

TWO ELECTRODE SURGE ARRESTERS

CG/CG2 Series



DESCRIPTION

SRC Devices CG/CG2 GDT's are designed for a high degree of surge protection at a low cost. The CG Series (75-110V) is used for protection of test and communication equipment in which low voltage limits and extremely low arc voltages are required. The CG2 Series (145V-1000V) is used for protecting equipment for which higher voltage limits and holdover voltages are necessary. Comgaps function as switches which dissipate a minimum amount of energy and therefore handle currents that far surpass other types of transient voltage protection.

FEATURES

- Small size
- Rugged ceramic-metal construction
- Low capacitance (<1pF)
- Non Radioactive 600-1000 V
- Available with or without leads
- Available in tape-and-reel packaging

APPLICATIONS

- Communication lines
- CATV equipment
- Test equipment
- Data lines
- Power supplies
- Instrumentation circuits
- Medical electronics

APPROVALS

- UL Recognized: File Number E111526
- Meets REA PE-80

RATINGS (@ 25° C)

Parameter	Min	Typ	Max	Units
DC Breakdown Voltage	60	75	90	V
	72	90	108	V
	88	110	132	V
	116	145	174	V
	195	230	265	V
	213	250	288	V
	255	300	345	V
	297	350	403	V
	400	470	540	V
	510	600	690	V
	680	800	920	V
850	1000	1150	V	
Insulation Resistance	10 ¹⁰	-	-	Ω
Capacitance	-	-	1	pF
Operational Temperature	-40	-	+125	°C

(See detailed specifications for more information.)

SPECIFICATIONS

All characteristics at 25°C

PARAMETER	CONDITIONS	SYMBOL	CG75			CG90			CG110			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Device Specifications												
DC Breakdown	500V/s	V _{BD}	60	75	90	72	90	108	88	110	132	V
Impulse Breakdown	100V/μs	V _{bd}	- ¹⁰	-	400	- ¹⁰	-	400	- ¹⁰	-	450	V
Insulation Resistance	50V	IR	10	-	-	10	-	-	10	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V _{ARC}	-	10	-	-	10	-	-	10	-	V
Life Ratings⁽¹⁾												
Surge Life	500A (10/1000μs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	20kA (8/20μs)	-	5	-	-	5	-	-	5	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	55	-	-	65	-	-	80	-	V

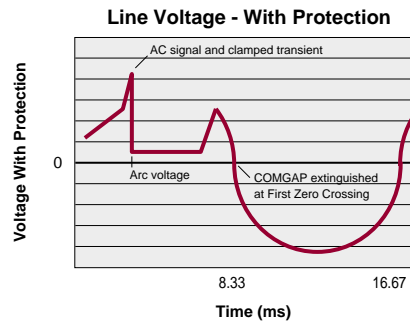
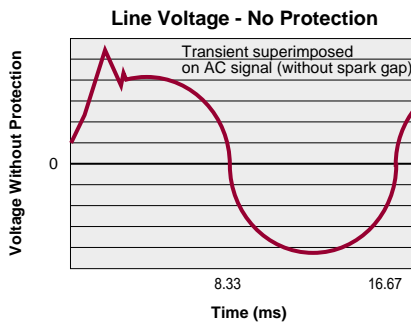
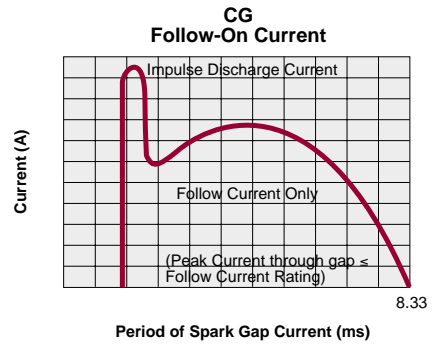
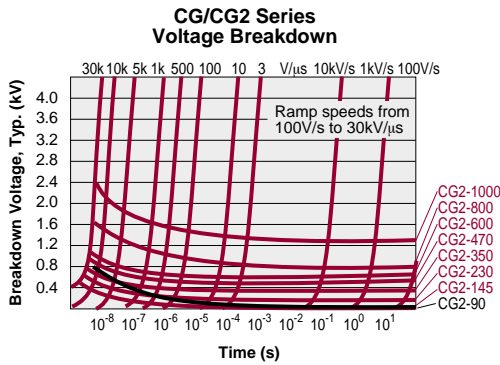
PARAMETER	CONDITIONS	SYMBOL	CG2145			CG2230			CG2250			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Device Specifications												
DC Breakdown	500V/s	V _{BD}	116	145	174	195	230	265	213	250	288	V
Impulse Breakdown	100V/μs	V _{bd}	- ¹⁰	-	500	- ¹⁰	-	600	- ¹⁰	-	625	V
Insulation Resistance	100V	IR	10	-	-	10	-	-	10	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V _{ARC}	-	15	-	-	15	-	-	15	-	V
Life Ratings⁽¹⁾												
Surge Life	500A (10/1000μs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	20kA (8/20μs)	-	5	-	-	5	-	-	5	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	1/2 cycle @ 60Hz	-	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	90	-	-	150	-	-	150	-	V

PARAMETER	CONDITIONS	SYMBOL	CG2300			CG2350			CG2470			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Device Specifications												
DC Breakdown	500V/s	V _{BD}	255	300	345	297	350	403	400	470	540	V
Impulse Breakdown	100V/μs	V _{bd}	- ¹⁰	-	700	- ¹⁰	-	750	- ¹⁰	-	850	V
Insulation Resistance	100V	IR	10	-	-	10	-	-	10	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V _{ARC}	-	15	-	-	15	-	-	15	-	V
Life Ratings⁽¹⁾												
Surge Life	500A (10/1000μs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	20kA (8/20μs)	-	5	-	-	5	-	-	5	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	1/2 cycle @ 60Hz	-	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	150	-	-	150	-	-	150	-	V

PARAMETER	CONDITIONS	SYMBOL	CG2600			CG2800			CG21000			UNITS
			MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
Device Specifications												
DC Breakdown	500V/s	V _{BD}	510	600	690	680	800	920	850	1000	1150	V
Impulse Breakdown	100V/μs	V _{bd}	- ¹⁰	-	1000	- ¹⁰	-	1200	- ¹⁰	-	1500	V
Insulation Resistance	100V	IR	10	-	-	10	-	-	10	-	-	Ω
Capacitance	1MHz	C	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	I=5A min	V _{ARC}	-	15	-	-	15	-	-	15	-	V
Life Ratings⁽¹⁾												
Surge Life	500A (10/1000μs)	-	1000	-	-	1000	-	-	1000	-	-	shots
Max Current Surge	10kA (8/20μs)	-	10	-	-	10	-	-	10	-	-	shots
AC Current	10x 1sec @ 60Hz	-	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	1/2 cycle @ 60Hz	-	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	-	150	-	-	150	-	-	150	-	V

⁽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.

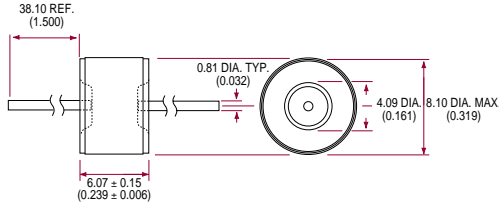
PERFORMANCE CHARACTERISTICS



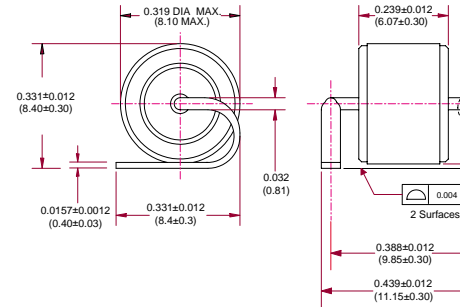
MECHANICAL DIMENSIONS

DIMENSIONS
mm
(inches)

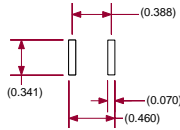
Other lead forms are available upon request.
Contact REMtech for more information.



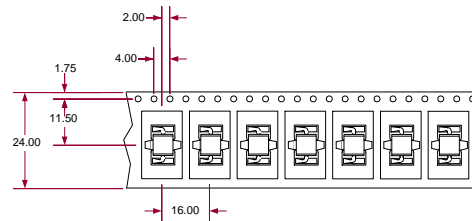
LS Outline



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

Tape & Reel Information

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

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

CGXXXLSTR - See figure above for tape & reel information. Quantity = 1,400/Reel

CG/CG2's with other breakdown voltages in the 75-1000 V range are available upon request. A complete part number is represented by the digits below. For example, CG75 is a non-leaded 75V device, CG2-230L is a leaded 230V device, and CG2-800LTR is a leaded 800V device on tape-and-reel per EIA standard RS-296-D.

