

## Gas Discharge Tube (GDT) Datasheet

### ● Features

- Excellent response to fast rising transients
- Stable breakdown voltage
- Low capacitance and Insertion Loss
- High insulation resistance
- Dimensions 3.2\*1.6\*1.6 mm
- Storage and operating temperature: -40°C ~ +85°C
- Reliable to Protect Electrostatic Surge
- High Current Handling Capability @8/20μs;

DC Spark-over Voltage  
90V to 500V

### ● Applications

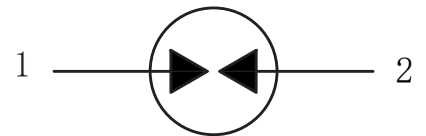
- Test equipment
- AC Power
- Power supplies
- Telephone Interface, Line cards
- General Telecommunications equipment

### ● Part Number Code

3 2 1 6 - 1 5 0

DC Spark-over Voltage

Dimensions

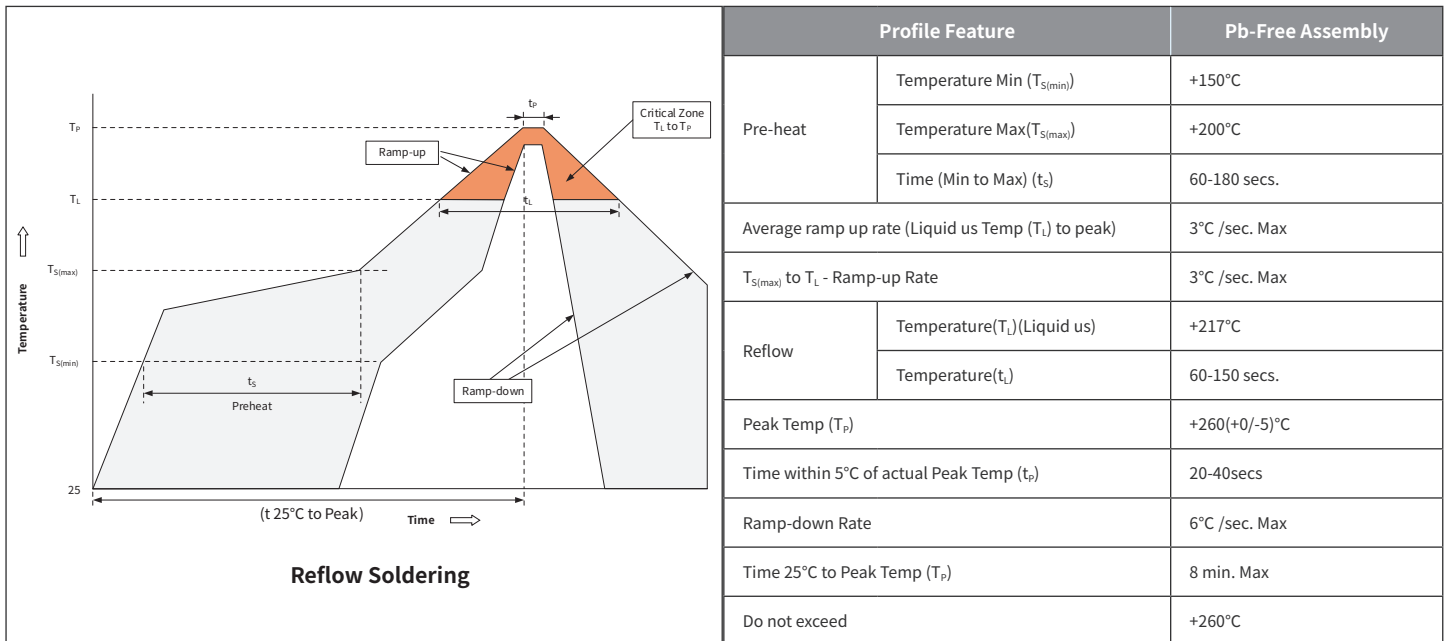


## ● Electrical Characteristics (Ta=25°C Unless otherwise specified)

Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current@8/20μs	Impulse Waveform @10/700μs	Minimum Insulation Resistance		Maximum Capacitance
	100V/S	1000V/μs	±5times	±5times	Test Voltage	GΩ	1MHz
	(V)	(V)	(KA)	(KV)	DC(V)		(pF)
3216-090	90V±30%	900	0.5	4	50	1	0.5
3216-150	150V±30%	900	0.5	4	100	1	0.5
3216-200	200V±20%	900	0.5	4	100	1	0.5
3216-230	230V±20%	950	0.5	4	100	1	0.5
3216-300	300V±20%	1100	0.5	4	100	1	0.5
3216-350	350V±20%	1200	0.5	4	100	1	0.5
3216-400	400V±20%	1200	0.5	4	100	1	0.5
3216-450	450V±20%	1400	0.5	4	100	1	0.5
3216-500	500V±20%	1400	0.5	4	100	1	0.5

Note: 3216 Series without Marking.

## ● Recommended Soldering Conditions



## ● 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 $dv/dt=1000V/\mu s$ .	
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 time.	
	<p>The graph shows the impulse discharge current waveform. The y-axis is labeled 'CURRENT (%)' with values 0, 10, 50, 90, and 100. The x-axis is labeled 'Time' with markers for 8<math>\mu s</math> and 20<math>\mu s</math>. The curve starts at 0, rises to a peak labeled 'Crest value' at 100% at 8<math>\mu s</math>, and then decays. A horizontal dashed line at 50% current intersects the decay curve, and a vertical dashed line drops from that point to the x-axis, defining a 20<math>\mu s</math> interval. The total time from the start to the end of this 20<math>\mu s</math> interval is labeled 'Impulse Width'.</p>	
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. for 10 times with interval time 3 min.	
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	

## ● Physical Dimensions & Recommended Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.3	1.9	0.051	0.075
B	1.3	1.9	0.051	0.075
C	2.9	3.5	0.114	0.138
D	0.2	0.4	0.008	0.016
X	1.2	1.4	0.047	0.055
X1	3.2	3.4	0.126	0.134
Y	1.7	1.9	0.067	0.075

# 3216 SERIES

Surface Mount Gas Discharge Tube

## ● Ordering Information

SERIES	SIZE(mm)	DELIVERY MODE	MPQ(pcs)	BOX (pcs)	CARTON(pcs)
3216 Series	3.2×1.6×1.6	7" REEL	2,000	4,000	48,000

## ● Packaging Information

Symbol	Dimensions(mm)	
	Millimeters	Inches
W	12±0.3	0.472±0.012
A0	2.05±0.1	0.081±0.004
B0	3.7±0.1	0.146±0.004
K0	1.8±0.1	0.071±0.004
P	8.0±0.1	0.315±0.004
F	5.5±0.1	0.217±0.004
E	1.75±0.1	0.069±0.004
D	1.5±0.1	0.059±0.004
P0	4.0±0.1	0.157±0.004
P2	2.0±0.1	0.079±0.004
T	0.3±0.05	0.012±0.002

## ● Important Notice

1. This series is designed, manufactured, and sold exclusively for the domestic market (China).
2. This series is NOT UL Certified, and our company does not market or sell this product for use overseas.
3. If the customer exports this series to overseas markets (including but not limited to North America) without our prior written consent, the customer shall assume all risks and liabilities arising from the product's lack of UL certification.
4. By purchasing, using, or handling this product, the customer is deemed to have fully acknowledged and agreed to all terms stated in this notice.