

CG Series

Comm Gap

**transient
protectors**

Signalite

1933 Heck Ave., Neptune, N. J. 07753 ■ Area Code 201-775-2490

DIVISION OF GENERAL INSTRUMENT CORPORATION

- Low Cost
- Subminiature Size
- Rugged Ceramic Construction
- Low Voltages (75-1000 vdc)
- Low Capacitance (< 1.5 pf)
- High Peak Current Capability (> 10 ka)
- Fast Protection

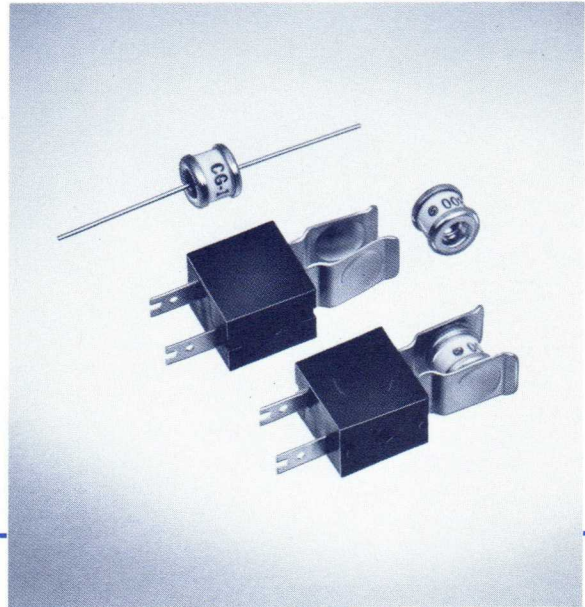
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comm gap transient protectors

The CG-Series, "Comm Gap," protectors find their principal application in the telecommunications industry as high quality, reliable transient protectors. They provide transient protection at minimum cost and size in other applications as well such as industrial instrumentation and control systems, radio equipment, intrusion detection and other alarm systems, traffic controls, and flash tube triggers. Protection is provided wherever unwanted voltage transients occur.

The Comm Gap is also furnished as the CGL with welded leads. Both series feature rugged miniaturized ceramic construction, picofarad capacitance and high peak current and energy capability. Comm Gap mounting clips (CGH-1) are available.

When the protector fires, its originally near-infinite resistance drops to a near short. Thus, there may be a follow on current limited only by circuit impedance, which must be interrupted to allow protector recovery.



COMM GAP LIFE

The Comm Gap life specifications, on the opposite page, indicate the typical number of times that the gap can be subjected to a 1000 ampere 10/250 microsecond wavefront at 30 second intervals without causing the DC breakdown to vary:

- A. Beyond 18 percent of nominal value for 15 percent tolerance units.
- B. Beyond 25 percent of nominal value for 20 percent tolerance units.

The CG-350 and CG-350L devices typically will withstand 750 surges of a 500 ampere 10/1000 microsecond wavefront at 30 second intervals.

The life of the CG Series of transient voltage protectors, in number of operations, is a function of the anticipated transient pulse, e.g. peak current and pulse duration. The very nature of transients, however, is the unpredictable aspect of their magnitude and energy content. Accumulation of test data at Signalite is a constant effort undertaken to provide the most up-to-date performance characteristics of our products. For CG Series life data at levels other than those specified, please contact our factory for assistance.

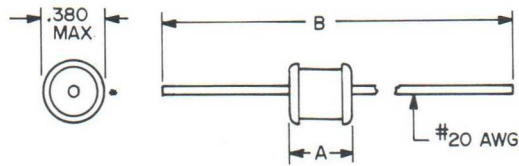
ENVIRONMENTAL TESTING

All units meet the requirements of MIL-STD 202 as outlined below.

Test	Method	Condition
Vibration	204	C
Shock	213A	A except 100 G's
	213A	C
	213A	C except 1 ms.
Humidity	103	B
Temperature Cycling	102A	C
Barometric Pressure	105C	B
Thermal Shock	107	B

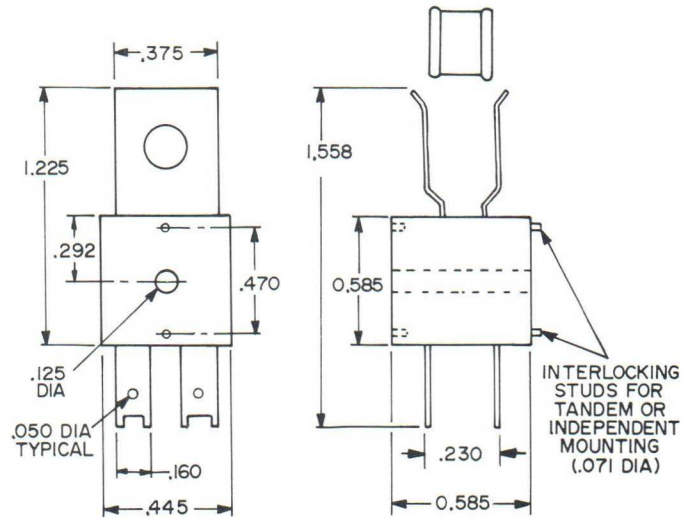
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outline drawings



Series	Size	
	A	B
CG 75 thru 470	.265 ±.012	2.05 Nom.
CG 800 thru 1000	.295 ±.012	2.08 Nom.

COMM GAP(CG)



COMM GAP MOUNTING CLIP (CGH-1)

RATINGS AND CHARACTERISTICS

Type CG Without Leads*	Breakdown Voltage		Typical Capacitance (pf)	Typical Life # Operations
	DC (vdc) @ dv/dt < 100 v/sec	Pulse (kv) @ 5 kv/μsec		
CG-75	75 ±20%	1.0 Max.	1.4	75
CG-90	90 ±20%	1.0 Max.	1.3	200
CG-110	110 ±20%	1.0 Max.	1.3	30
CG-145	145 ±20%	1.0 Max.	1.1	100
CG-230	230 ±15%	1.5 Max.	1.1	100
CG-350	350 ±15%	2.0 Max.	0.8	250
CG-470	470 ±15%	2.5 Max.	0.8	30
CG-800	800 ±15%	4.0 Max.	0.7	20
CG-1000	1000 ±15%	4.0 Max.	0.7	20

Operating temperature range: -55°C to +125°C

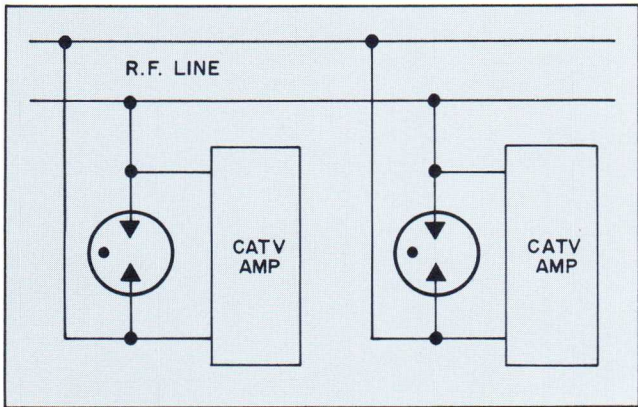
Insulation Resistance: 10,000 MΩ at 100 vdc
(except at 50 vdc for units rated 110 v and below)

*To specify Leads, add suffix "L".

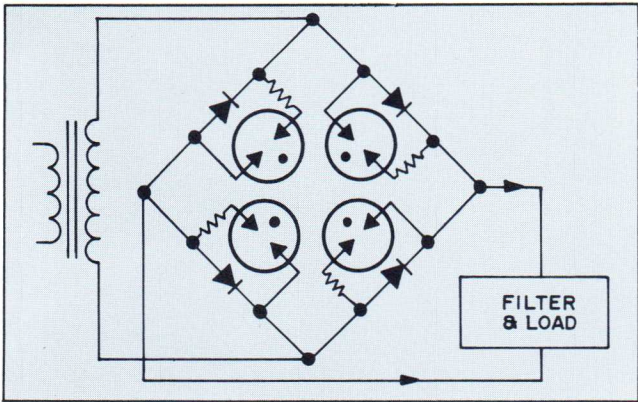
Other voltages upon request.

(Typical Applications on reverse)

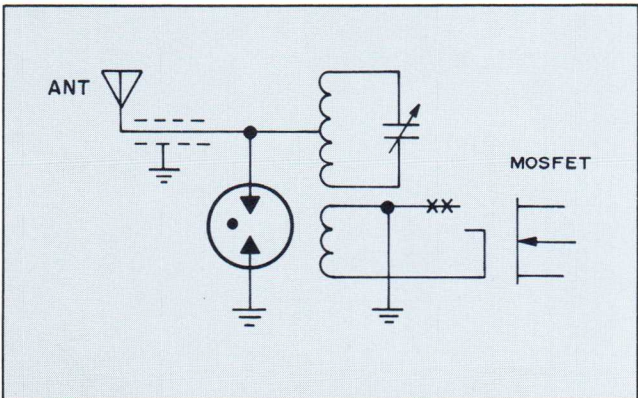
comm gap applications...



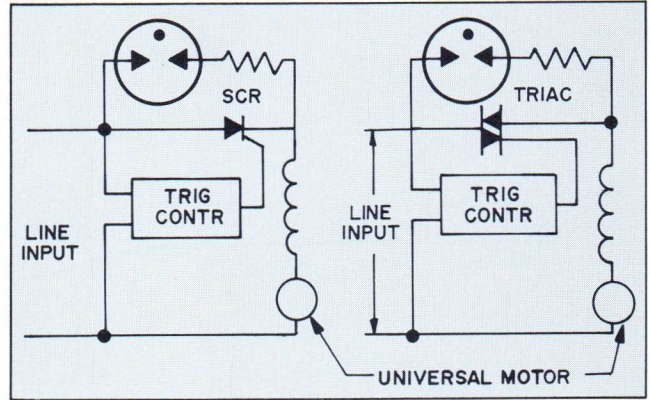
CATV



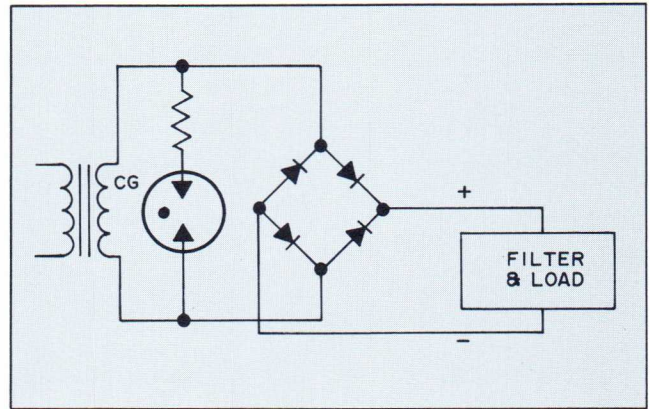
RECTIFIER PROTECTION



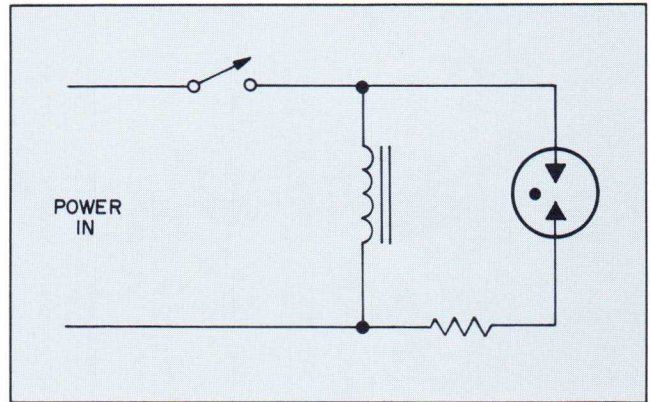
RECEIVER FRONT-END PROTECTION



SCR/TRIAC PROTECTION



INDUCTANCE & LINE PROTECTION



SOLENOID/MOTOR PROTECTION

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