

# Gas Discharge Tubes

## High Performance Beta Range

### RoHS Greentube™ SL1021B Series Gas Plasma Arresters



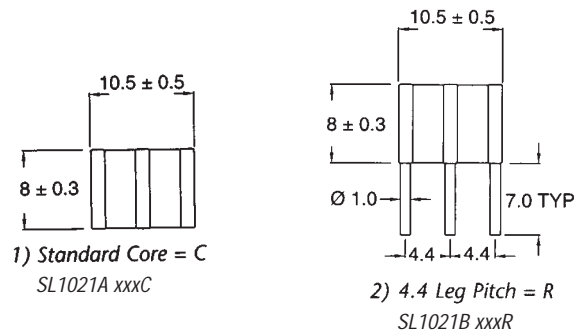
The SL1021B series offers high levels of performance on fast rising transients in the domain of 100V/μs to 1KV/μs, which are those most likely from induced Lightning disturbances. The SL1021B series also features ultra low capacitance (typically 1pF or less) and optimised internal geometry which provides 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

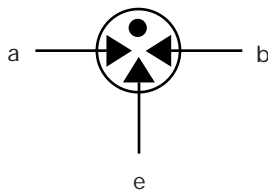
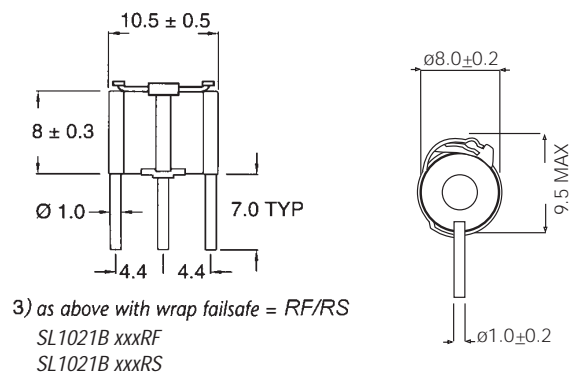
- RoHS compliant except 'RS' suffix
- Low insertion loss
- Excellent response to fast rising transients.
- Ultra low capacitance.
- 10KA surge capability tested with 8/20μs pulse as defined by IEC 6100-4-5
- 20,000 A single shot surge capability tested with 8/20μs pulse as defined by IEC 6100-4-5
- Available 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.



All dimensions in mm

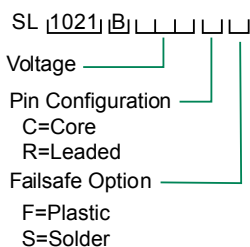


3 ELECTRODE GDT

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

GRAPHICAL SYMBOL

#### ORDERING INFORMATION



#### 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.

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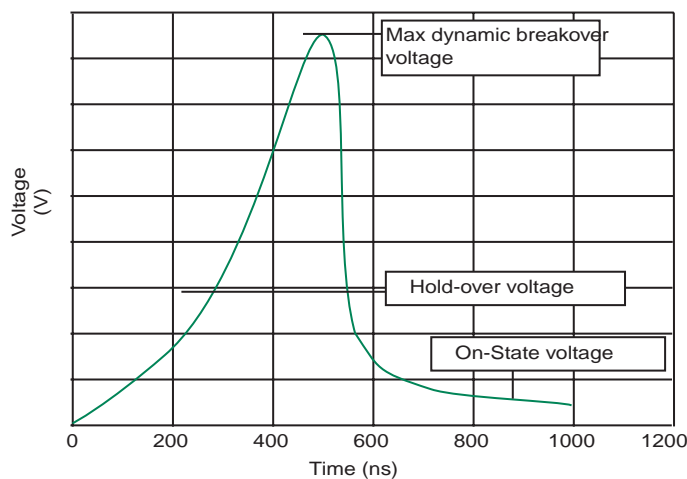
LITTELFUSE 3 TERMINAL HEAVY DUTY ARRESTER SERIES  
TOTALLY NON-RADIOACTIVE, UL RECOGNIZED

Part Number	DC Voltage @ 100V/sec (V)	DC Breakover Voltage Min-Max (V)	Max Dynamic Breakover Voltage @ 100V/μs	Max Alternating Discharge Current <sup>1,3,6</sup> (A)	Max Alternating Discharge Current <sup>5</sup> (A)	Max Repetitive Impulse Discharge Current (kA)	Max Impulse Discharge Current (kA)	Max Single Impulse Discharge Current 10/350μs <sup>5,6</sup> (kA)	Life Test Rating <sup>2</sup>
SL1021B145	145	116-174	500	20	10	10	20	2.5	100 shots
SL1021B150	150	120-180	500	20	10	10	20	2.5	100 shots
SL1021B200	200	150-250	350	20	10	10	20	2.5	100 shots
SL1021B230	230	184-276	350	20	10	10	20	2.5	100 shots
SL1021B250	250	200-300	400	20	10	10	20	2.5	100 shots
SL1021B260	260	210-310	420	20	10	10	20	2.5	100 shots
SL1021B300	350	240-360	450	20	10	10	20	2.5	100 shots
SL1021B350	350	280-420	500	20	10	10	20	2.5	100 shots
SL1021B400	400	320-480	550	20	10	10	20	2.5	100 shots
SL1021B420	420	345-500	600	20	10	10	20	2.5	100 shots
SL1021B450	450	360-540	650	20	10	10	20	2.5	100 shots
SL1021B500	500	400-500	750	20	10	10	20	2.5	100 shots

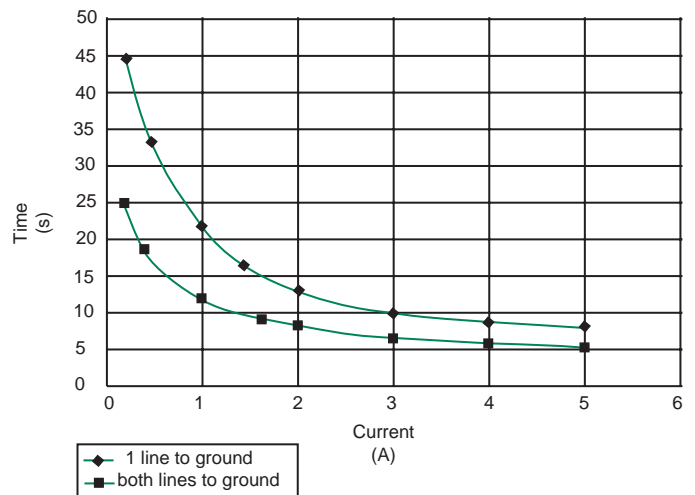
GAS DISCHARGE TUBES

- (1) Total current through center (ground) electrode, both line electrodes pulsed simultaneously; half value through respective line terminal to ground.
- (2) 100 amps, 10/1000μs pulse
- (3) 10 shots, A.C. 60 Hz, 1sec. Duration.
- (4) 10 shots, 8/20μs waveform
- (5) either end (line) electrode to centre (ground) electrode
- (6) Applies to 'C' option devices mounted in a suitable connector with high pressure contacts.

**Voltage vs Time Characteristic**



**Time vs. Current for Failsafe**



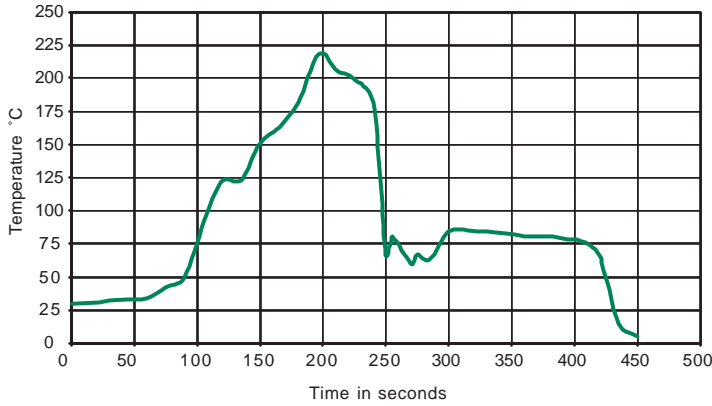
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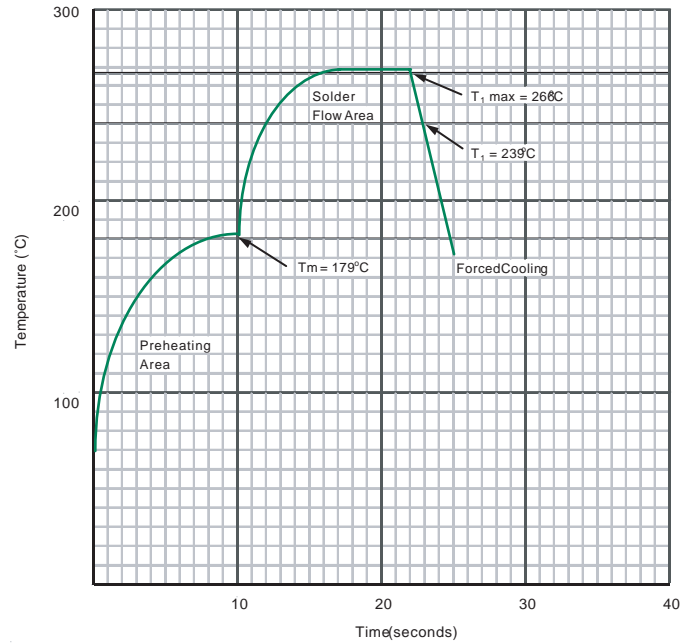
**RoHS** **Pb** **Greentube™ SL1021B Series Gas Plasma Arresters**



**Profile for reflow soldering**



**Profile for wave soldering**



**Notes:**

- T<sub>1 max</sub> = Maximum Tab Temperature = 266°C
- T<sub>1</sub> = Flow Temperature of Solder = 239°C
- T<sub>m</sub> = Melting Point of Solder = 179°C
- T<sub>amb</sub> = 25°C
- Maximum permissible rate of temperature change = °C / sec