Gas Discharge Tube (GDT) Data Sheet

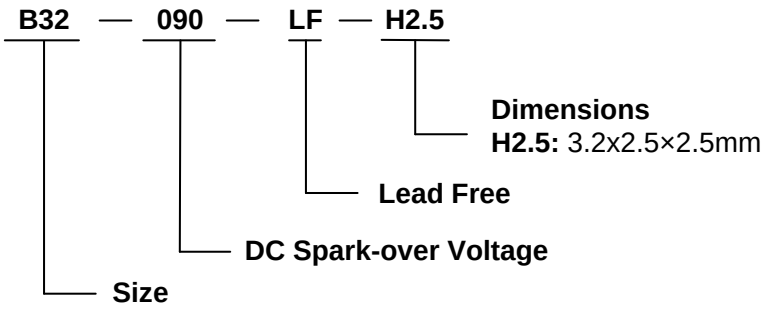
Features

- High insulation resistance
- Low capacitance (≤0.5pF)
- 1KA 8/20μs maximum surge current capacity in accordance with IEC61000-4-5
- 6KV 10/700μs maximum surge rating in accordance with ITU-TK.21
- Surface mounted gas arrester
- Micro-Gap Design
- Size 3225(1210)
- Storage and operating temperature: -40℃ ~ +85℃
- Meets MSL level 1, per J-STD-020
- Safety certification: E244458

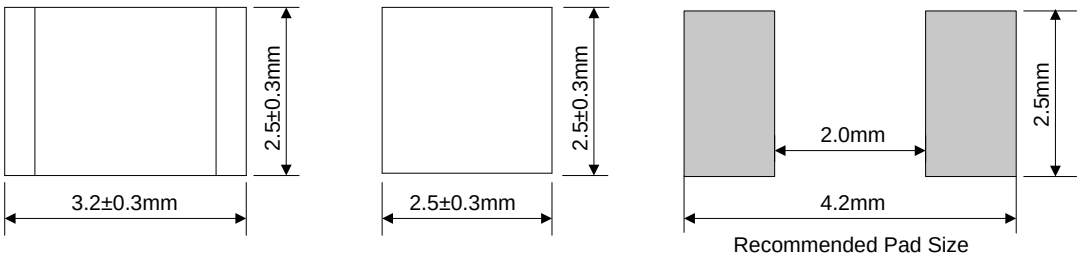
Applications

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

Part Number Code



Dimensions



Electrical Characteristics

Part Number	Type ①	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current	Impulse Withstanding Voltage Capacity	Minimum Insulation Resistance		Maximum Capacitance	Device Marking Code
		100V/s	1000V/μs	8/20μs 10times	10/700μs 10times	Test Voltage	(GΩ)	(1MHz)	
		(V)	(V)	(KA)	(KV)	DC(V)		(pF)	
B32-090-LF	H2.5	63~117	700	1.0	6.0	50	1.0	0.5	None
B32-150-LF	H2.5	105~195	750	1.0	6.0	100	1.0	0.5	None
B32-200-LF	H2.5	160~240	800	1.0	6.0	100	1.0	0.5	None
B32-300-LF	H2.5	240~360	850	1.0	6.0	100	1.0	0.5	None
B32-400-LF	H2.5	360~580	950	1.0	6.0	100	1.0	0.5	None

Notes：① Specific code by request.

Electrical Ratings

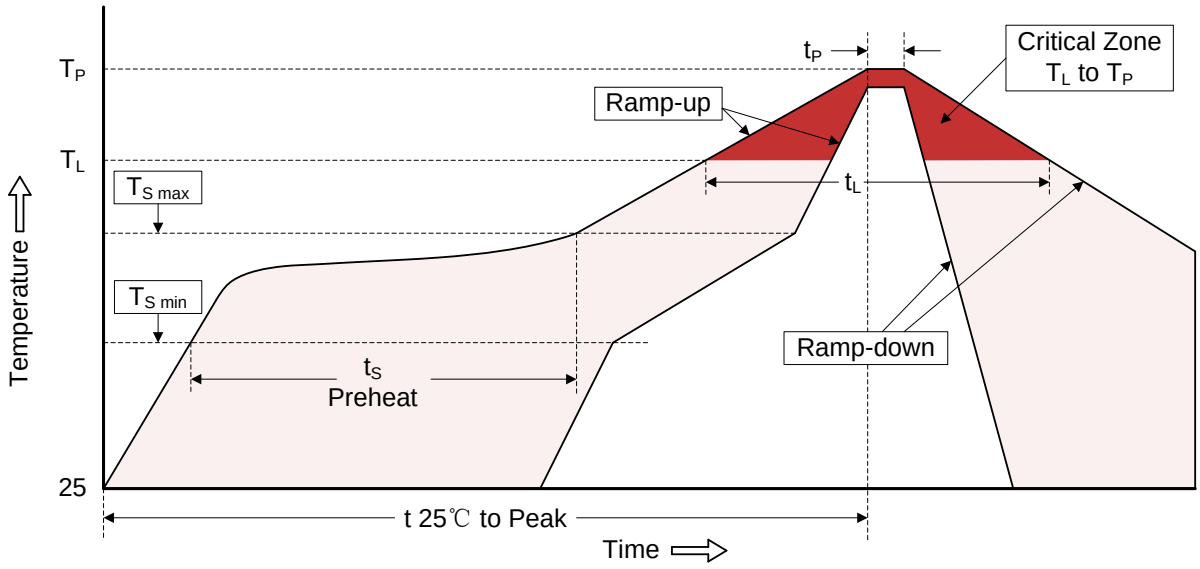
Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp dv/dt=100V/s.	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp dv/dt=1000V/μs.	
Insulation Resistance	The resistance 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 8/20μs 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 10/700μs 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℃/1000 HRS & normal temperature/2 HRS.	Features are conformed to rated spec.
Heat Resistance	Measurement after 125℃/1000 HRS & normal temperature/2 HRS.	
Humidity Resistance	Measurement after humidity 90~95℃(45℃) /1000 HRS & normal temperature/2 HRS.	
Temperature Cycle	10 times repetition of cycle -40℃/30min →normal, temp/2 min →125℃/30min, measurement after normal temp/2 HRS.	
Solder Ability	Check for solder adhesion after 260±5℃ for 3sec , The body immersion depth 1.5mm in molten solder	Evenly covered by solder.
Solder Heat	Measurement after 260±5℃ solder for 10sec, The body immersion depth 1.5mm in molten solder	Conformed to rated spec.

Recommended Soldering Conditions

Reflow Soldering

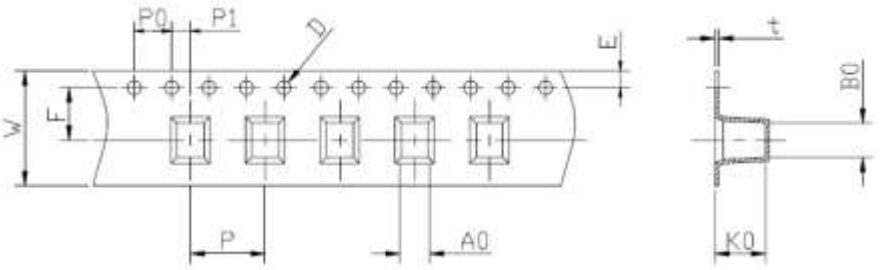


Recommended Conditions

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

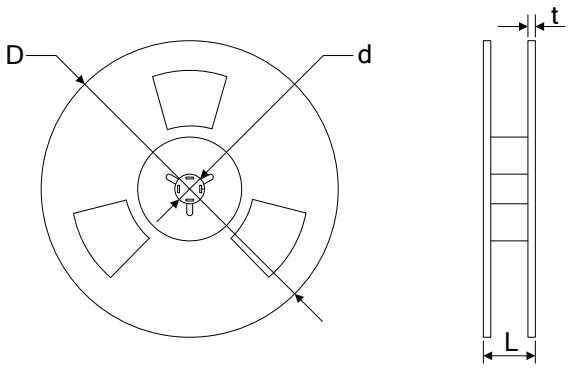
Packaging

Tape



Items	Dimension (mm)	
	Spec.	Tolerance
W	12.00	±0.20
A0	2.90	±0.10
B0	3.60	±0.10
K0	2.90	±0.10
E	1.75	±0.10
F	5.50	±0.10
D	1.55	±0.10
P	8.00	±0.10
P0	4.00	±0.10
P1	2.00	±0.10
t	0.40	±0.10

Reel



D	300.00	±1.00
d	13.00	±0.50
L	16.00	±0.50
t	2.00	±0.20

Quantity: 2500pcs