

General Characteristics

No Radioactive Material

Storage Temperature: -40°C to +90°C

Operating Temperature: -40°C to +90°C

Body: Nickel Plated

Leads: Surface-mount, Radial and Axial Devices: Tin Plated

Devices with no leads: Nickel Plated

Soldering Notes: Devices with no leads: non-solderable; suitable for insertion into a magazine clip

Materials Information

RoHS Compliant

Directive 2002/95/EC
Compliant

ELV Compliant

Directive 2000/53/EC
Compliant

Packaging Information

Part Description

No Leaded: GTCN38-XXXM-R10(-FT)

With Leads: GTCA38-XXXM-R10(-FT/-FS(2))
GTCR38-XXXM-R10(-FT/-FS(2))

Surface-mount: GTCS38-XXXM-R10(-FT)

Surface-mount (T&R): GTCS38-XXXM-R10-2

Tray / Reel

100pcs (Tray)

100pcs (Tray)

100pcs (Tray)

500pcs (Reel)

Standard Package

1,000pcs

1,000pcs

1,000pcs

3,000pcs

Part Numbering System

Example Part Number: GTCX38-351M-R10-FT/FS/ FS2

GT = Gas Tube

C = Ceramic

X = Lead Configuration: **N**= No leads; **A**= Axial Leads; **S**= Surface-mount; **T**= T Configuration Leads; **R**= Radial Leads

3 = 3 Electrode device

8 = 8mm Diameter

351 = DC Spark Over Voltage of 350V (at 100V/s)

M = Tolerance of 20% on DC Spark Over Voltage

R = Product Family Designator

10 = Surge rating: 8x20µs 10kA 10 times

FT/FS/FS2 = With Fail-Short mechanism (FT=plastic fail short mechanism on top; FS=solder pellet fail short mechanism on top; FS2=solder pellet fail short mechanism on bottom)

GTCX38-XXXM-R10 Series**Part Marking Reference****Example Part Marking: ✕ 35 R10 GN**

| | |
|-------|---|
| ✕ = | Manufacture Mark |
| 35 = | Voltage Designator (35 = 350V) |
| R10 = | Product Family Designator + Surge Current 10kA (8x20µs 10 hits) |
| GN = | Year and Week of Manufacture |

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