

Gas Discharge Tubes

High Performance Beta Range

RoHS Greentube™ SL1021B Series Gas Plasma Arresters



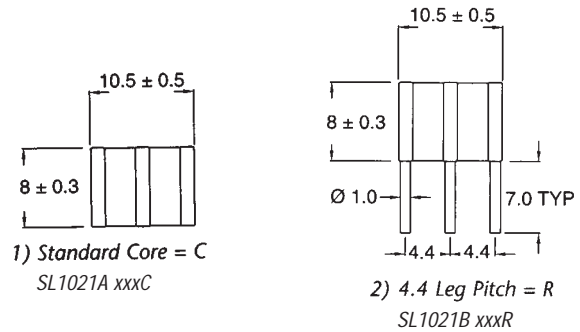
The SL1021B series offers high levels of performance on fast rising transients in the domain of 100V/μs to 1KV/μs, which are those most likely from induced Lightning disturbances. The SL1021B series also features ultra low capacitance (typically 1pF or less) and optimised internal geometry which provides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

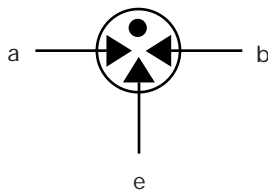
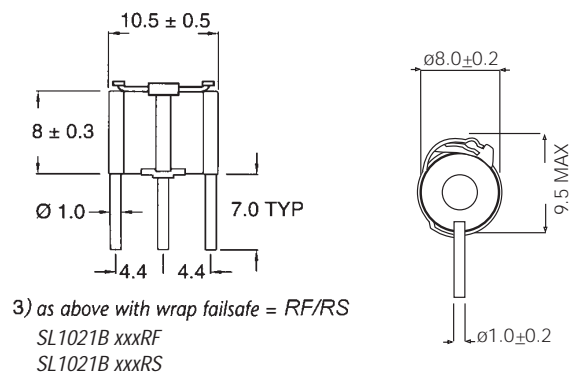
- RoHS compliant except 'RS' suffix
- Low insertion loss
- Excellent response to fast rising transients.
- Ultra low capacitance.
- 10KA surge capability tested with 8/20μs pulse as defined by IEC 6100-4-5
- 20,000 A single shot surge capability tested with 8/20μs pulse as defined by IEC 6100-4-5
- Available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

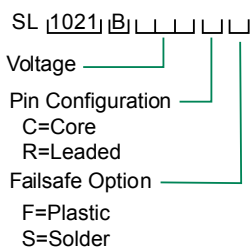


All dimensions in mm



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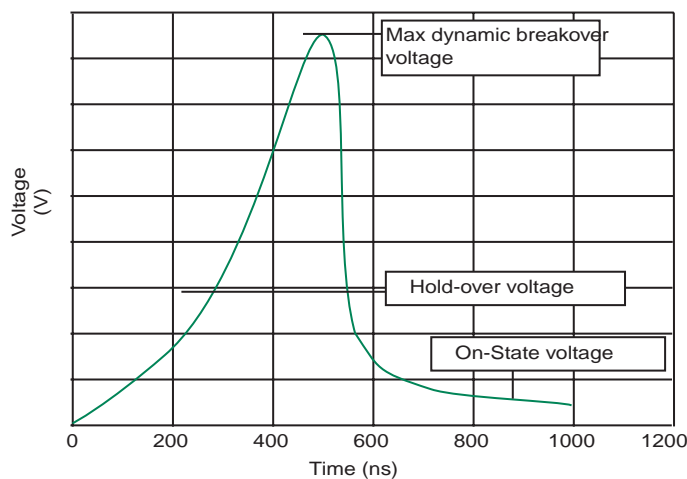
LITTELFUSE 3 TERMINAL HEAVY DUTY ARRESTER SERIES
TOTALLY NON-RADIOACTIVE, UL RECOGNIZED

| Part Number | DC Voltage @ 100V/sec (V) | DC Breakover Voltage Min-Max (V) | Max Dynamic Breakover Voltage @ 100V/μs | Max Alternating Discharge Current ^{1,3,6} (A) | Max Alternating Discharge Current ⁵ (A) | Max Repetitive Impulse Discharge Current (kA) | Max Impulse Discharge Current (kA) | Max Single Impulse Discharge Current 10/350μs ^{5,6} (kA) | Life Test Rating ² |
|-------------|---------------------------|----------------------------------|---|--|--|---|------------------------------------|---|-------------------------------|
| 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 |

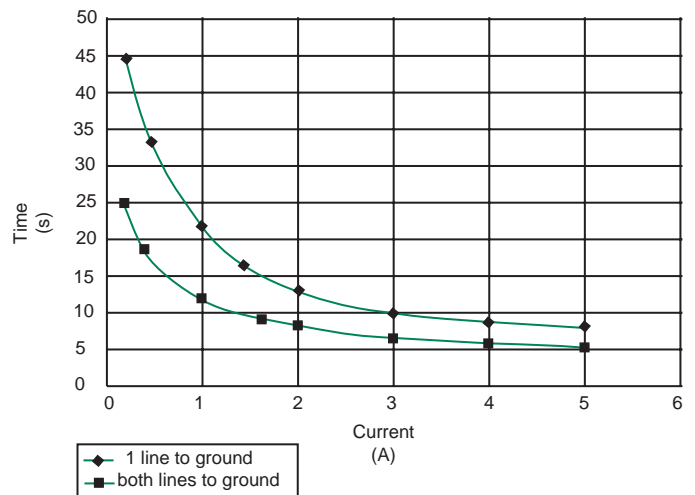
GAS DISCHARGE TUBES

- (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



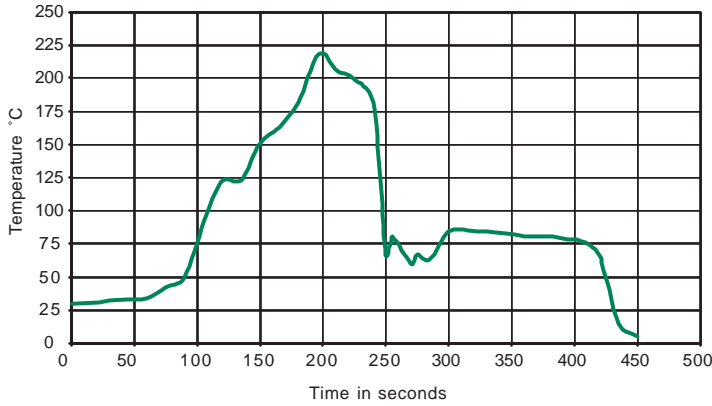
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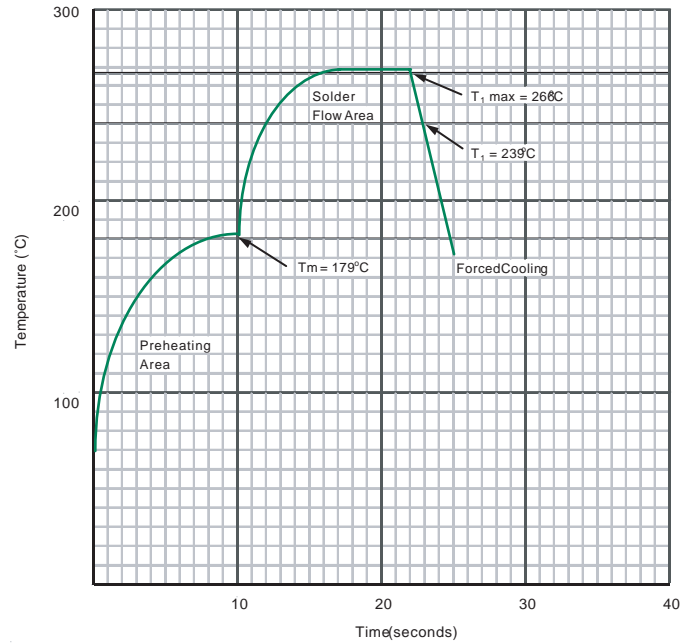
RoHS **Pb** **Greentube™ SL1021B Series Gas Plasma Arresters**



Profile for reflow soldering



Profile for wave soldering



Notes:

- T_{1 max} = Maximum Tab Temperature = 266°C
- T₁ = Flow Temperature of Solder = 239°C
- T_m = Melting Point of Solder = 179°C
- T_{amb} = 25°C
- Maximum permissible rate of temperature change = °C / sec