

SURFACE MOUNT SURGE ARRESTERS

CG/CG2 MS Series



DESCRIPTION

The range of CG/CG2 MS 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
- Low Capacitance (<1pF)
- Non-Radioactive
- Rugged Ceramic-Metal package
- Voltage Ranges 75V to 1000V
- UL recognised
- Conforms to ITU-T K12, IEC 1000-4-5 REA PE-80

APPLICATIONS

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

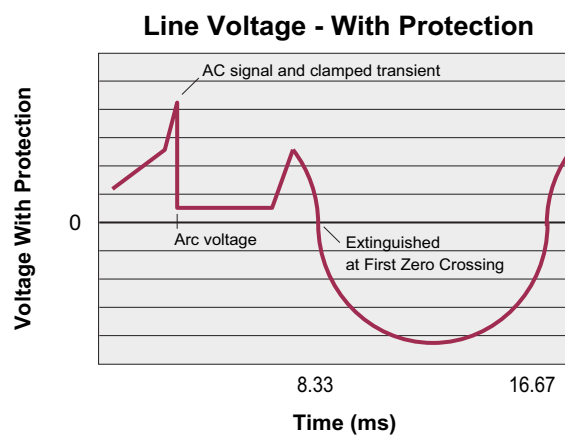
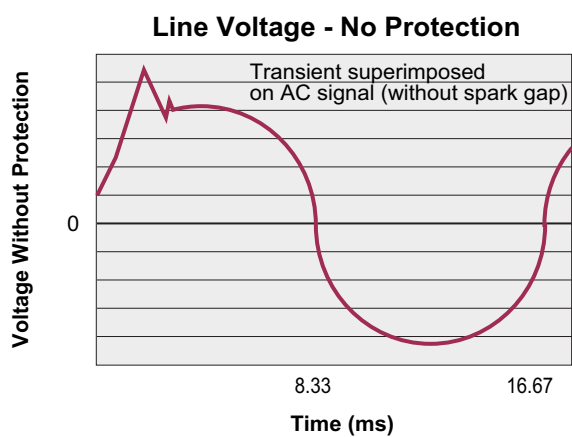
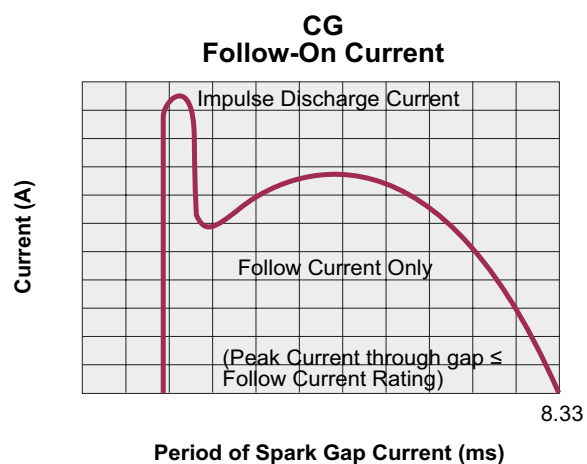
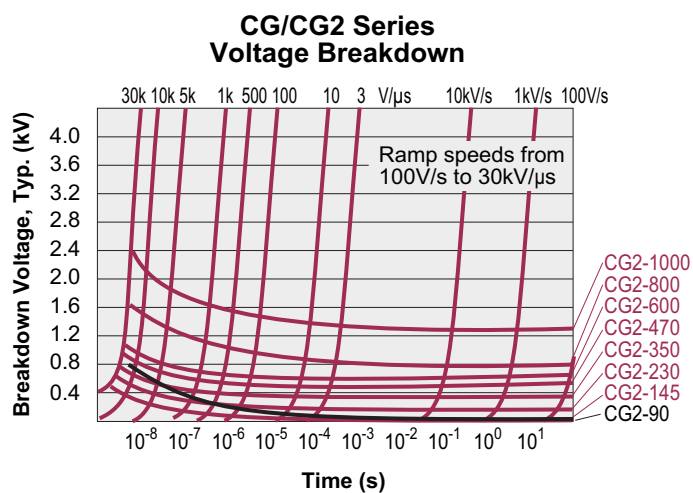
VOLTAGE RANGE

Parameter	Min	Typ	Max	Units
DC Breakdown Voltage	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

SPECIFICATIONS

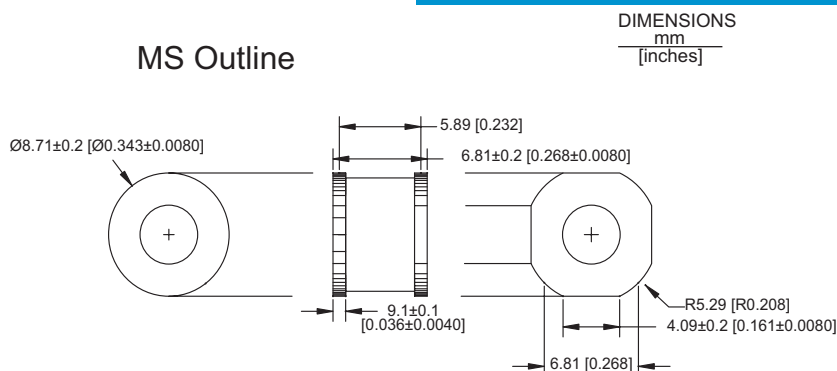
			CG75			CG90			CG110		
PARAMETER	CONDITIONS	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Device Specifications											
DC Breakdown	500V/s	60	75	90	72	90	108	88	110	132	V
Impulse Breakdown	100V/μs	-	-	400	-	-	400	-	-	450	V
Insulation Resistance	50V	10 ¹⁰	-	-	10 ¹⁰	-	-	10 ¹⁰	-	-	Ω
Capacitance	1MHz	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	@5A min	-	10	-	-	10	-	-	10	-	V
Life Ratings											
Surge Life	500A(10/1000μs)	500	-	-	500	-	-	500	-	-	shots
Max Current Surge	10KA(8/20μs)	10	-	-	10	-	-	10	-	-	shots
AC Current	10x1sec@60Hz	-	-	20	-	-	20	-	-	20	A
DC Holdover Voltage	per REA PE-80, 0.2A	-	55	-	-	65	-	-	80	-	V
			CG2145			CG2230			CG2250		
PARAMETER	CONDITIONS	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Device Specifications											
DC Breakdown	500V/s	116	145	174	195	230	265	213	250	288	V
Impulse Breakdown	100V/μs	-	-	500	-	-	600	-	-	625	V
Insulation Resistance	100V	10 ¹⁰	-	-	10 ¹⁰	-	-	10 ¹⁰	-	-	Ω
Capacitance	1MHz	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	@5A min	-	15	-	-	15	-	-	15	-	V
Life Ratings											
Surge Life	500A(10/1000μs)	500	-	-	500	-	-	500	-	-	shots
Max Current Surge	10KA(8/20μs)	10	-	-	10	-	-	10	-	-	shots
AC Current	10x1sec@60Hz	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	½ cycle@60Hz	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	90	-	-	150	-	-	150	-	V
			CG2300			CG2350			CG2470		
PARAMETER	CONDITIONS	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Device Specifications											
DC Breakdown	500V/s	255	300	345	297	350	403	400	470	540	V
Impulse Breakdown	100V/μs	-	-	700	-	-	750	-	-	850	V
Insulation Resistance	100V	10 ¹⁰	-	-	10 ¹⁰	-	-	10 ¹⁰	-	-	Ω
Capacitance	1MHz	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	@5A min	-	15	-	-	15	-	-	15	-	V
Life Ratings											
Surge Life	500A(10/1000μs)	500	-	-	500	-	-	500	-	-	shots
Max Current Surge	10KA(8/20μs)	10	-	-	10	-	-	10	-	-	shots
AC Current	10x1sec@60Hz	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	½ cycle@60Hz	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	150	-	-	150	-	-	150	-	V
			CG2600			CG2800			CG21000		
PARAMETER	CONDITIONS	MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	UNITS
Device Specifications											
DC Breakdown	500V/s	510	600	690	680	800	920	850	1000	1150	V
Impulse Breakdown	100V/μs	-	-	1000	-	-	1200	-	-	1500	V
Insulation Resistance	100V	10 ¹⁰	-	-	10 ¹⁰	-	-	10 ¹⁰	-	-	Ω
Capacitance	1MHz	-	-	1	-	-	1	-	-	1	pF
Arc Voltage	@5A min	-	15	-	-	15	-	-	15	-	V
Life Ratings											
Surge Life	500A(10/1000μs)	500	-	-	500	-	-	500	-	-	shots
Max Current Surge	10KA(8/20μs)	10	-	-	10	-	-	10	-	-	shots
AC Current	10x1sec@60Hz	-	-	20	-	-	20	-	-	20	A
AC Follow-on Current	½ cycle@60Hz	-	-	20	-	-	20	-	-	20	A pk
DC Holdover Voltage	per REA PE-80, 0.2A	-	150	-	-	150	-	-	150	-	V

PERFORMANCE CHARACTERISTICS

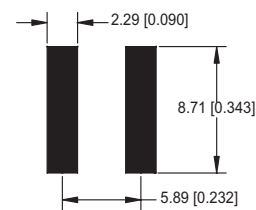


MECHANICAL DIMENSIONS

MS Outline



Recommended pad layout



RECOMMENDED PAD LAYOUT

Tape & Reel packaging

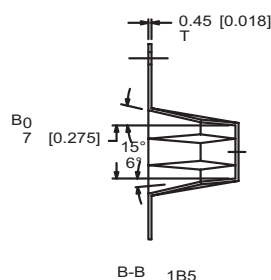
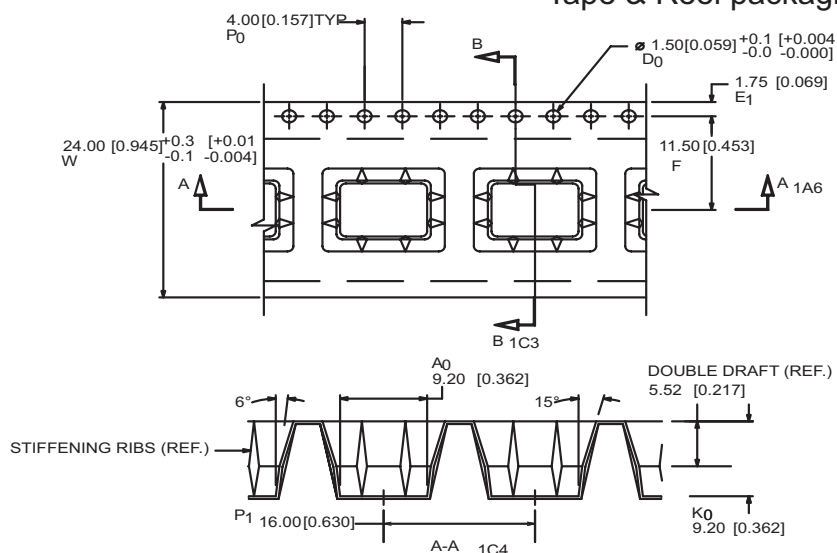


TABLE 1
POCKET SIZE
$A_0 = 9.20 \text{ mm} [0.362]$
$B_0 = 6.52 \text{ mm} [0.257]$
$K_0 = 9.20 \text{ mm} [0.362]$

NOTES:

1. ALL DIMENSIONS ARE MILLIMETERS [INCHES]
2. 10 SPROCKET HOLE PITCH CUMULATIVE TOLERANCE $\pm 0.2\text{mm}$
3. MATERIAL 0.45 [0.018] CARBON POLYSTYRENE
4. 26 METRES / 22⁵ REEL
5. NO CENTER OF POCKET HOLE

PART CONFORMS TO E.I.A. STANDARDS

ORDERING INFORMATION

A complete part number is represented by the digits below. For example, CG75MS for a 75V device, CG2230MS for a 230V device.

CG XXX MS for 75, 90, 110V

CG2 XXX MS for 145V to 1000V

Series	Breakdown Voltage
CG	75=75V
CG2	90=90V
	110=110V
	145=145V
	230=230V
	250=250V
	300=300V
	350=350V
	470=470V
	600=600V
	800=800V
	1000=1000V