

DATA SHEET

GAS DISCHARGE TUBES TELEPHONE INTERFACE

B32 series

RoHS compliant & free



Product specification— February 20, 2024 V.1



Gas Discharge Tube (GDT) Data Sheet

Features

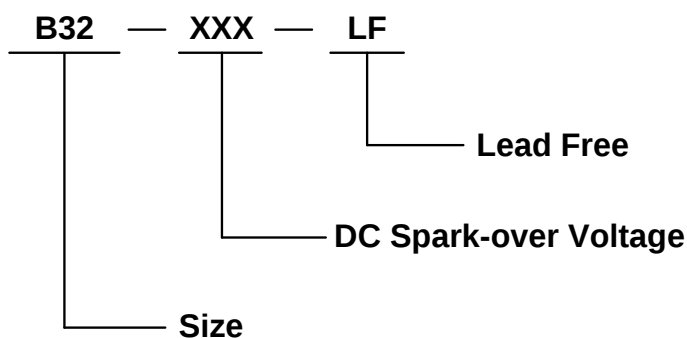
- High insulation resistance
- Low capacitance ($\leq 0.5\text{pF}$)
- 500A 8/20 μs maximum surge current capacity in accordance with IEC61000-4-5
- 4KV 10/700 μs maximum surge rating in accordance with ITU-TK.21
- Surface mounted gas arrester
- Micro-Gap Design
- Size 3216(1206)
- Storage and operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Meets MSL level 1, per J-STD-020
- Safety certification: UL



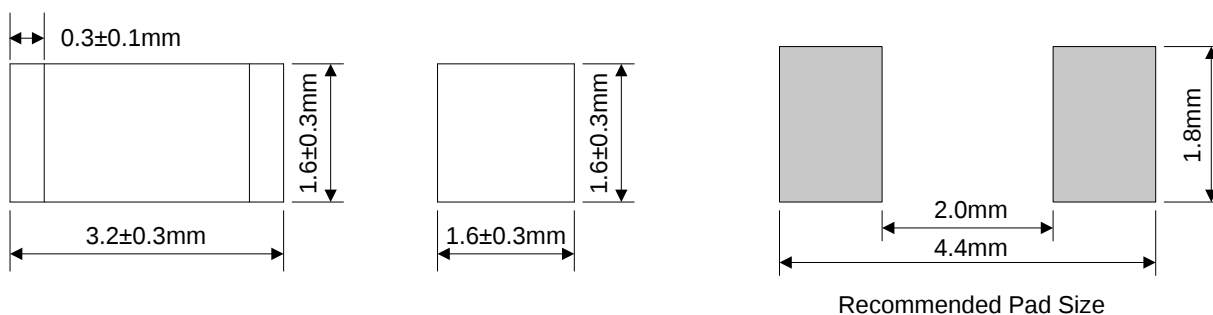
Applications

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

Part Number Code



Dimensions



Electrical Characteristics

Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Minimum Insulation Resistance		Maximum Capacitance	Nominal Impulse Discharge Current	Impulse Withstanding Voltage Capacity	Device Marking Code
	100V/s	1000V/ μ s	Test Voltage	(G Ω)	(1MHz)	8/20 μ s 10 Times	10/700 μ s 10 Times	
	(V)	(V)	DC(V)		(pF)	(A)	(KV)	
B32-150-LF	150 $\pm$ 30%	750	50	1	0.5	500	4	None
B32-200-LF	200 $\pm$ 30%	900	100	1	0.5	500	4	None
B32-230-LF	230 $\pm$ 30%	950	100	1	0.5	500	4	None
B32-300-LF	300 $\pm$ 30%	1000	100	1	0.5	500	4	None
B32-350-LF	350 $\pm$ 30%	1100	100	1	0.5	500	4	None
B32-400-LF	400 $\pm$ 30%	1100	100	1	0.5	500	4	None
B32-420-LF	420 $\pm$ 30%	1200	100	1	0.5	500	4	None
B32-470-LF	470 $\pm$ 30%	1200	100	1	0.5	500	4	None

Electrical Ratings

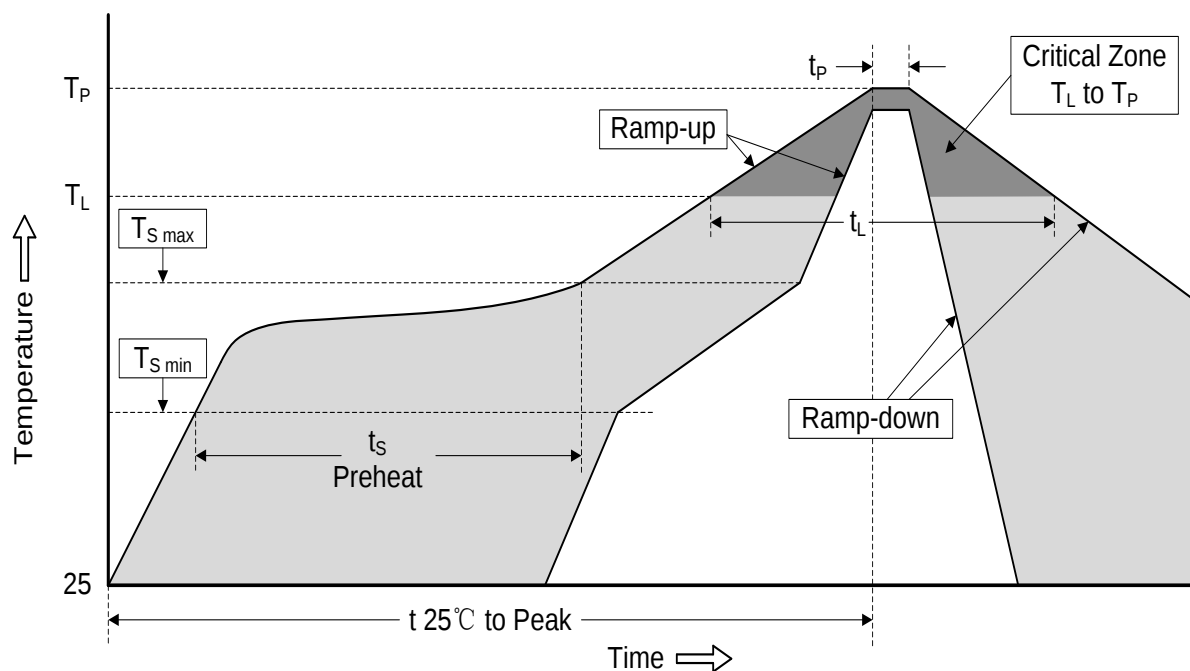
Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$.	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$.	
Insulation Resistance	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 μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time.	
Impulse Withstanding Voltage	The maximum 10/700 μs surge that can be applied to the Gas Tube, 5 positive and 5 negative surges, with 1 minute interval time.	

Reliability

Items	Test conditions / Methods	Standard
Cold Resistance	Measurement after -40°C /1000 HRS & normal temperature/2 HRS.	Features are conformed to rated spec.
Heat Resistance	Measurement after 125°C /1000 HRS & normal temperature/2 HRS.	
Humidity Resistance	Measurement after humidity $90\sim 95^{\circ}\text{C}(45^{\circ}\text{C})$ /1000 HRS & normal temperature/2 HRS.	
Temperature Cycle	10 times repetition of cycle $-40^{\circ}\text{C}/30\text{min}$ $\rightarrow$ normal, temp/2 min $\rightarrow 125^{\circ}\text{C}/30\text{min}$, measurement after normal temp/2 HRS.	
Solder Ability	Check for solder adhesion after $260\pm 5^{\circ}\text{C}$ for 3sec , The body immersion depth 1.5mm in molten solder	Evenly covered by solder.
Solder Heat	Measurement after $260\pm 5^{\circ}\text{C}$ solder for 10sec, The body immersion depth 1.5mm in molten solder	Conformed to rated spec.

Recommended Soldering Conditions

Reflow Soldering

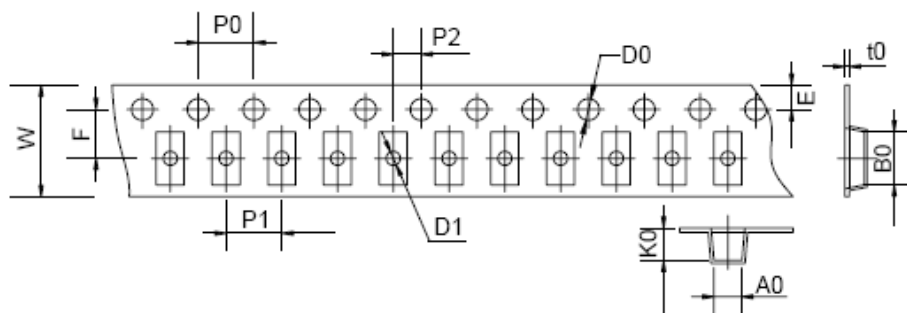


Recommended Conditions

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) (ts)	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.

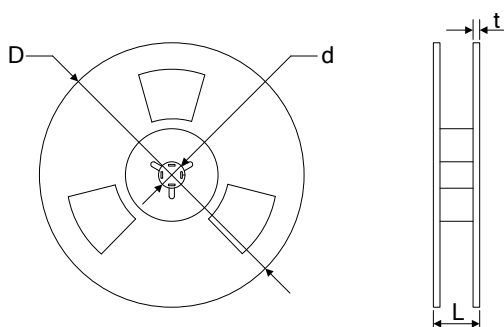
Packaging

Tape



Items	Dimension (mm)	
	Spec.	Tolerance
W	8.00	±0.20
P0	4.00	±0.10
P1	4.00	±0.10
P2	2.00	±0.10
D0	1.55	±0.05
D1	1.00	±0.05
E	1.75	±0.10
F	3.50	±0.10
A0	2.00	±0.10
K0	2.00	±0.10
B0	3.80	±0.10
t0	0.30	±0.10

Reel



D	170.00	±2.00
d	13.00	±0.50
L	12.00	±2.00
t	1.20	±0.20

Quantity: 2500pcs

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