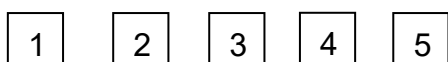


Scope: This specification covers the series products of the tube type of Surge Absorber.

Part Number System :

WSG----2L----201----M----2667



1. WPMtek Series Name.

2. Straight in 2 pins

3. DC Spark-Over Voltage The first two digits are a multiplicand.

The third number is 10¹.example : 201 means 20 X 10¹=200. (DC Spark-Over Voltage).

4. Tolerance of DC Spark-Over Voltage

L	M	N
±15%	±20%	±30%

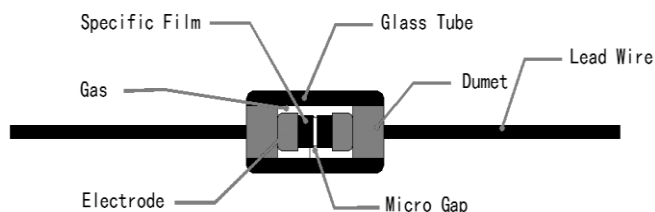
5. Glass Tube Dimension Ø2.0*4.0MM

Temperature range

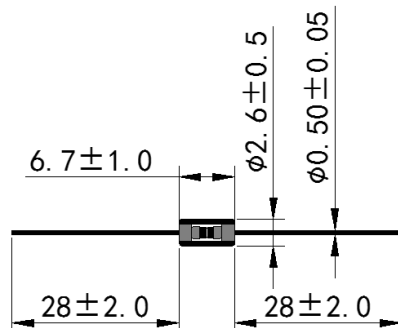
(1) Working temperature range: -45°C-----+125°C.

(2) Storing temperature range: -45°C-----+125°C.

Structure



Dimension



Specification

Part Number	DC Spark-Over Voltage Vs(V)	Insulation Resistance IR(OHM)/DCV	Electrostatic Capacitance 1KHz-6Vmax C(pF)	Surge current capacity 8/20us	Surge Life Test
WSG2L141N-2667	140(98~182)	>100M/50V	<1.0	1000A	1kHz-10KV ±100times 8/20μs 100A ±100times
WSG2L201M-2667	200(160-240)	>100M/100V			
WSG2L251M-2667	250(200-300)				
WSG2L301M-2667	300(240-360)				
WSG2L401M-2667	400(320-480)	>100M/250V			
WSG2L501M-2667	500(400~600)				
WSG2L601M-2667	600(480-720)				
WSG2L102M-2667	1000(800-1200)	>100M/500V			
WSG2L122M-2667	1200(960-1440)				
WSG2L152M-2667	1500(1200-1800)				

Color code		1st Band	2nd Band	3rd Band
Black	0	Part No	Manufacture Lot No.1	Manufacture Lot No.2
Brown	1			
Red	2			
Orange	3			
Yellow	4			
Green	5	Red	Orange	Blue
Blue	6			
Purple	7			
Gray	8			
White	9			

Initial Characteristics.

Test Item	Test Method	Specification
DC Spark-Over Voltage V_s (V)	Add and measure the DC Voltage gradually Max to get the discharge threshold voltage. The measuring current is 1mA/1 second max.	It depends on each spec.
Insulation Resistance	Measure the insulation resistance of two end of lead wire under the specified DC voltage.	100M Ω min.
Capacitance C(pF)	Measure the Electrostatic Capacitance under the test condition of 1KHz, DC 6V(max)	1pF max.)

Environmental Characteristics.

Test Item	Test Method	Characteristics
Cold Resistance JIS C0020	After $-40\pm 3^{\circ}\text{C}$ (1000hrs) / room temp., normal humidity(4 hrs) cycle, measure the properties.	Within standard mentioned in Initial Characteristics.
Heat Resistance JIS C0021	After $125\pm 2^{\circ}\text{C}$ (1000hrs) / room temp., normal humidity(4 hrs) cycle, measure the properties.	Within standard mentioned in Initial Characteristics.
Humidity Resistance JIS C0020	After $85\pm 2^{\circ}\text{C}$, 85% RH (1000hrs)/room temp., normal humidity(4hrs) cycle, measure the properties.	Within standard mentioned in Initial Characteristics.
Temperature Cycle Test (JIS C0025)	25 times repetition of cycle $-40\pm 3^{\circ}\text{C}$ (30 Min.), room temp., (4 Min.), $125\pm 2^{\circ}\text{C}$ (30 Min.), room temp., normal humidity(4hrs) .	Within standard mentioned in Initial Characteristics.

Mechanical Characteristics.

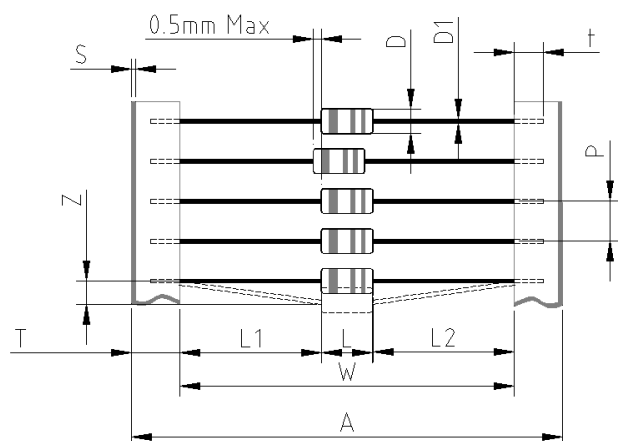
Test Item	Test Method	Characteristics
Pull Strength (JIS C0051)	Apply 2.5 kg load approximately 30 seconds, then check for pull-out and breaking of the lead wire.	Within standard mentioned in Initial Characteristics.
Flexure Strength (JIS C0051)	Bend the lead wire, with jig which radius is 0.75~0.8mm, at the point of 2mm from the body, under 0.25 kg load applied at the right angle the direction of the aims and get the bent lead wire back to its original poing after the procedure was repeated 2 times.)	Within standard mentioned in Initial Characteristics.

Solder Characteristics.

Test Item	Test Method	Specification
Solder ability (JIS C0050,4.6)	Apply flux and immerse in molten solder, up to the point of 3mm from the body,for 5 sec. (265°C±5°C). Wash the lead wire and check for soldering adhesion.	Lead wire is evenly covered by solder over 90%.
Solder Heat (JIS C0051)	Lead wire is dipped up to the point of 2mm from the body, into 265°C±5°C solder for 10±1 sec. And measure the properties.	Within standard mentioned in Initial Characteristics.

Surge Characteristics

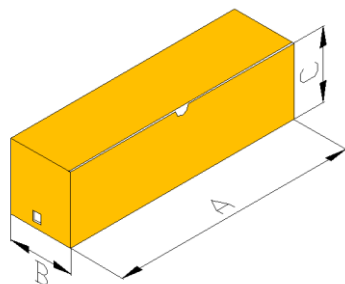
Test Item	Test Method	Specification
Life	Apply a standard impulse voltage 10X700 μ sec of 2KV for 5 times with intervals of 60 sec., and then change the polarity of the surge and apply a impulse again. And similarly, apply a impulse voltage 8 X 20 μ sec) of 100A. Total apply 200times. Then measure DC spark-over voltage, IR & Capacitance.	DC spark-over voltage : $\Delta V_s / V_s \leq 30\%$
Life	Apply 10 KV voltage charged in 1500pF condenser and apply the current to the specimen,200 times at 10 seconds of intervals.	VS: $\Delta V_s / V_s \leq 30\%$ IR: 100M Ω min. C: 1 Pf max



MARK	Dimension
A	65.5 max
W	52+0.5, -0.00
P	5.0 \pm 0.5
T	6.0 \pm 1.0
Z	1.2 max
L1-L2	0.5 max
S	0.8 max
t	5.0 max
L	6.7 \pm 1.0
D1	Φ 0.5 \pm 0.05
D	Φ 2.6 \pm 0.30

PACKAGE

Inner box



MARK	(Dimension)
A (Length)	255mm
B (Width)	75mm
C (Height)	68mm
Q'ty	2000pcs

Carton:



MARK	(Dimension)
A (Length)	390mm
B (Width)	270mm
C (Height)	290mm
Q'ty	40000pcs

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