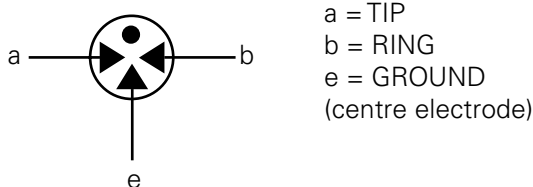




### 3 Electrode GDT Graphical Symbol



### Additional Information



Datasheet



Resources



Samples

### Description

The SL1026 Series is a heavy-duty transient suppresser 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 8/20 $\mu$ S 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 100 V/sec		DC Voltage 1kV/ $\mu$ s	<sup>1</sup> AC Current 9 cycles @50-60Hz (Amps)	<sup>1</sup> AC Current 50Hz 1 sec x10 (Amps)	<sup>1</sup> Surge Current 8/20 $\mu$ Sec x 10 (kAmps)	<sup>1,2</sup> Max Single Surge 8/20 $\mu$ Sec (kAmps)	<sup>1</sup> Max Single Surge 10/350 $\mu$ Sec (kAmps)	<sup>1</sup> 150(+) and 150(-) 10/1000 $\mu$ Sec (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

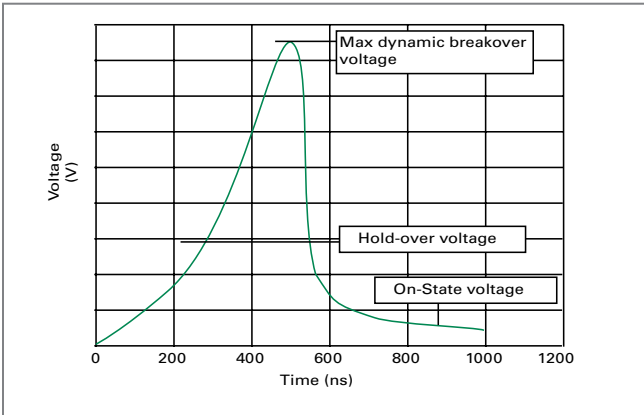
– DC: 50% of minimum initial DC breakdown voltage limit to 150% of maximum initial DC breakdown voltage limit.

– 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**

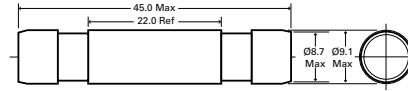
<b>Insulation Resistance</b>	> 10GΩ at 100 Volts
<b>Capacitance:</b>	<=2.5pf, 1MHz 0 Volts Bias
<b>Holdover Voltage:</b>	<150mS, tested at 130 volts according to ITU-T Rec. K.12 & REA PE 80
<b>Arc Voltage:</b>	~35 Volts, On State Voltage at 1 Amp (Depending on Voltage Type)
<b>Glow to Arc Transition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

**Physical Specifications**

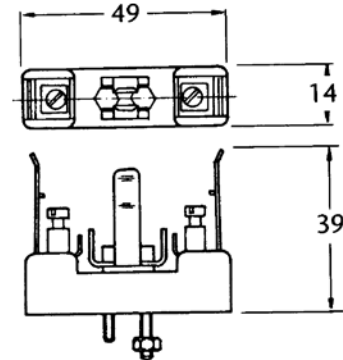
<b>Weight:</b>	11g (0.388 oz.)
<b>Materials:</b>	Electrode Base: Nickel Iron Alloy Electrode Plating: Nickel Body: Ceramic
<b>Part Marking:</b>	Color coded body SL1026-275: Black/Black SL1026-400: Black/Yellow SL1026-700: Black/Red
<b>Storage and Operating Temperature:</b>	-40°C to +90°C

**Product Dimensions**

**SL1026 GDT Series Profile**

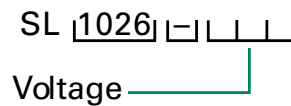


**Type 1053 Holder Profile**



All dimensions in mm

**Part Numbering System**



**Packaging**

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

**Disclaimer Notice** - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at: [www.littelfuse.com/disclaimer-electronics](http://www.littelfuse.com/disclaimer-electronics).