

TWO ELECTRODE MINI SURGE ARRESTERS

CG5 Series



DESCRIPTION

SRC Devices two electrode mini CG5 Comgaps are gas filled, non-radioactive surge protectors. These devices are physically smaller than the standard CG/CG2 series reducing the space required to provide high performance circuit protection. The CG5 series can be supplied with or without leads. These components are used in a variety of different applications, including telecom and CATV communication lines. The small CG5 gas tubes function as switches which dissipate a minimum amount of energy and therefore handle currents that far surpass other types of transient voltage protection.

FEATURES

- Non-radioactive
- Rugged ceramic-metal construction
- Low capacitance (<1pF)
- Available with or without leads
- Available in tape-and-reel packaging

APPLICATIONS

- CATV equipment
- Test equipment
- Data and Telecom lines
- Instrumentation circuits

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Units
DC Breakdown Voltage	72	90	113	V
	184	230	276	V
	280	350	420	V
Insulation Resistance	10 ¹⁰	-	-	Ω
Capacitance	-	-	1	pF
Operational Temperature	-40	-	+125	°C

(See detailed specifications for more information.)

SPECIFICATIONS

PARAMETERS	CONDITIONS	SYMBOL	CG5-90 CG5-90L			CG5-230 CG5-230L			CG5-350 CG5-350L			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
All characteristics at 25°C												
Device Specifications												
DC Breakdown	500V/s	V _{BD}	72	90	113	184	230	276	280	350	420	V
Impulse Breakdown	100V/μs	V _{BD}	-	-	500	-	-	500	-	-	600	V
	1kV/μs	V _{BD}	-	-	700	-	-	700	-	-	800	V
Insulation Resistance	50V	IR	10 ¹⁰	-	-	10 ¹⁰	-	-	10 ¹⁰	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V _{ARC}	-	25	-	-	25	-	-	25	-	V
Life Ratings⁽¹⁾												
Surge Life	100A (10/1000μs)	-	300	-	-	300	-	-	300	-	-	shots
Max Current Surge	5kA (8/20μs)	-	10	-	-	10	-	-	10	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	5	-	-	5	-	-	5	A

(1) End-of-Life limits are:

DC: 50% of minimum initial DC Breakdown Voltage limit to 150% of maximum initial DC Breakdown Voltage limit.

Impulse: less than 150% of initial impulse Breakdown Voltage limit.

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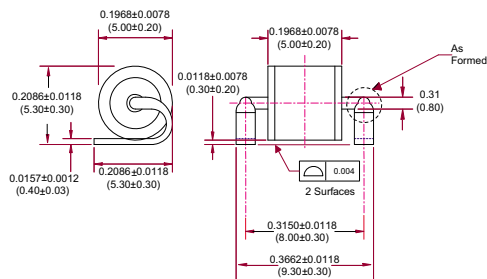
MECHANICAL DIMENSIONS

Other lead forms are available upon request.
Contact REMtech for more information.

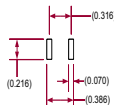
DIMENSIONS
mm
(inches)



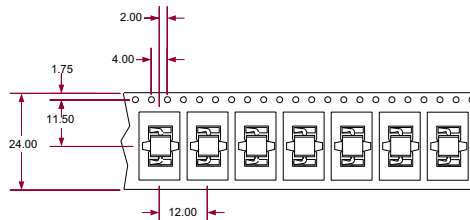
LS Outline



LS Recommended Land Pattern



LS Tape & Reel Packaging



Tape & Reel packaging is available on request. See ordering information below for part number structure.

ORDERING INFORMATION

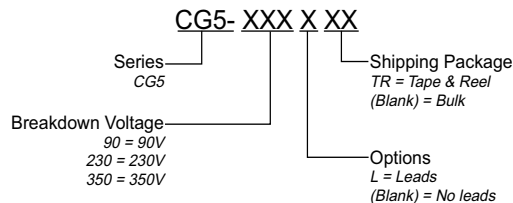
A complete part number is represented by the digits below.
For example, CG5-90 is a non-leaded 90V device, CG5-230L is a leaded 230V device, and CG5-350LTR is a leaded 350V device on tape-and-reel per EIA standard RS-296-D.

Tape & Reel Information

CG5XXXLTR - Tape & Reel per EIA RS-296-D. Quantity = 1,000/Reel

CG5XXXLTE - Tape & Reel per IEC286-1. Quantity = 1,000/Reel

CG5XXXLSTR - See figure above for tape & reel information. Quantity = 2,900/Reel





DESCRIPTION

The range of CG5 MS mini surge arresters have been specifically designed for use in surface mount assembly applications for the protection of electrical and communication equipment against over voltage transients. Utilising our latest non-radioactive technology SRC Devices are able to offer this leading edge protection solution competitively in the global market.

FEATURES

- Surface Mount construction
- Ultra Small Package
- Non-Radioactive
- Low capacitance (<1pF)
- Voltage Ranges 90V to 600V
- UL recognised
- Conforms to ITU-T K12, IEC 1000-4-5

APPLICATIONS

- Communication equipment
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- ADSL equipment
- Telecom SLIC protection

VOLTAGE RANGE

Parameter	Min	Typ	Max	Units
DC Breakdown Voltage	72	90	113	V
	184	230	276	V
	280	350	420	V
	480	600	720	V
Insulation Resistance	10 ¹⁰	-	-	Ω
Capacitance	-	-	1	pF
Operational Temperature	-40	-	+125	°C

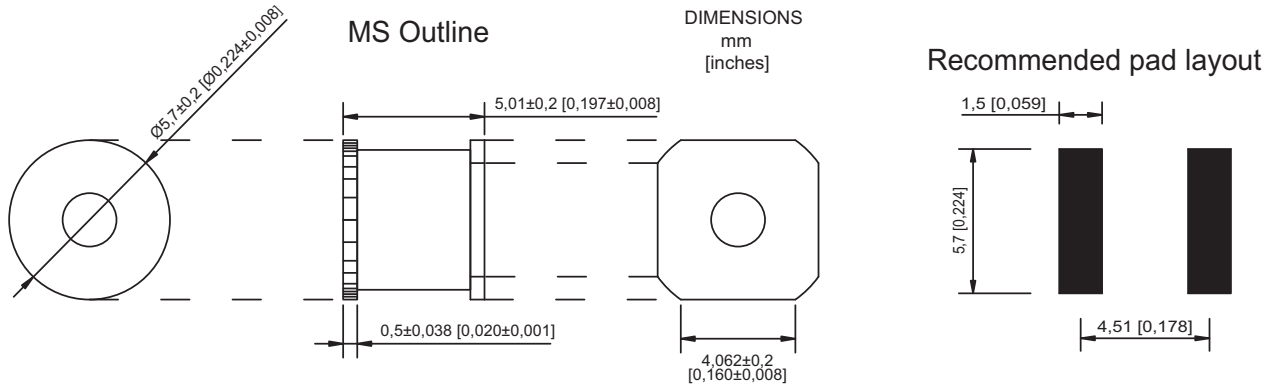
SPECIFICATIONS

PARAMETER	CONDITIONS	CG590			CG5230			CG5350			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Device Specifications											
DC Breakdown	500V/s	72	90	113	184	230	276	280	350	420	V
Impulse Breakdown	100V/μs	-	-	500	-	-	500	-	-	600	V
Insulation Resistance **	100V	10 ¹⁰	-	-	10 ¹⁰	-	-	10 ¹⁰	-	-	Ω
Capacitance	1MHz	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	@5A min	-	25	-	-	25	-	-	25	-	V
Life Ratings											
Surge Life	100A(10/1000μs)	300	-	-	300	-	-	300	-	-	shots
Max Current Surge	5KA(8/20μs)	10	-	-	10	-	-	10	-	-	shots
AC Current	10x 1sec@60Hz	-	-	5	-	-	5	-	-	5	A
DC Holdover Voltage	per REA PE-80, 0.2A	-	65	-	-	150	-	-	150	-	V

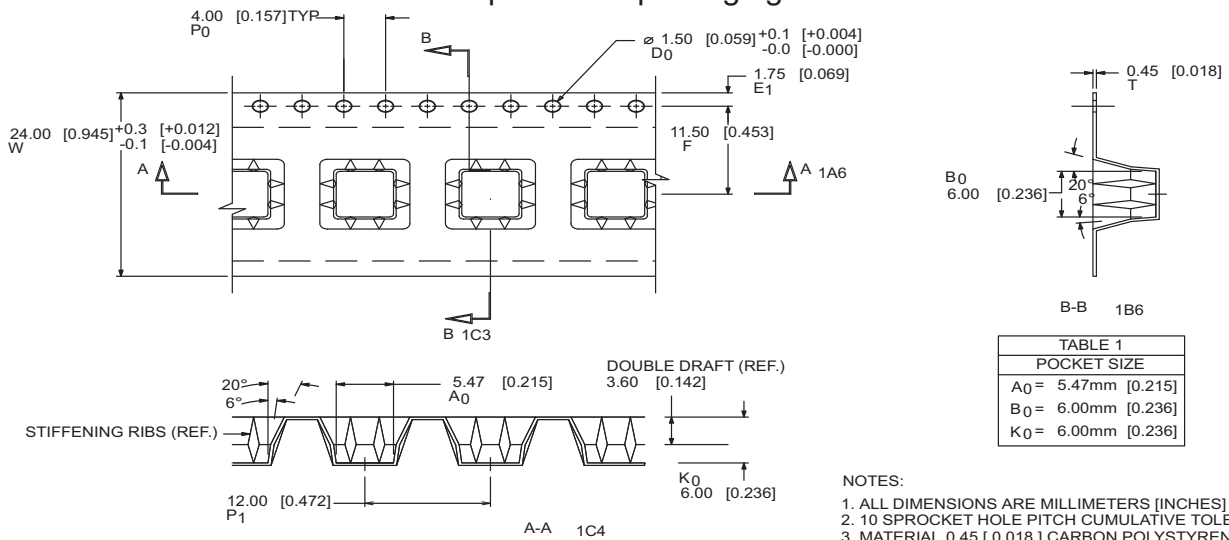
** 50V for CG590

PARAMETER	CONDITIONS	CG5600			UNITS
		MIN	TYP	MAX	
Device Specifications					
DC Breakdown	500V/s	480	600	720	V
Impulse Breakdown	100V/μs	-	-	1000	V
Insulation Resistance **	100V	10 ¹⁰	-	-	Ω
Capacitance	1MHz	-	-	1	pF
Arc Voltage	@5A min	-	25	-	V
Life Ratings					
Surge Life	100A(10/1000μs)	300	-	-	shots
Max Current Surge	5KA(8/20μs)	10	-	-	shots
AC Current	10x 1sec@60Hz	-	-	5	A
DC Holdover Voltage	per REA PE-80, 0.2A	-	150	-	V

MECHANICAL DIMENSIONS



Tape & Reel packaging



ORDERING INFORMATION

A complete part number is represented by the digits below. For example, CG590MS for a 90V device, CG5230MS for a 230V device.

