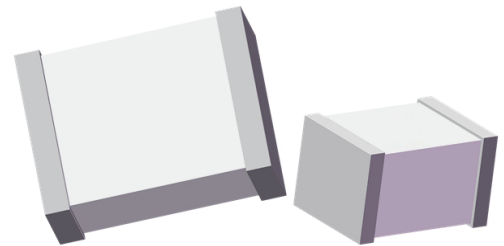


# WHGDxxxVxPxB

## Product Datasheet

### Chip Series

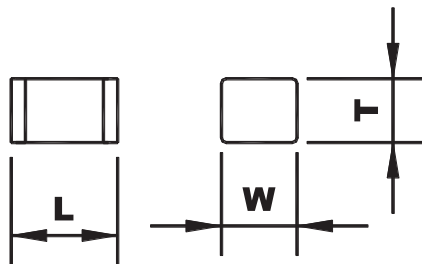
1. High insulation resistance
2. Low capacitance ( $\leq 1.0\text{pF}$ )
3. 3000A 8/20 $\mu\text{s}$  maximum surge current capacity in accordance with IEC61000-4-5
4. 6KV 10/700 $\mu\text{s}$  maximum surge rating in accordance with ITU-TK.21
5. Surface mounted gas arrester
6. Micro-Gap Design
7. Size 4532(1812)
8. Storage and operating temperature:  $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
9. Meets MSL level 1, per J-STD-020
10. Safety certification: E221527



### Applications

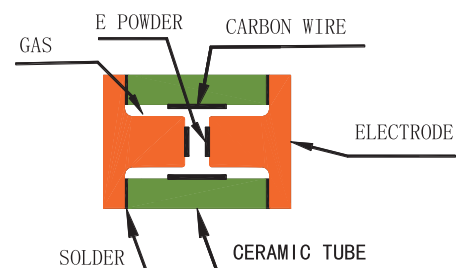
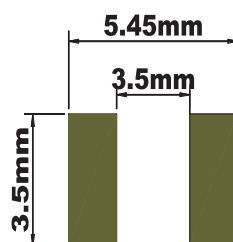
1. Repeaters, Modems
2. Telephone Interface, Line cards
3. Data communication equipment
4. Line test equipment

### Drawing



W	3.2 $\pm$ 0.3mm
T	2.7 $\pm$ 0.3mm
L	4.5 $\pm$ 1.0mm

### Structure



# WHGDxxxVxPxB

## Product Datasheet

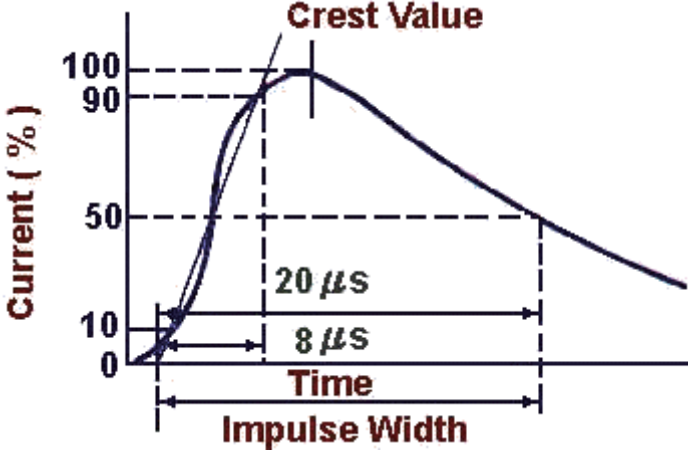
### Electrical Specification

Model	DC Breakdown Voltage 100v/s	Impulse Discharge Current	Impulse Withstanding Voltage Capacity	Impulse Spark-over Voltage 1kv/μs	Insulation Resistance	Capacitance (1MHz 1V)
WHGD75V1P0B	75V (55~95)	8/20 μs 2000A 10Times	10/700 μs 6kV Positive/Negative 5 Times  8/20 μs 1000A 10Times  10/1000 μs 8/20 μs 100A 100Times	≤ 600v	1GΩ Min (DC 100V)	1 pF Max.
WHGD90V1P0B	90V (63~117)			≤ 600v		
WHGD120V1P0B	120V (84~156)			≤ 600v		
WHGD150V1P0B	150V (120~180)			≤ 600v		
WHGD200V1P0B	200V (160~240)			≤ 650v		
WHGD230V1P0B	230V (184~276)			≤ 650v		
WHGD300V1P0B	300V (210~390)			≤ 650v		
WHGD350V1P0B	350V (280~420)			≤ 850v		
WHGD400V1P0B	400V (320~480)			≤ 900v	1GΩ Min (DC 250V)	
WHGD420V1P0B	420V (336~504)			≤ 900v		
WHGD470V1P0B	470V (376~564)			≤ 950v		
WHGD500V1P0B	500V (400~600)			≤ 1000v		
WHGD600V1P0B	600V (480~720)			≤ 1050v		
WHGD1000V1P0B	1000V (800~1200)			≤ 1600v	1GΩ Min (DC 500V)	

# WHGDxxxVxPx B

## Product Datasheet

### Electrical Rating

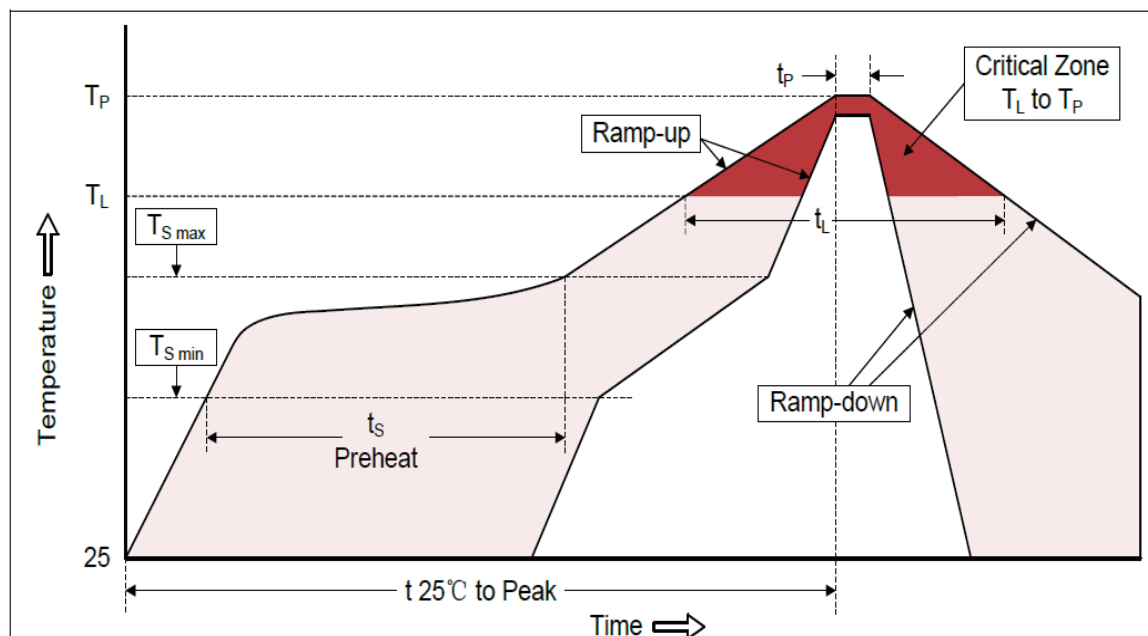
Item	Test Condition / Description	Requirement
DC Breakdown Voltage	The voltage is measured with a low rate of rise $dv/dt \approx 100 \text{ v/s}$	To meet the specified value
Maximum Impulse Breakdown Voltage	The maximum impulse breakdown voltage is measured with a rise time of $dv/dt \approx 1000 \text{ v/}\mu\text{s}$	
Maximum Impulse Discharge Current	<p>The maximum current within gas tube voltage change of <math>\pm 20\%</math> when one impulse is applied.            Applied waveform : 8/20 <math>\mu\text{s}</math></p> 	
DC Holdover Voltage	The maximum DC voltage across the two terminals of gas tube under which it may be expected to return to the high impedance state after the gas tube breakdown.	
Insulation Resistance	<p>The resistance of gas tube shall be measured each terminal to each other terminal.</p> <p>Applied voltage: gas tube dc breakdown voltage under 150V, the test voltage is 50V dc; with all other types at 100V dc.</p>	
Capacitance	<p>The capacitance of gas tube shall be measured each terminal to each other terminal. Test frequency : 1 KHZ</p> <p>In measurements involving 3-electrode gas tubes ,the terminal not being tested shall be connected to a ground plane.</p>	

# WHGDxxxVxPxB

## Product Datasheet

### Recommended Solder Conditions

#### Reflow Soldering



Profile Feature	Pb-Free Assembly
Average ramp-up rate ( $T_L$ to $T_P$ )	3°C/second max.
Preheat <ul style="list-style-type: none"> <li>-Temperature Min (<math>T_{S\ min}</math>)</li> <li>-Temperature Max (<math>T_{S\ max}</math>)</li> <li>-Time (min to max) (<math>t_s</math>)</li> </ul>	150°C 200°C 60-180 seconds
$T_{S\ max}$ to $T_L$ <ul style="list-style-type: none"> <li>-Ramp-up Rate</li> </ul>	3°C/second max.
Time maintained above: <ul style="list-style-type: none"> <li>-Temperature (<math>T_L</math>)</li> <li>-Time (<math>t_L</math>)</li> </ul>	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.

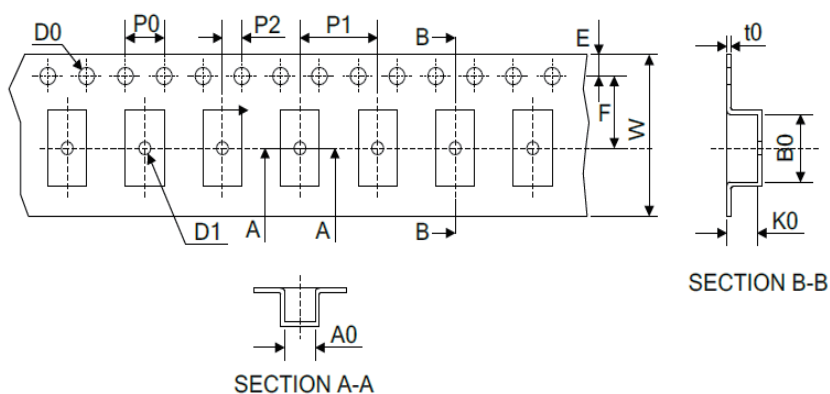
# WHGDxxxVxPxB

## Product Datasheet

### Chip GDT Taping

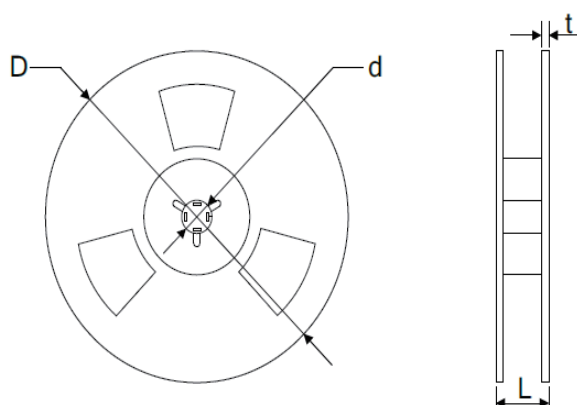
#### Packaging

##### Tape



Items	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	1.55	±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

##### Reel



D	330.00	±2.00
d	13.00	±0.50
L	16.00	±2.00
t	2.00	±0.20
Quantity: 2500pcs		