

TE Circuit Protection 3mm 2Pole SMD type 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.

TE Circuit Protection 3mm SMD type GDTs offer excellent surge protection characteristics, low capacitance and a broad array of breakover voltage levels, making them suitable for applications such as high data-rate telecom communication network protection (e.g. ADSL, VDSL).



Benefits:

- Compact, small form factor suitable for efficient assembly
- Suitable for high-frequency applications

Features:

- 2Poles, 3mm devices
- Broad voltage range from 75V-400V
- Form factor: surface mount
- Low capacitance and insertion loss
- Referring to ITUT K.20 and ITUT K.21
- UL 497B recognized
- RoHS compliant
- Devices tested per ITU K.12 recommendations
- Non-radioactive materials

Applications:

- Telecommunications, RF system protection, CATV Modem, Hub protection, Security Systems, Data acquisition

GTCS23-XXM-R01-2 Series

Device Voltage Ratings

Part Number	DC Sparkover	Impulse Sparkover Voltage
	@100V/s ±20% Tolerance (V)	@1000 V/μs (V)
GTCS23-750M-R01-2*	75	600
GTCS23-900M-R01-2	90	600
GTCS23-141M-R01-2	140	600
GTCS23-151M-R01-2	150	600
GTCS23-201M-R01-2	200	700
GTCS23-231M-R01-2	230	700
GTCS23-301M-R01-2	300	900
GTCS23-351M-R01-2	350	1000
GTCS23-401M-R01-2	400	1000

*DCSO 60-105

Part Marking : Not Applicable

Device Surge Rating, Capacitance, Insulation Resistance, UL

Part Number	Insulation Resistance	Capacitance	Impulse Discharge Current 8/20μs		Impulse Withstanding Voltage 10/700μs	UL Rating
	@100V _{DC} *	@1Mhz	10 hits (5hits each polarity)	300 hits (150hits each polarity)	10 hits (5 times each polarity)	UL497B #E179610
GTCS23-xxxM-R01-2	≥ 1,000 (MΩ)	<0.5pF	1kA	100A	4kV	All Devices

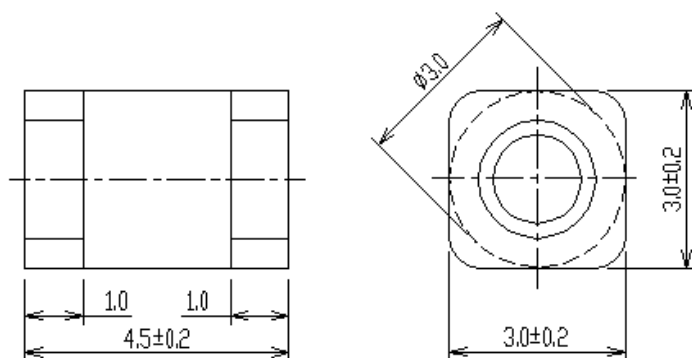
* Devices ≤150V measured @ 50Vdc

GTCS23-XXM-R01-2 Series

Product Dimensions

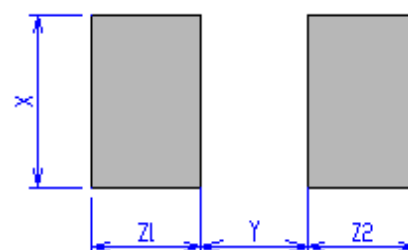
DIMENSIONS = MILLIMETERS [INCHES]

Surface-mount (GTCS23-XXM-R01-2)



Pad Layout – Surface-mount Devices (GTCS23-XXM-R01-2)

	X	Y	Z1	Z2
	NOM	NOM	NOM	Nom
mm:	3.0	2.0	2.0	2.0
in*:	(0.118)	(0.079)	(0.079)	(0.079)



General Characteristics

No Radioactive Material

Storage Temperature: -40°C to +90°C

Operating Temperature: -40°C to +90°C

Electrode: Tin Plated

Materials Information

ROHS Compliant

Directive 2002/95/EC
Compliant

ELV Compliant

Directive 2000/53/EC
Compliant

Pb-Free



Halogen Free*



GTCS23-XXXM-R01-2 Series

Packaging Information

Part Description	Reel	Standard Package
Surface-mount: GTCS23-XXXM-R01-2	2,000pcs (Reel)	16,000pcs

Part Numbering System

Example Part Number: GTCS23-351M-R01-2

GT =	Gas Tube
C =	Ceramic
S =	Lead Configuration: S= Surface-mount
2 =	2 Electrode device
3 =	3mm Diameter
351 =	DC Spark Over Voltage of 350V (at 100V/s)
M =	Tolerance of 20% on DC Spark Over Voltage
R =	Product Family Designator
01 =	Surge rating: 8x20 μ s 1kA 10 times
-2 =	Tape and Reel Packaging



308 Constitution Drive, MS R21/2A
Menlo Park, CA USA 94025-1164

Tel (800) 227-7040
(650) 361-6900
Fax (650) 361-2508

www.circuitprotection.com
www.circuitprotection.com.hk (Chinese)
www.circuitprotection.jp (Japanese)

TE Connectivity, TE Connectivity (Logo) and TE (Logo) are trademarks.

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Tyco Electronics Corporation and/or its Affiliates in the TE Connectivity Ltd. family of companies ("TE") reserves the right to change or update, without notice, any information contained in this publication; to change, without notice, the design, construction, processing, or specification of any product; and to discontinue or limit production or distribution of any product. This publication supersedes and replaces all information previously supplied. Without expressed or written consent by an officer of TE, TE does not authorize the use of any of its products as components in nuclear facility applications, aerospace, or in critical life support devices or systems. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. TE only obligations are those in the TE Standard Terms and Conditions of Sale and in no case will TE be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of its products.