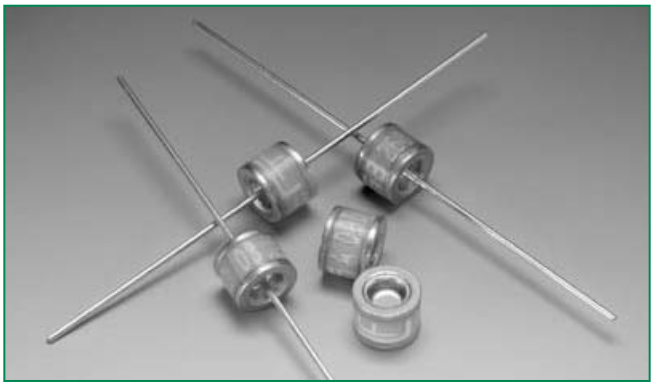
# SL1011A Series Gas Plasma Arrester



## Description

The SL1011A series provides high levels of protection against fast rising transients in the 100V/µs to 1kV/µs range usually caused by lightning disturbances.

The SL1011A series also features ultra low capacitance (typically 1pF or less) making them ideal for the protection of high-speed transmission equipment. These devices are extremely robust and are able to divert a 5,000A pulse without destruction.

## Features

- RoHS compliant
- Low insertion loss
- Excellent response to fast rising transients.
- Ultra low capacitance.
- 5KA 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

## Agency Approvals

| AGENCY | AGENCY FILE NUMBER |
|---|---|
| | E128662 |

## 2 Electrode GDT Graphical Symbol

## Applications

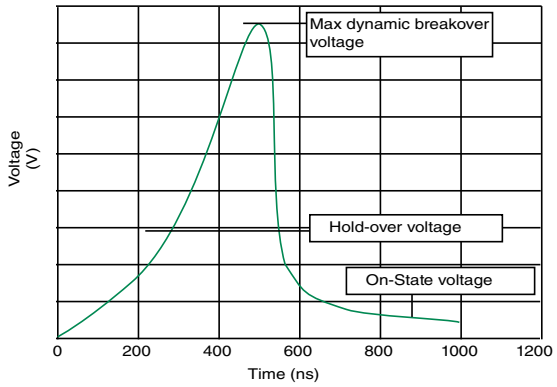
- Broadband equipment.
- ADSL equipment.
- XDSL equipment.
- Satellite and CATV equipment.
- General telecom equipment.

## Electrical Characteristics

| Part Number* | DC Breakover Voltage @100 V/s Volts ($V_{BR}$) | | | MAX Dynamic Breakover Voltage @100 V/µs[1] Volts ($V_{BR}$) | AC Discharge Current[2] Volts | Max Repetitive Impulse Current[3] kAmps | Max Single Impulse Current | | Leakage Current[4] nAmps | Holdover Voltage[5] Volts |
|---|---|---|---|---|---|---|---|---|---|---|
| | MIN | NOM | MAX | | | | 8/20 µs kAmps | 10/350 µs kAmps | | |
| SL1011A075 | 60 | 75 | 90 | 500 | 10 | 10 | 20 | 2.5 | 50 | 50 |
| SL1011A090 | 72 | 90 | 108 | 500 | 10 | 10 | 20 | 2.5 | 50 | 50 |
| SL1011A145 | 116 | 145 | 174 | 500 | 10 | 10 | 20 | 2.5 | 50 | 50 |
| SL1011A150 | 120 | 150 | 180 | 500 | 10 | 10 | 20 | 2.5 | 50 | 50 |
| SL1011A230 | 184 | 230 | 276 | 550 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A250 | 200 | 250 | 300 | 600 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A260 | 210 | 260 | 310 | 600 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A350 | 280 | 350 | 420 | 800 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A400 | 320 | 400 | 480 | 850 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A470 | 376 | 470 | 564 | 1000 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A500 | 400 | 500 | 500 | 1100 | 10 | 10 | 20 | 2.5 | 100 | 135 |
| SL1011A600 | 480 | 600 | 720 | 1200 | 10 | 10 | 20 | 2.5 | 100 | 135 |

NOTES:
*Max capacitance is 1.5 pF, measured at 1 MHz, zero volt bias
1. Comparable to the silicon measurement Switching Voltage (Vs)
2. 10 shots, AC 60Hz, 1s duration
3. 10 shots, 8/20µs waveform per IEC 61000-4-5
4. Measured at 100V, except 90VDC devices wich are measured at 50V
5. Tested according to ITU-T Rec. K.12

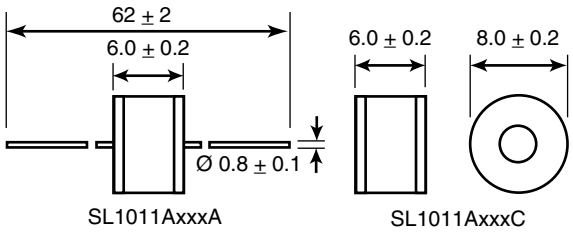
## Voltage vs. Time Characteristic




## Physical Specifications:

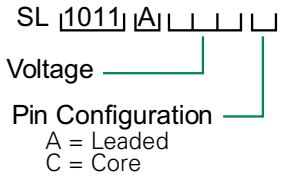
| | |
|---|---|
| **Weight** | 1.5g (0.053 oz.) |
| **Materials:** | Core: Dull tin based on nickel<br>Leaded device core: nickel plating<br>Lead wire: Hot dip tin |
| **Device Marking:** | Littelfuse 'LF' mark, voltage and date code. |

## Dimensions

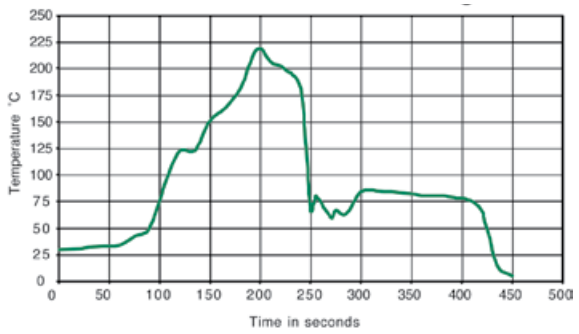



All dimensions in mm

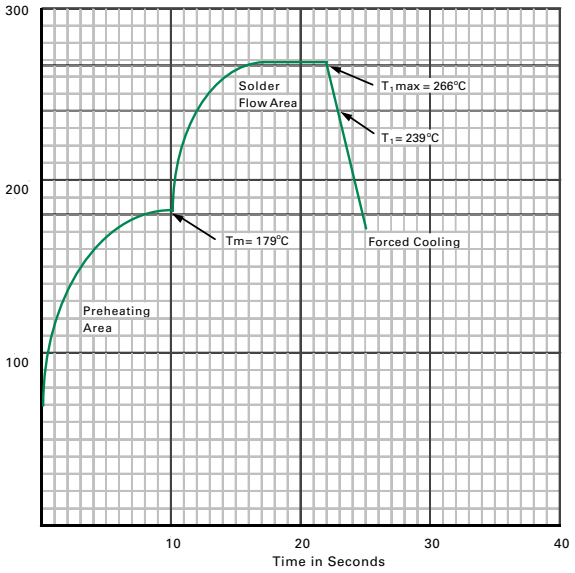
## Part Numbering System




## Profile for Reflow Soldering




## Profile for Wave Soldering




$T_1$ max = Maximum Tab Temperature = 266°C
$T_1$ = Flow Temperature = 239°C
$T_m$ = Melting Point of Solder = 179°C
$T_{amb}$ = Ambient Temperature = 25°C

Maximum permissable rate of temperature change = °C / sec