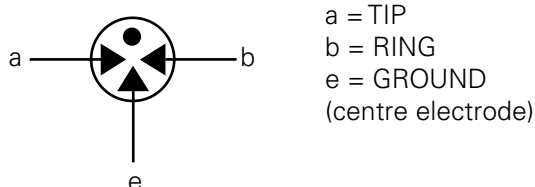


## SL1026 Series



### 3 Electrode GDT Graphical Symbol



### Additional Information



Datasheet



Resources



Samples

### Description

The SL1026 Series is a heavy-duty transient suppressor using Gas Plasma technology. In response to transients that exceed the device's breakover voltage, the device changes from a very high impedance state to a low impedance state to conduct harmful current away from the protected system. The SL1026 is designed to protect electrical and electronic equipment such as communications, control and railway systems. Carefully designed geometry ensures against short circuiting if a failure occurs due to conditions and events beyond the design criteria. Optional electrical mounting clip (part SL1053 ) is available to aid mounting and connection.

### Features

- RoHS compliant
- 55 kA surge capability (single shot) tested with 8/20μS pulse as defined by IEC 61000-4-5
- 40 kA surge capability (repetitive)
- Will protect against Trapezoidal waveforms as specified in RIA 12.
- Will protect against capacitor discharge voltage transient waveforms as specified in RIA 12.
- Will protect against double exponential voltage transient waveforms as specified in IEC 571.

### Applications

- Signaling equipment.
- Communication equipment
- Control gear.
- Trackside cabinets.
- Cell phone base stations

### Electrical Characteristics

| Part Number* | DC Voltage<br>100 V/sec |     | DC<br>Voltage<br>1kV/μs | <sup>1</sup> AC<br>Current<br>9 cycles<br>@ 50-60Hz<br>(Amps) | <sup>1</sup> AC<br>Current<br>50Hz<br>1 sec x10<br>(Amps) | <sup>1</sup> Surge<br>Current<br>8/20μSec<br>x 10<br>(kAmps) | <sup>1,2</sup> Max<br>Single<br>Surge<br>8/20μSec<br>(kAmps) | <sup>1</sup> Max Single<br>Surge<br>10/350μSec<br>(kAmps) | <sup>1</sup> 150(+) and 150(-)<br>10/1000μSec<br>(Amps) |
|--------------|-------------------------|-----|-------------------------|---------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------|
|              | MIN                     | MAX |                         |                                                               |                                                           |                                                              |                                                              |                                                           |                                                         |
| SL1026-275   | 200                     | 350 | 800                     | 200                                                           | 10                                                        | 20                                                           | 40                                                           | 8                                                         | 200                                                     |
| SL1026-400   | 300                     | 500 | 900                     | 200                                                           | 10                                                        | 20                                                           | 40                                                           | 8                                                         | 200                                                     |
| SL1026-700   | 560                     | 840 | 1300                    | 200                                                           | 10                                                        | 20                                                           | 40                                                           | 8                                                         | 200                                                     |

#### NOTES:

End of life limits

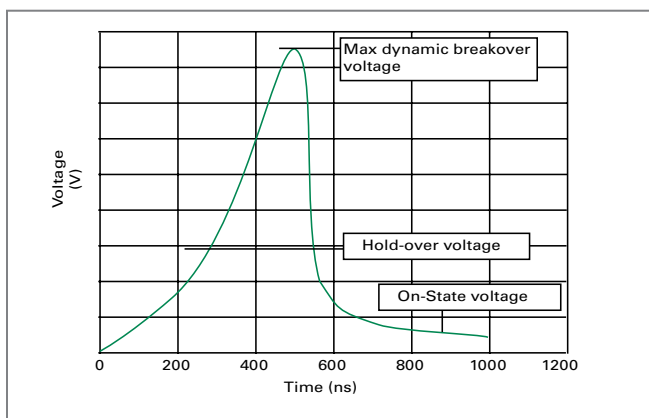
– DC: 50% of minimum initial DC breakdown voltage limit to 150% of maximum initial DC breakdown voltage limit.

– Impulse: less than 150% of initial impulse breakdown voltage limit.

1. Total current through center electrode, tested using SL1053B-NL holder

2. Exceeds capability of SL1053B-NL holder

### Voltage vs. Time Characteristic



### Electrical Specifications

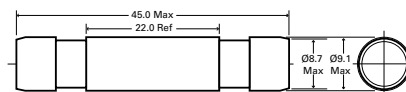
|                                        |                                                                      |
|----------------------------------------|----------------------------------------------------------------------|
| <b>Insulation Resistance</b>           | > 10GΩ at 100 Volts                                                  |
| <b>Capacitance:</b>                    | <=2.5pf, 1MHz 0 Volts Bias                                           |
| <b>Holdover Voltage:</b>               | <150mS, tested at 130 volts according to ITU-T Rec. K.12 & REA PE 80 |
| <b>Arc Voltage:</b>                    | ~35 Volts, On State Voltage at 1 Amp (Depending on Voltage Type)     |
| <b>Glow to Arc Transition Current:</b> | ~1 Amp                                                               |
| <b>Glow Voltage:</b>                   | > 150 Volts, depending on Voltage Type                               |

### Physical Specifications

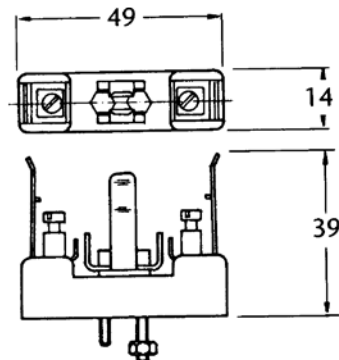
|                                           |                                                                                                  |
|-------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Weight:</b>                            | 11g (0.388 oz.)                                                                                  |
| <b>Materials:</b>                         | Electrode Base: Nickel Iron Alloy<br>Electrode Plating: Nickel<br>Body: Ceramic                  |
| <b>Part Marking:</b>                      | Color coded body<br>SL1026-275: Black/Black<br>SL1026-400: Black/Yellow<br>SL1026-700: Black/Red |
| <b>Storage and Operating Temperature:</b> | -40°C to +90°C                                                                                   |

### Product Dimensions

#### SL1026 GDT Series Profile



#### Type 1053 Holder Profile



All dimensions in mm

### Part Numbering System

SL 1026          

Voltage          

### Packaging

GDT devices are provided as bulk pack in poly bag – 20 pieces per bag and 5 bags per carton.