

SURFACE MOUNT SURGE ARRESTERS

CG5 MS Mini Series



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

CG5600					UNITS	
PARAMETER	CONDITIONS	MIN	TYP	MAX		
Device Specifications						
DC Breakdown	500V/s	480	600	720		V
Impulse Breakdown	100V/ μ s	-	-	1000		V
Insulation Resistance **	100V	10 ¹⁰	-	-		Ω
Capacitance	1MHz	-	-	1		pF
Arc Voltage	@5A min	-	25	-		V
Life Ratings						
Surge Life	100A(10/1 000 μ s)	300	-	-		shots
Max Current Surge	5KA(8/20 μ s)	10	-	-	shots	
AC Current	10x 1sec@60Hz	-	-	5	A	
DC Holdover Voltage	per REA PE-80, 0.2A	-	150	-	V	

Technical drawing of a roof panel showing top and cross-section views with dimensions and tolerances.

Top View Dimensions:

- Overall width: 24.00 [0.945]
- Overall height: 11.50 [0.453]
- Distance from top edge to first row of holes: 4.00 [0.157] TYP
- Distance between rows of holes: 1.75 [0.069]
- Distance from right edge to last row of holes: 11.50 [0.453]
- Distance from left edge to first square feature: 24.00 [0.945]
- Distance between square features: 12.00 [0.472]
- Distance from right edge to last square feature: 12.00 [0.472]
- Distance from top edge to center of first square feature: 4.00 [0.157] TYP
- Distance between square features: 12.00 [0.472]
- Distance from right edge to center of last square feature: 12.00 [0.472]

Top View Features:

- 8 circular holes (D0) with diameter $\varnothing 1.50$ [0.059] +0.1 [-0.0] [+0.004] [-0.000]
- 4 square features (1A6) with rounded corners and internal patterns
- Section lines A-A and B-B

Cross-Section View (A-A) Dimensions:

- Overall height: 11.50 [0.453]
- Distance from top edge to first row of holes: 4.00 [0.157] TYP
- Distance between rows of holes: 1.75 [0.069]
- Distance from right edge to last row of holes: 11.50 [0.453]
- Distance from left edge to first square feature: 24.00 [0.945]
- Distance between square features: 12.00 [0.472]
- Distance from right edge to last square feature: 12.00 [0.472]
- Distance from top edge to center of first square feature: 4.00 [0.157] TYP
- Distance between square features: 12.00 [0.472]
- Distance from right edge to center of last square feature: 12.00 [0.472]

Cross-Section View (A-A) Features:

- Stiffening ribs (REF.) with a height of 6.00 [0.236]
- Double draft (REF.) with a height of 3.60 [0.142]
- Section line A-A

TABLE 1	
POCKET SIZE	
A ₀ =	5.47mm [0.215]
B ₀ =	6.00mm [0.236]
K ₀ =	6.00mm [0.236]

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

Series CG5 XXX MS

Breakdown Voltage

90=90V
230=230V
350=350V
600=600V