

Chip Series

1. High insulation resistance
2. Low capacitance ($\leq 1.0\text{pF}$)
3. 3000A 8/20 μs maximum surge current capacity in accordance with IEC61000-4-5
4. 6KV 10/700 μs maximum surge rating in accordance with ITU-TK.21
5. Surface mounted gas arrester
6. Micro-Gap Design
7. Size 4.5x3.2x2.7 mm
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



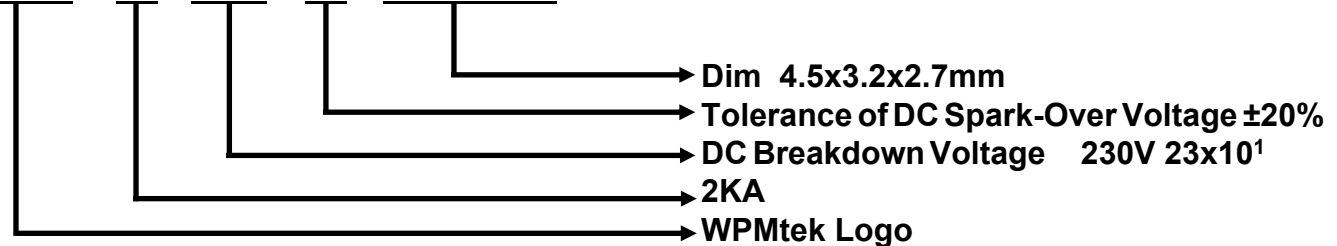
Applications

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

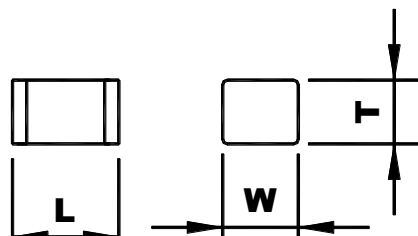


How to Order

WTG B 231 N - 453227

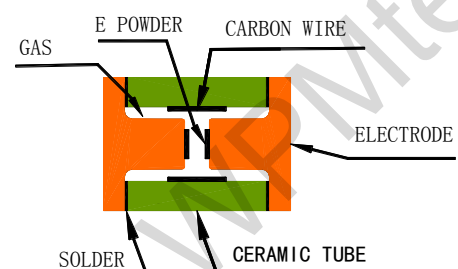
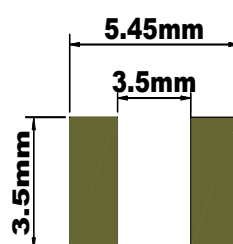


Drawing



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

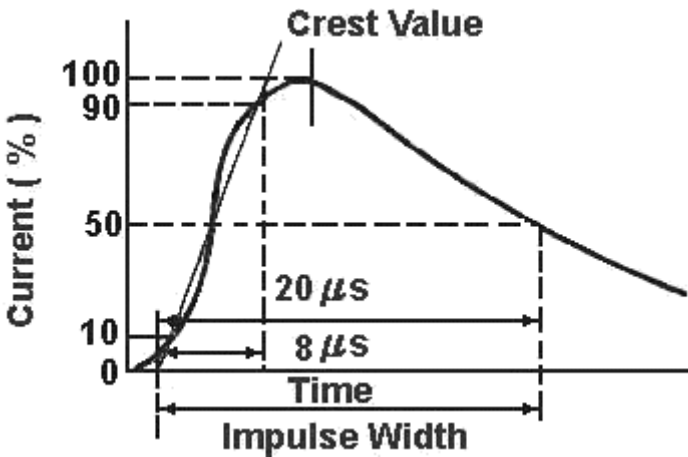
Structure



Electrical Specification

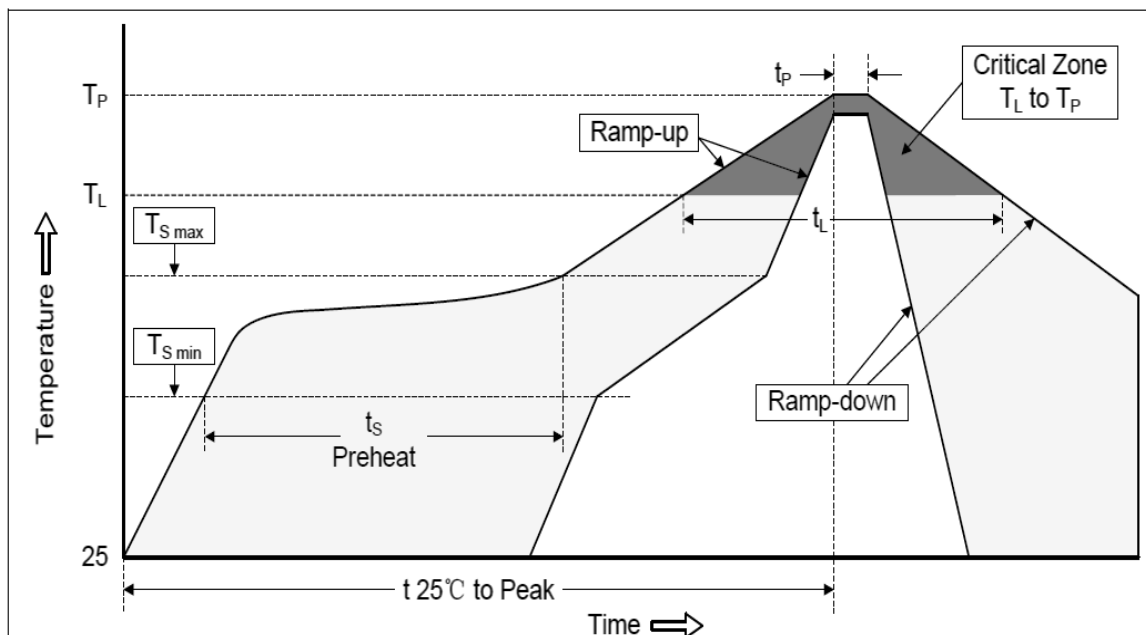
Model	DC Breakdown Voltage 100v/s	Impulse Discharge Current	Impulse Withstanding Voltage Capacity	Impulse Spark-over Voltage 1kv/μs	Insulation Resistance	Capacitance (1MHz 1V)
WTGB075N-453227	75V (55~95)	8/20μs 2000A 1Times	10/700μs6kV Positive/Negative 5 Times 8/20μs 1000A 10Times 10/1000μs 8/20 μs 100A 100Times	≤ 650v	1G Ω Min (DC 100V)	1 pF Max.
WTGB091N-453227	90V (63~117)			≤ 650v		
WTGB121N-453227	120V (84~156)			≤ 650v		
WTGB151N-453227	150V (120~180)			≤ 650v		
WTGB201N-453227	200V (160~240)			≤ 650v		
WTGB231N-453227	230V (184~276)			≤ 650v		
WTGB301M-453227	300V (210~390)			≤ 850v		
WTGB351M-453227	350V (280~420)			≤ 850v	1GΩ Min (DC 250V)	
WTGB401M-453227	400V (320~480)			≤ 900v		
WTGB401M-453227	420V (336~504)			≤ 900v		
WTGB401M-453227	470V (376~564)			≤ 950v		
WTGB501M-453227	500V (400~600)			≤ 1000v		
WTGB601M-453227	600V (480~720)			≤ 1050v		
WTGB102M-453227	1000V (800~1200)			≤ 1600v		

Electrical Rating

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

Recommended Solder Conditions

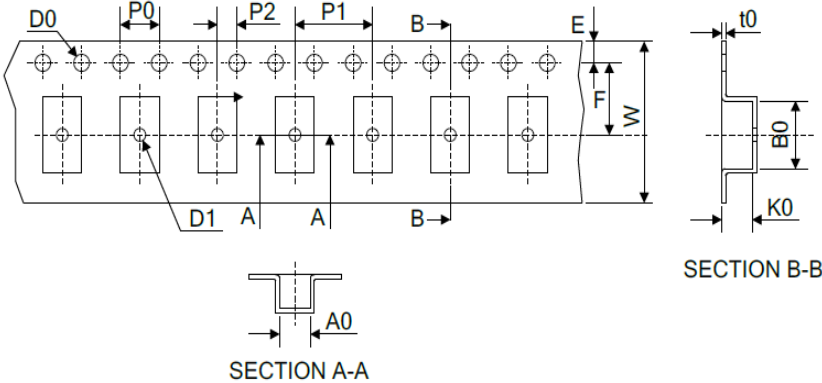
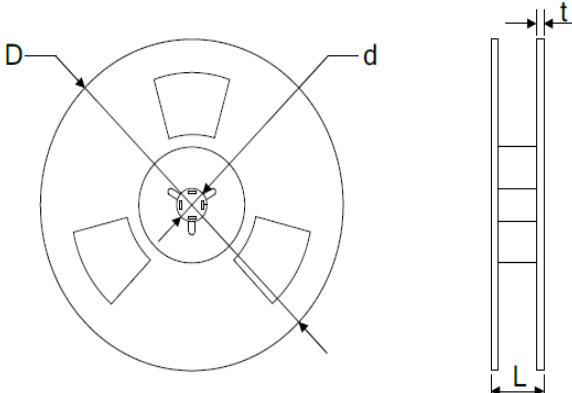
Reflow Soldering



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"> -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s) 	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L <ul style="list-style-type: none"> -Ramp-up Rate 	3°C/second max.
Time maintained above: <ul style="list-style-type: none"> -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.

Chip GDT Taping

Packaging

Tape	Items	Dimension (mm)	
		Spec.	Tolerance
 <p>Diagram illustrating the dimensions of the carrier tape. The top view shows dimensions D0, P0, P2, P1, B, E, F, W, D1, A, and B. Cross-section A-A shows dimension A0. Cross-section B-B shows dimensions t0, B0, and K0.</p>	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
 <p>Diagram illustrating the dimensions of the reel. The top view shows dimensions D, d, and L. The side view shows dimension t.</p>	D	330.00	±2.00
	d	13.00	±0.50
	L	16.00	±2.00
	t	2.00	±0.20
	Quantity: 2500pcs		

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