# **Littelfuse**

### Gas Discharge Tubes

High Performance Beta Range

## 

**LR**®

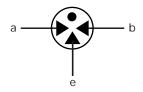
The SL1021A series offers high levels of performance on fast rising transients in the domain of 100V/µS to 1KV/µS, which are those most likely from induced Lightning disturbances. The SL1021A series also features ultra low capacitance (typically 1pF or less) and optimised internal geometry which provides low insertion loss at high frequencies, so are ideal for the protection of broadband equipment. These devices are extremely robust and are able to divert a 10,000Amp pulse without destruction.

#### **FEATURES**

- RoHS compliant except 'RS' suffix
- Low insertion loss
- Excellent response to fast rising transients.
- Ultra low capacitance.
- 10KA surge capability tested with 8/20µs pulse as defined by IEC 61000-4-5
- 20,000 A single shot surge capability tested with 8/20µs pulse as defined by IEC 61000-4-5
- Available with thermal failsafe option (add 'F' or 'S' suffix to part number)
- ROHS Compliant

#### Applications:

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

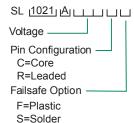


3 ELECTRODE GDT

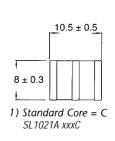
a=TIP
b=RING
e=GROUND
(centre electrode)

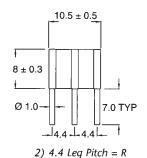
GRAPHICAL SYMBOL

#### ORDERING INFORMATION



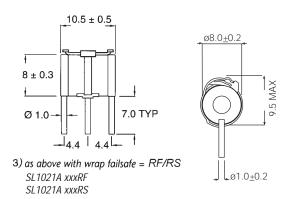






SL1021A xxxR

All dimensions in mm



### Mechanical Specifications:

**Weight:** 2.7g (0.095 oz.)

Materials: Electrode Base: Nickel Iron Alloy

Electrode Plating: Bright Sn

Body: Ceramic

Device Marking: Littelfuse 'LF' marking, Voltage and

date code.



### Gas Discharge Tubes

High Performance Beta Range

## Greentube™ SL1021A Series Gas Plasma Arresters

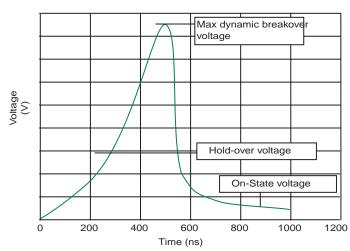
### **P**

### LITTELFUSE 3 TERMINAL ARRESTER SERIES TOTALLY NON-RADIOACTIVE, UL RECOGNIZED

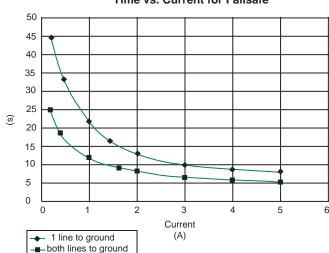
Part Number	DC Voltage @ 100V/sec (V)		DC Dynamic Breakover Voltage @ 100/µs (V)	Max Alternating Discharge Current <sup>1,3</sup> (A)	Max Repetitive Impulse Discharge Current 8/20µs¹⁴ (kA)	Max Single Impulse Discharge Current 8/20µs <sup>s</sup> (kA)	Single Impulse Discharge Current <sup>8</sup> (kA)	Max Single Impulse Discharge Current 10/350µs <sup>5</sup> (kA)	Life Test Rating²
SL1021A145	145	116-174	500	10	10	20	40	2.5	100 shots
SL1021A150	150	120-180	500	10	10	20	40	2.5	100 shots
SL1021A2006	200	150-250	350	10	10	20	40	2.5	100 shots
SL1021A230	230	184-276	350	10	10	20	40	2.5	100 shots
SL1021A250	250	200-300	400	10	10	20	40	2.5	100 shots
SL1021A260 <sup>7</sup>	260	210-310	420	10	10	20	40	2.5	100 shots
SL1021A300	300	240-360	450	10	10	20	40	2.5	100 shots
SL1021A350	350	280-420	500	10	10	20	40	2.5	100 shots
SL1021A400	400	320-480	550	10	10	20	40	2.5	100 shots
SL1021A420	420	345-500	600	10	10	20	40	2.5	100 shots
SL1021A450	450	360-540	650	10	10	20	40	2.5	100 shots
SL1021A500	500	400-500	700	10	10	20	40	2.5	100 shots
SL1021A600	600	480-720	850	10	10	20	40	2.5	100 shots

- (1) Total current through center (ground) electrode, both line electrodes pulsed simultaneously; half value through each respective line terminal.
- (2) 100 amps, 10/1000µS pulse (does not apply to SL1021A200)
- (3) 10 shots, A.C. 60Hz, 1 sec duration.
- (4) 10 shots, 8/20µS waveform
- (5) either end (line) electrode to centre (ground) electrode
- (6) Meets the requirements of BT Type 21A.
- (7) Meets the requirements of BT Type 14A. Addition of 'F' (failsafe) option meets the requirements of BT type number 14A/1.





Time vs. Current for Failsafe





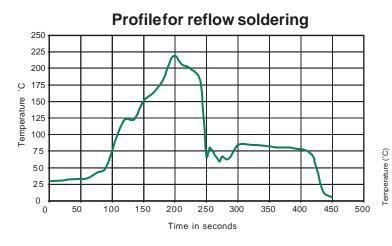
### Gas Discharge Tubes

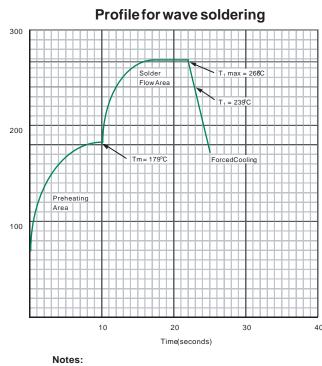
High Performance Beta Range



## **®** Greentube™ SL1021A Series Gas Plasma Arresters







 $T_1 \text{ max} = \text{MaximumTabTemperature} = 266^{\circ}\text{C}$  $T_1$ = FlowTempearture of Solder = 239°C = Melting Point of Solder = 179°C

Tamb = 25°C

Maximum permissible rate of temperature change =  ${}^{\circ}C$  / sec



### Gas Discharge Tubes

High Performance Beta Range

### RoHS

### Pó

## **Greentube™ SL1021B Series Gas Plasma Arresters**

**LR**®

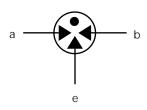
The SL1021B series offers high levels of performance on fast rising transients in the domain of  $100V/\mu S$  to  $1KV/\mu S$ , which are those most likely from induced Lightning disturbances. The SL1021B series also features ultra low capacitance (typically 1pF or less) and optimised internal geometry which provides low insertion loss at high frequencies, so are ideal for the protection of broadband equipment. These devices are extremely robust and are able to divert a 20,000Amp pulse without destruction.

#### **FEATURES**

- RoHS compliant except 'RS' suffix
- Low insertion loss
- Excellent response to fast rising transients.
- Ultra low capacitance.
- 10KA surge capability tested with 8/20µS pulse as defined by IEC 6100-4-5
- 20,000 A single shot surge capability tested with 8/20µs pulse as defined by IEC 6100-4-5
- Available with thermal failsafe option (add 'F' or 'S' suffix to part number)

### Applications:

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

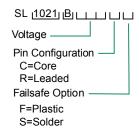


3 ELECTRODE GDT

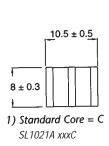
a=TIP
b=RING
e=GROUND
(centre electrode)

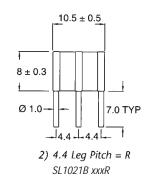
GRAPHICAL SYMBOL

#### ORDERING INFORMATION

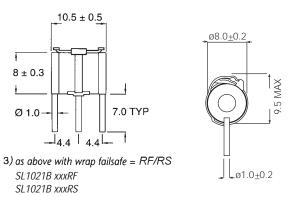








All dimensions in mm



### **Mechanical Specifications:**

Weight: 0.63g (0.022 oz.)

Materials: Electrode Base: Nickel Iron Alloy

Electrode Plating: Bright Sn

Body: Ceramic

Device Marking: Littelfuse 'LF' marking, Voltage and date

code. Blue.