

# Gas Discharge Tubes

## Omega Range

### RoHS Greentube™ SL1024B Series Gas Plasma Arresters



The SL1024B series offers high levels of current handling on fast rising transients created by induced Lightning disturbances. These devices are extremely robust and are able to divert pulses of 20,000 Amps. The SL1024B also features ultra low capacitance (typically 1pF or less) making them ideal for the protection of high-speed transmission equipment.

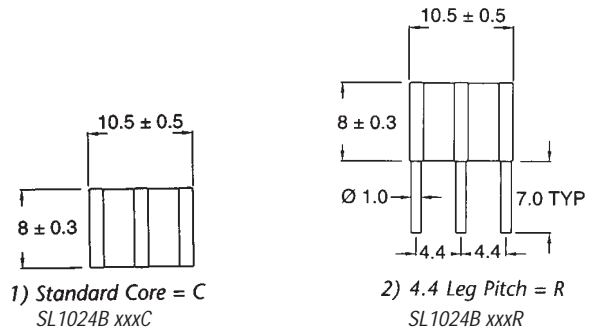
#### FEATURES

- RoHS compliant except 'RS' suffix
- Low insertion loss
- Excellent response to fast rising transients.
- Ultra low capacitance.
- 20KA 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)

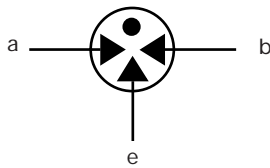


#### Applications:

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



All dimensions in mm



3 ELECTRODE GDT

a=TIP

b=RING

e=GROUND  
(centre electrode)

GRAPHICAL SYMBOL

#### ORDERING INFORMATION

SL 1024 B

Voltage

Pin Configuration

C=Core

R=Leaded

Failsafe Option

F=Plastic

S=Solder

3) as above with wrap failsafe = RF  
SL1024B xxxRF

#### 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. Red.

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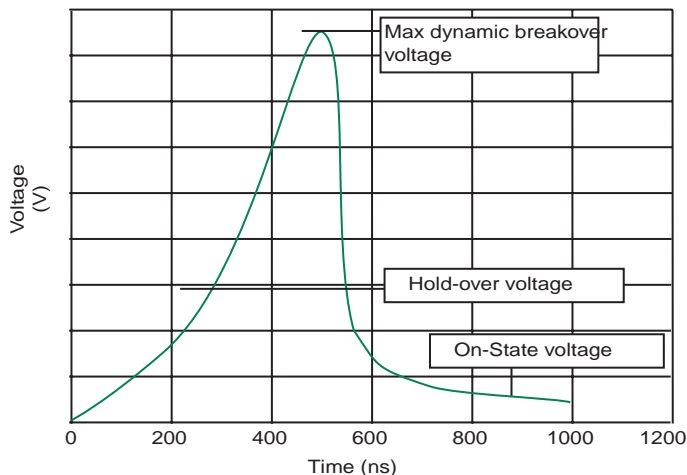
## RoHS Greentube™ SL1024B Series Gas Plasma Arresters

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

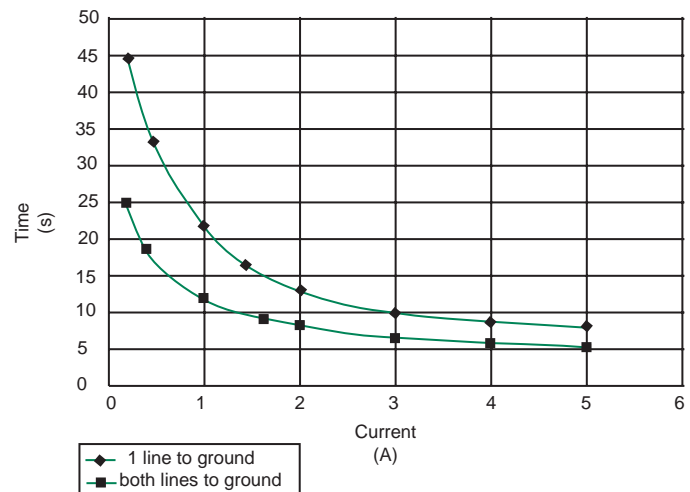
Part Number	DC Voltage (V)	DC Breakover Voltage Min-Max <sup>7</sup> @ 100V/sec (V)	Max Dynamic Breakover Voltage @ 100/μs (V)	Alternating Discharge Current <sup>1,3</sup> (A)	Alternating Discharge Current <sup>5,3</sup> (A)	Max Repetitive Impulse Discharge Current 8/20μs <sup>1,4</sup> (kA)	Max Single Impulse Discharge Current 8/20μs <sup>1,6</sup> (kA)	Max Single Impulse Discharge Current 10/350μs <sup>5,2</sup> (kA)
SL1024B090	90	70-120	600	20	10	20	40	2.5
SL1024B145	145	116-174	500	20	10	20	40	2.5
SL1024B150	150	120-180	500	20	10	20	40	2.5
SL1024B230	230	184-276	350	20	10	20	40	2.5
SL1024B250	250	200-300	400	20	10	20	40	2.5
SL1024B260	260	210-310	420	20	10	20	40	2.5
SL1024B300	300	240-360	450	20	10	20	40	2.5
SL1024B350	350	280-420	500	20	10	20	40	2.5
SL1024B400	400	320-480	600	20	10	20	40	2.5
SL1024B420	420	345-500	650	20	10	20	40	2.5
SL1024B450	450	360-540	650	20	10	20	40	2.5
SL1024B500	500	400-500	700	20	10	20	40	2.5

- (1) Total current through centre (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**



GAS DISCHARGE TUBES

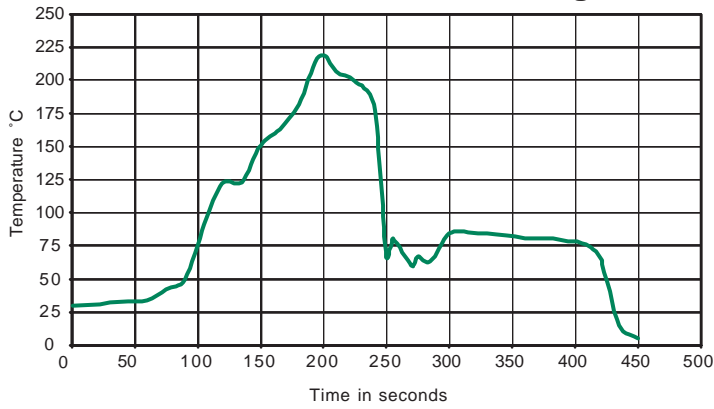
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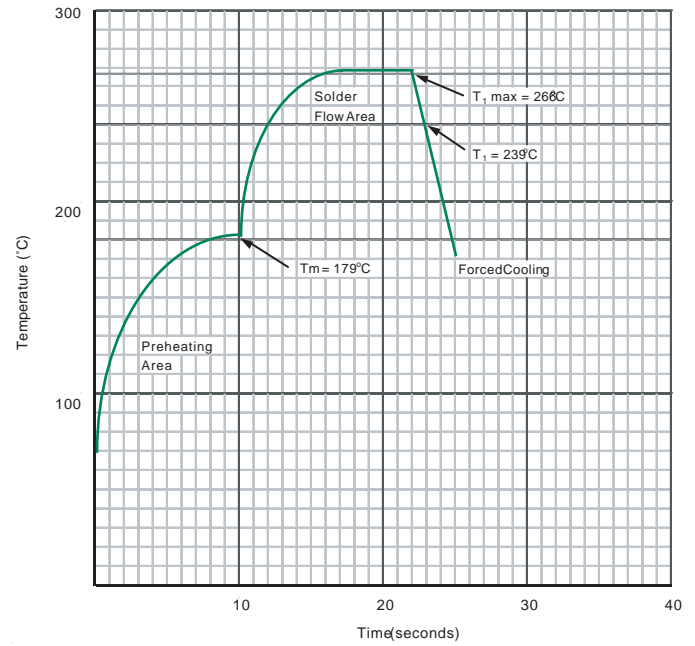
## RoHS Greentube™ SL1024B Series Gas Plasma Arresters



**Profile for reflow soldering**



**Profile for wave soldering**



**Notes:**

- $T_1 \text{ max}$  = Maximum Tab Temperature =  $266^\circ\text{C}$
- $T_1$  = Flow Temperature of Solder =  $239^\circ\text{C}$
- $T_m$  = Melting Point of Solder =  $179^\circ\text{C}$
- $T_{\text{amb}}$  =  $25^\circ\text{C}$

1. Maximum permissible rate of temperature change =  $^\circ\text{C} / \text{sec}$
2. Not for RF style devices