

**RoHS**  **Greentube™ SL1002A Series Gas Plasma Arrester**



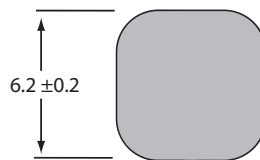
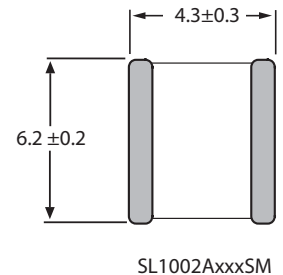
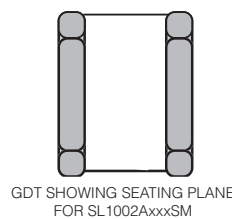
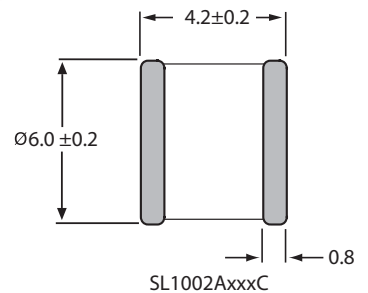
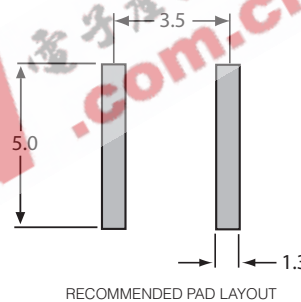
The Broadband Optimized™ SL1002 series has been especially developed for use in broadband equipment. Unique design features offer high levels of performance on fast rising transients in the domain of 100V/μs to 1KV/μs, which are those most likely from induced Lightning disturbances. These devices have Ultra low capacitance (typically 1.2pF or less) and present insignificant signal losses up to 1.5GHz. These devices are extremely robust and are able to divert a 5000A pulse without destruction. For AC Power Cross of long duration, overcurrent protection is recommended.

**FEATURES**

- RoHS compliant and Lead-free
- Ultra Low Insertion Loss
- Surface mountable
- 5KA surge capability tested with 8/20μs pulse as defined by IEC 61000-4-5
- Excellent response to fast rising transients.
- Can be used to meet Telcordia GR1089 without series resistance
- 10/700 6KV capability, as per ITUT k.21, enhanced test level
- 2000 Amp 2/10μs surge rating
- Meets FCC part 68 10/160μs waveform, 200A test and 10/560μs waveform 100A test.

**Applications:**

- Broadband equipment.
- ADSL equipment.
- XDSL equipment.
- Satellite and CATV equipment.
- General telecom equipment.



All dimensions in mm

**Mechanical Specifications:**

- Weight:** 0.63g (0.022 oz.)
- Materials:** Electrode Base: Nickel Iron Alloy  
Electrode Plating: Bright Sn  
Body: Ceramic
- Device Marking:** 'LF' logo, Voltage and date code

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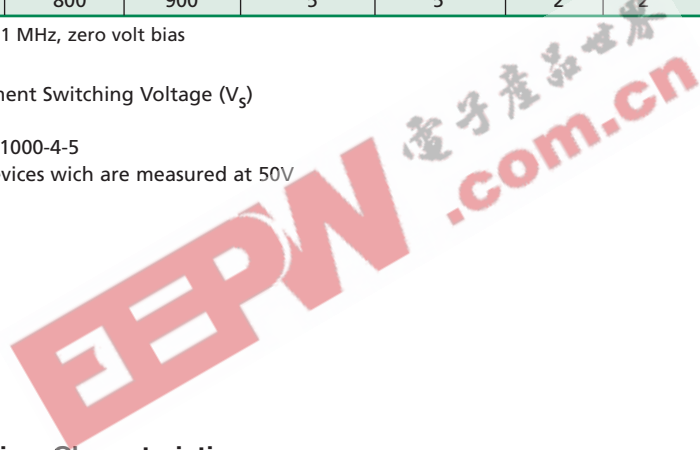
**LITTELFUSE 2 TERMINAL MINI ARRESTER SERIES**  
**TOTALLY NON-RADIOACTIVE, UL RECOGNIZED**

Part Number*	DC Breakover Voltage @100 V/s Volts		MAX Dynamic Breakover Voltage <sup>1</sup>		AC Discharge Current <sup>2</sup> Amps	Max Repetitive Impulse Current <sup>3</sup> kAmps	MAX Single Impulse Current		Max Leakage Current <sup>4</sup> nAmps	Holdover Voltage <sup>5</sup> Volts	Nominal On-state Voltage @1A Volts
	MIN	MAX	100 V/μs Volts	1kV/μs Volts			2/10 μs kAmps	2/350 μs kAmps			
SL1002A090	70	120	360	700	5	5	2	2	100	50	20
SL1002A230	184	276	400	500	5	5	2	2	100	135	20
SL1002A250	200	300	400	500	5	5	2	2	100	135	20
SL1002A260	210	310	400	500	5	5	2	2	100	135	20
SL1002A350	280	420	500	600	5	5	2	2	100	135	20
SL1002A600	480	720	800	900	5	5	2	2	100	135	20

\*Max capacitance is 1.2 pF, measured at 1 MHz, zero volt bias

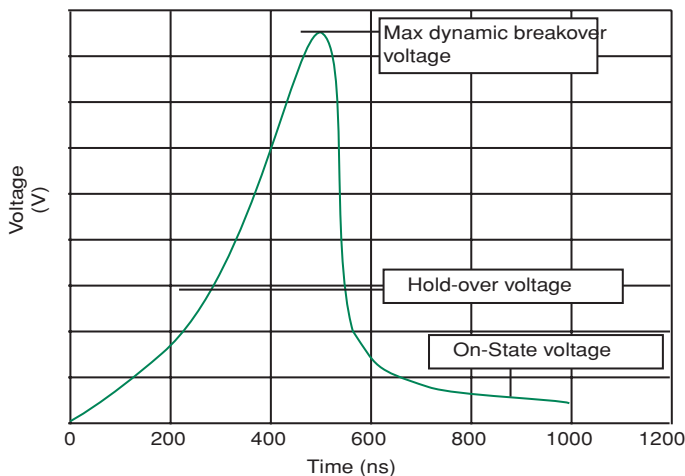
**Notes:**

1. Comparable to the silicon measurement Switching Voltage ( $V_s$ )
2. 10 shots, AC 60Hz, 1μs duration
3. 10 shots, 8/20μs waveform per IEC 61000-4-5
4. Measured at 100V, except 90VDC devices which are measured at 50V
5. Tested according to ITU-T Rec. K.12



GAS DISCHARGE TUBES

**Voltage vs Time Characteristic**



**Typical Insertion Loss**

- @ 1.0 GHz = 0.01 dB
- @1.4GHz = 0.1dB
- @1.8 GHz = 0.53 dB
- @2.1 GHz = 0.81 dB
- @2.45 GHz= 1dB
- @2.8 GHz = 1.2 dB
- @3.1 GHz = 1.5dB
- @3.5 GHz = 2.1 dB