

## Gas Discharge Tube - PG28E-L Series

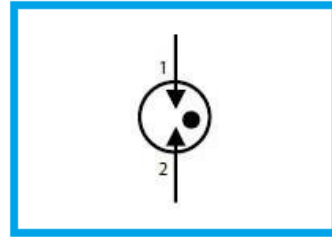
### Features

- DC Spark-over voltage: 75~4000V
- Low Capacitance
- Micro-Gap Design
- Stable breakdown voltage
- RoHS & HF compliant
- High holdover voltage
- High insulation resistance
- Large absorbing transient current capability.



### Applications

- Communication equipment
- Test equipment
- Data lines
- CATV equipment
- Power Supplies
- Telecom SLIC protection
- Telecommunications

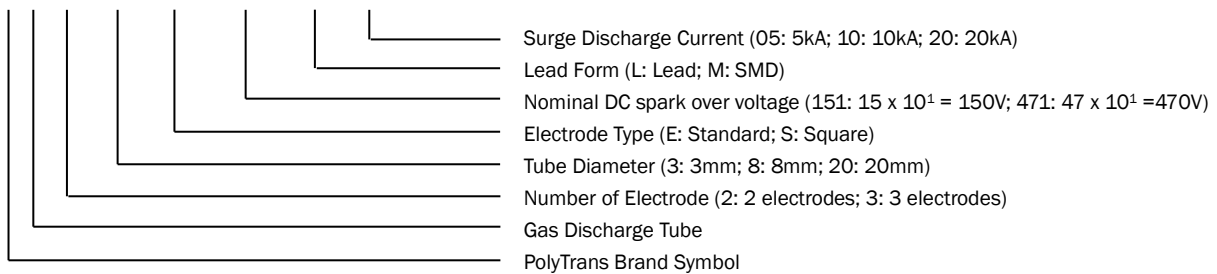


### General Characteristics Definition

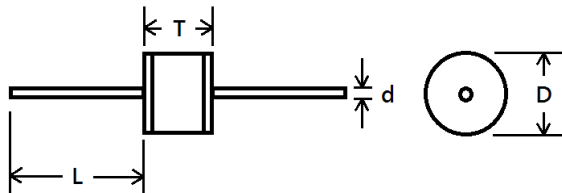
- Operating temperature: -50 ~ 125°C
- Storage temperature: -50 ~ 125°C

### Part Number Code

P G □ □ □ □ □ □ □ □



### Physical Dimensions



Symbol	Dimension (mm)
D	8.0±0.2
T	6.0±0.2
L	≥20.0
d	0.8±0.1

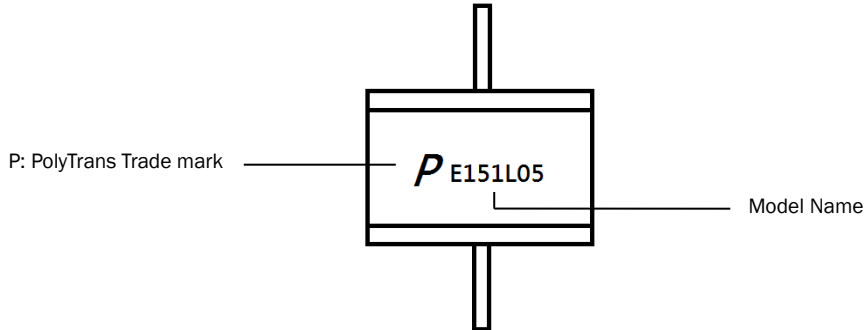
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### Electrical Characteristics

Part Number	DC Spark-over Voltage @ 100V/S	Impulse Spark-over Voltage @ 1kV/ $\mu$ S	Impulse Discharge Current	AC Discharge Current	Minimum Insulation Resistance	Maximum Capacitance @ 1.0 MHz	UL Certificate (E474915) & (E475869)
	(V)		8/20 $\mu$ s 10 Hits (kA)	1s/5 Times (A)			
PG28E075L20	75 $\pm$ 20%	$\leq$ 600	20	20	10	1.0	✓
PG28E091L20	90 $\pm$ 20%	$\leq$ 600	20	20	10	1.0	✓
PG28E151L20	150 $\pm$ 20%	$\leq$ 600	20	20	10	1.0	✓
PG28E201L20	200 $\pm$ 20%	$\leq$ 700	20	20	10	1.0	✓
PG28E231L20	230 $\pm$ 20%	$\leq$ 700	20	20	10	1.0	✓
PG28E301L20	300 $\pm$ 20%	$\leq$ 900	20	20	10	1.0	✓
PG28E351L20	350 $\pm$ 20%	$\leq$ 1000	20	20	10	1.0	✓
PG28E401L20	400 $\pm$ 20%	$\leq$ 1000	20	20	10	1.0	✓
PG28E471L20	470 $\pm$ 20%	$\leq$ 1200	20	20	10	1.0	✓
PG28E075L10	75 $\pm$ 20%	$\leq$ 600	10	10	10	1.0	✓
PG28E091L10	90 $\pm$ 20%	$\leq$ 600	10	10	10	1.0	✓
PG28E151L10	150 $\pm$ 20%	$\leq$ 600	10	10	10	1.0	✓
PG28E201L10	200 $\pm$ 20%	$\leq$ 700	10	10	10	1.0	✓
PG28E231L10	230 $\pm$ 20%	$\leq$ 700	10	10	10	1.0	✓
PG28E301L10	300 $\pm$ 20%	$\leq$ 900	10	10	10	1.0	✓
PG28E351L10	350 $\pm$ 20%	$\leq$ 1000	10	10	10	1.0	✓
PG28E401L10	400 $\pm$ 20%	$\leq$ 1000	10	10	10	1.0	✓
PG28E471L10	470 $\pm$ 20%	$\leq$ 1100	15	10	1	1.5	✓
PG28E601L10	600 $\pm$ 20%	$\leq$ 1400	10	10	10	1.0	✓
PG28E801L10	800 $\pm$ 20%	$\leq$ 1400	10	10	10	1.0	✓
PG28E102L10	1000 $\pm$ 20%	$\leq$ 1700	10	10	10	1.0	✓
PG28E075L05	75 $\pm$ 20%	$\leq$ 600	5	5	10	1.0	✓
PG28E091L05	90 $\pm$ 20%	$\leq$ 600	5	5	10	1.0	✓
PG28E151L05	150 $\pm$ 20%	$\leq$ 600	5	5	10	1.0	✓
PG28E201L05	200 $\pm$ 20%	$\leq$ 700	5	5	10	1.0	✓
PG28E231L05	230 $\pm$ 20%	$\leq$ 700	5	5	10	1.0	✓
PG28E301L05	300 $\pm$ 20%	$\leq$ 900	5	5	10	1.0	✓
PG28E351L05	350 $\pm$ 20%	$\leq$ 1000	5	5	10	1.0	✓
PG28E401L05	400 $\pm$ 20%	$\leq$ 1000	5	5	10	1.0	✓
PG28E471L05	470 $\pm$ 20%	$\leq$ 1200	5	5	10	1.0	✓
PG28E601L05	600 $\pm$ 20%	$\leq$ 1400	5	5	10	1.0	✓
PG28E801L05	800 $\pm$ 20%	$\leq$ 1400	5	5	10	1.0	✓
PG28E102L05	1000 $\pm$ 20%	$\leq$ 1700	5	5	10	1.0	✓
PG28E122L05	1200 $\pm$ 20%	$\leq$ 1900	5	5	10	1.0	✓
PG28E152L05	1500 $\pm$ 20%	$\leq$ 2200	5	5	10	1.0	✓
PG28E202L05	2000 $\pm$ 20%	$\leq$ 2700	5	5	10	1.0	✓
PG28E252L05	2500 $\pm$ 20%	$\leq$ 3500	5	5	10	1.0	✓
PG28E272L05	2700 $\pm$ 20%	$\leq$ 3700	5	5	10	1.0	✓
PG28E302L03	3000 $\pm$ 20%	$\leq$ 4000	3	3	10	1.0	✓
PG28E362L03	3600 $\pm$ 20%	$\leq$ 4600	3	3	10	1.0	✓
PG28E402L03	4000 $\pm$ 20%	$\leq$ 5000	3	3	10	1.0	✓

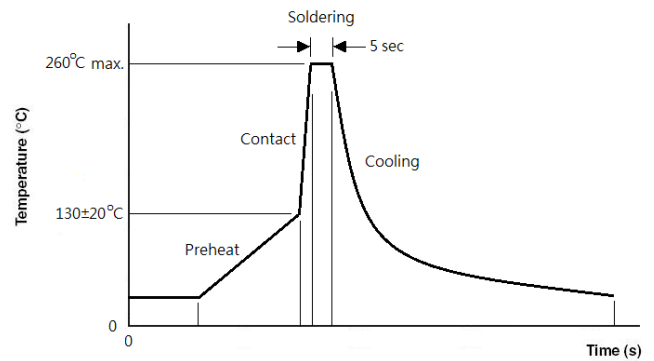
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### Marking Definitions



### Lead Free Wave Soldering Recommendations

Preheat	
- Temperature Min (T <sub>smin</sub> )	110°C
- Temperature Max (T <sub>smax</sub> )	150°C
- Time (T <sub>smin</sub> to T <sub>smax</sub> )	30-90 seconds
- Average Ramp-Up Rate	1~3°C/second
Peak Temperature	260°C
Max Time at Peak Temperature	5 seconds
Ramp-Down Rate	5 °C /second max.



**Note:** If the wave soldering temperatures exceed the recommended profile, devices may not meet the performance requirements.

### Packaging Information

Part Number	Quantity	
	EA/Tray	EA/Carton
PG28E-L Series	100	5000