

# DATA SHEET

## GAS DISCHARGE TUBES TELEPHONE INTERFACE

4532 series

RoHS compliant & Halogen free



Product specification— November 05, 2018 V.0



## Gas Discharge Tube (GDT) Data Sheet

### Features

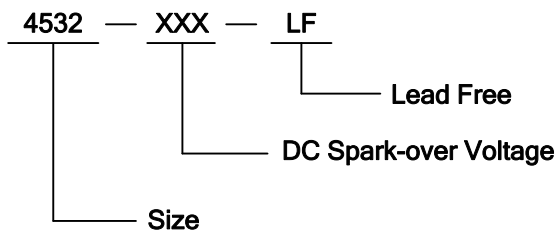
- High insulation resistance.
- Low capacitance ( $\leq 0.5\text{pF}$ ).
- 2000A 8/20 $\mu\text{s}$  maximum surge current capacity in accordance with IEC61000-4-5.
- 4KV 10/700 $\mu\text{s}$  maximum surge rating in accordance with ITU-TK.21
- Surface mounted gas arrester
- Micro-Gap Design
- Size 4532(1812)
- Storage and operating temperature:  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Meets MSL level 1, per J-STD-020
- Safety certification: E244458



### Applications

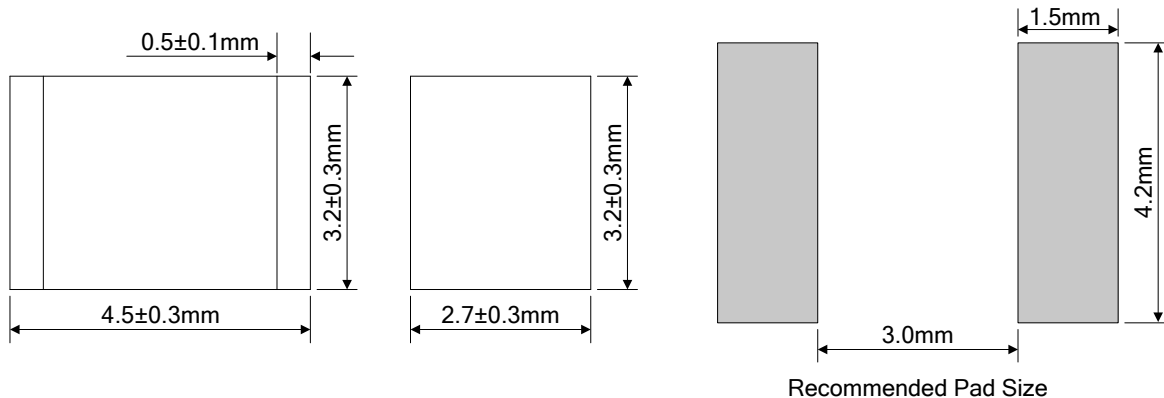
- Repeaters, Modems.
- Telephone Interface, Line cards.
- Data communication equipment.
- Line test equipment

### Part Number Code and Marking



**090: Device Marking Code**

### Dimensions



## Electrical Characteristics

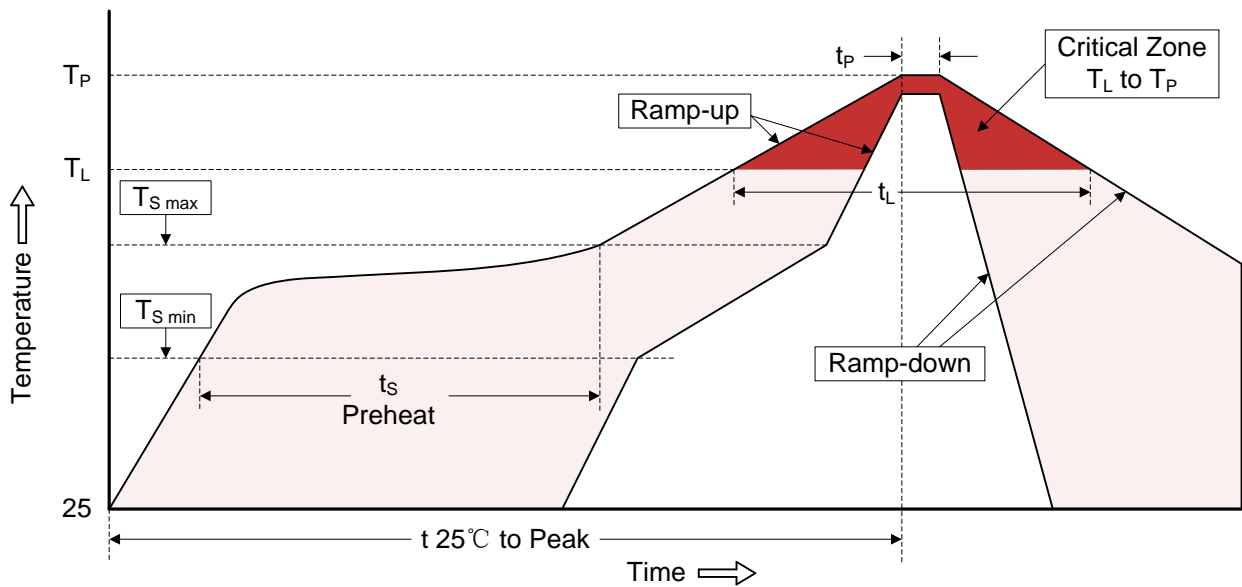
Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Impulse Life Test	Minimum Insulation Resistance		Maximum Capacitance	Nominal Impulse Discharge Current	Impulse Withstanding Voltage Capacity	Device Marking Code
	100V/s	1KV/ $\mu$ s	8/20 $\mu$ s 100A	Test Voltage	(G $\Omega$ )	(1MHz 1V)	8/20 $\mu$ s		
	(V)	(V)	(Times)	DC(V)		(pF)	(A)		
4532-075-LF	55~95	600	300	25	1	0.5	2000	10/700 $\mu$ s 4kV $\pm$ 5 Times	075
4532-091-LF	63~117	700	300	50	1	0.5	2000		090
4532-121-LF	84~156	700	300	50	1	0.5	2000		120
4532-151-LF	105~195	700	300	50	1	0.5	2000		150
4532-201-LF	140~260	750	300	100	1	0.5	2000		200
4532-231-LF	161~299	750	300	100	1	0.5	2000		230
4532-301-LF	210~390	900	300	100	1	0.5	2000		300
4532-351-LF	245~455	900	300	100	1	0.5	2000		350
4532-401-LF-	280~520	1000	300	100	1	0.5	2000		400
4532-401-LF-M	320~480	1000	300	100	1	0.5	2000		400
4532-421-LF	294~546	1000	300	100	1	0.5	2000		420
4532-471-LF	329~611	1000	300	100	1	0.5	2000		470
4532-501-LF	350~650	1100	300	100	1	0.5	2000		500
4532-601-LF	420~780	1200	300	100	1	0.5	2000		600

## Electrical Ratings

Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$ .	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$ .	
Insulation Resistance	The resistance of gas tube shall be measured between two electrodes.	
Capacitance	The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz	
Impulse Discharge Current	Maximum 8/20 $\mu$ s surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval tim.	
Impulse Withstanding Voltage	The maximum 10/700 $\mu$ s surge that can be applied to the Gas Tube, 5 positive and 5 negative surges, with 1 minute interval time, without causing the DC spark-over voltage to change more than 25% from its initial value.	

**Recommended Soldering Conditions**

Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate ( $T_L$ to $T_P$ )	3°C/second max.
Preheat -Temperature Min ( $T_{S\ min}$ ) -Temperature Max ( $T_{S\ max}$ ) -Time (min to max) ( $t_s$ )	150°C 200°C 60-180 seconds
$T_{S\ max}$ to $T_L$ -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature ( $T_L$ ) -Time ( $t_L$ )	217°C 60-150 seconds
Peak Temperature ( $T_P$ )	260°C
Time within 5°C of actual Peak Temperature ( $t_p$ )	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

**Packaging**

Tape	Dimension (mm)		
	Spec.	Tolerance	
	W	12.00	±0.20
	P0	4.00	±0.10
	P1	8.00	±0.20
	P2	2.00	±0.10
	D0	1.45	±0.10
	D1	1.00	±0.10
	E	1.75	±0.10
	F	5.50	±0.10
	A0	3.80	±0.10
	K0	3.20	±0.10
	B0	4.90	±0.10
	t0	0.40	±0.10
	D	330.00	±1.00
	d	13.00	±0.50
	L	16.00	±0.50
	t	2.00	±0.20
	Quantity: 2500pcs		

Reel	Dimension (mm)		
	D	330.00	±1.00
	d	13.00	±0.50
	L	16.00	±0.50
	t	2.00	±0.20
	Quantity: 2500pcs		