

Gas Discharge Tube (GDT) Data Sheet

Features

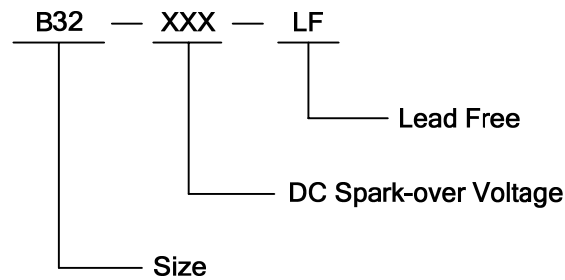
- High insulation resistance.
- Low capacitance ($\leq 0.5\text{pF}$).
- 500A 8/20 μs maximum surge current capacity in accordance with IEC61000-4-5.
- 4KV 10/700 μs maximum surge rating in accordance with ITU-TK.21
- Surface mounted gas arrester
- Micro-Gap Design
- Size 3216(1206)
- Storage and operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Meets MSL level 1, per J-STD-020
- Safety certification: UL: E244458



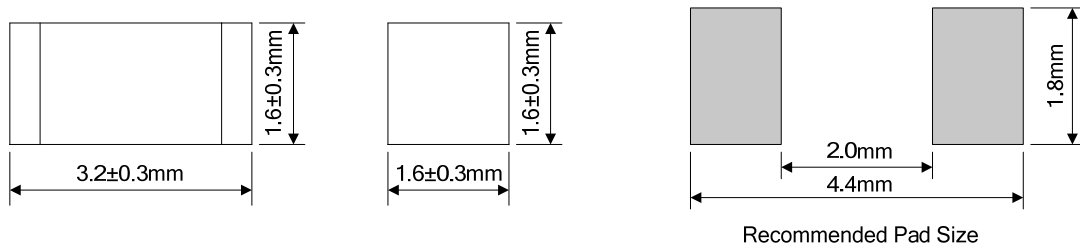
Applications

- 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
	100V/s	1000V/ μ s	Test Voltage	(M Ω)	(1MHz)	8/20 μ s	
	(V)	(V)	DC(V)		(pF)	(A)	
B32-150-LF	150 \pm 30%	750	50	1000	0.5	500	10/700 μ s 4kV \pm 5 Times
B32-230-LF	230 \pm 30%	950	100	1000	0.5	500	
B32-300-LF	300 \pm 30%	950	100	1000	0.5	500	
B32-350-LF	350 \pm 30%	950	100	1000	0.5	500	
B32-400-LF	400 \pm 30%	1050	100	1000	0.5	500	
B32-420-LF	420 \pm 30%	1050	100	1000	0.5	500	
B32-470-LF	470 \pm 30%	1050	100	1000	0.5	500	

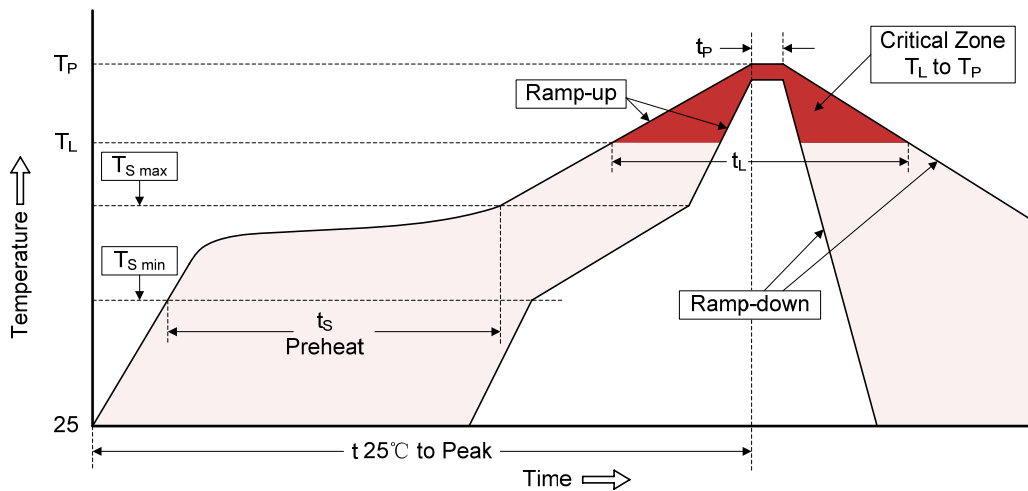
Electrical Ratings

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 μ s surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time, without causing the DC spark-over voltage to change more than 30% from its initial value.	
Impulse Withstanding Voltage	The maximum 10/700 μ 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.	

Reliability

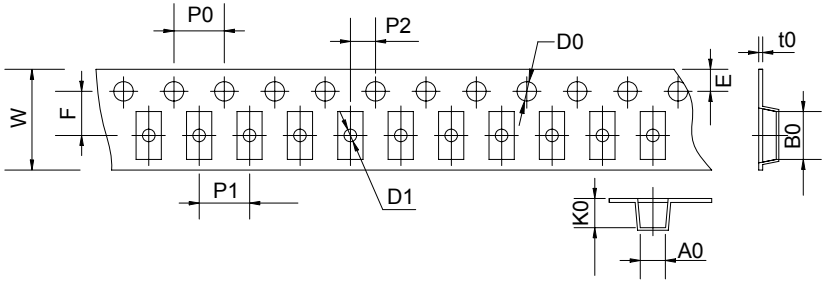
Items	Test conditions / Methods	Standard
Cold Resistance	Measurement after -40°C/1000 HRS & normal temperature/2 HRS.	Features are conformed to rated spec.
Heat Resistance	Measurement after 125°C/1000 HRS & normal temperature/2 HRS.	
Humidity Resistance	Measurement after humidity 90~95°C(45°C) /1000 HRS & normal temperature/2 HRS.	
Temperature Cycle	10 times repetition of cycle -40°C/30min → normal, temp/2 min → 125°C/30min, measurement after normal temp/2 HRS.	
Solder Ability	Apply flux and immerse in molten solder 230±5°C for 3sec up to the point of 1.5mm from body. Check for solder adhesion.	Lead wire is evenly covered by solder.
Solder Heat	Measurement after lead wire is dipped up to the point of 1.5mm from body into 260±5°C solder for 10sec.	Conformed to rated spec.

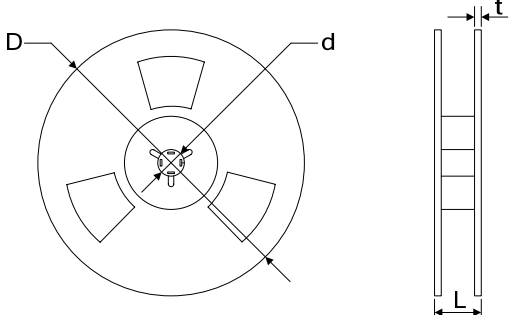
Recommended Soldering Conditions



Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat	
-Temperature Min (TS min)	150°C
-Temperature Max (TS max)	200°C
-Time (min to max) (ts)	60-180 seconds
TS max to TL	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (TL)	217°C
-Time (tL)	60-150 seconds
Peak Temperature (TP)	260°C
Time within 5°C of actual Peak Temperature (tp)	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	±0.20
	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
	D	170.00	±1.00
	d	13.00	±0.50
	L	12.00	±0.50
	t	1.20	±0.20
Quantity: 2500pcs			

Reel	Items	Dimension (mm)	Tolerance
	D	170.00	±1.00
	d	13.00	±0.50
	L	12.00	±0.50
	t	1.20	±0.20
	Quantity: 2500pcs		