

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

**Part Number System :**

WSG----2L---201---M---2643

1     2     3     4     5



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  $20 \times 10^1 = 200$ . ( DC Spark-Over Voltage).

4. Tolerance of DC Spark-Over Voltage

L	M	N
±15%	±20%	±30%

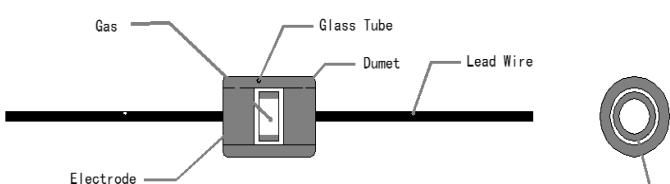
5. Glass Tube Dimension Ø2.6\*4.3MM

**Temperature range**

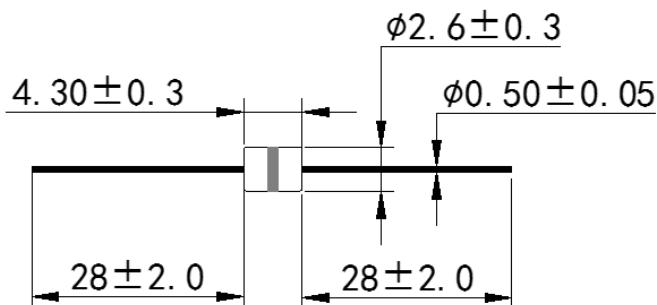
Working temperature range: -45°C ----- +125°C.

Storaging temperature range: -45°C ----- +125°C.

## Structure



## Dimension



## Specification

Part Number	DC Spark-Over Voltage Vs(V)	Maximum Impulse Spark-over Voltage 1000V/1μs (V)	Insulation Resistance IR(OHM)/DCV	Electrostatic Capacitance 1KHz-6Vmax C (pF)	Surge current capacity 8/20us (A)	Surge Life Test
WSG2L141N-2463	141 (98-182)	< 600	>100M /50V	< 0.8	1000A	8x20μs 100A 200time
WSG2L201M-2463	200 (160-240)	< 650	>100M /100V			
WSG2L301M-2463	300 (240-360)	< 800	>100M /250V			
WSG2L401M-2463	400 (320-360)	< 850	>100M /250V			
WSG2L501M-2463	500 (400-600)	< 1050	>100M /250V			

(Color code)	Color code 1
WSG2L141N-2463	Brown
WSG2L201M-2463	Red
WSG2L301M-2463	Orange
WSG2L401M-2463	Yellow
WSG2L501M-2463	Green

{Color order: Black (0), Brown (1), Red (2), Orange (3), Yellow (4), Green (5), Blue (6), Purple (7), Gray (8), White (9)}

**Initial Characteristics.**

Test Item	Test Method	Specification
DC Spark-Over VoltageVs(V)	Add and measure the DC Voltage gradually Maxtor 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 leadwire under the specified DC voltage.	100MΩ 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.

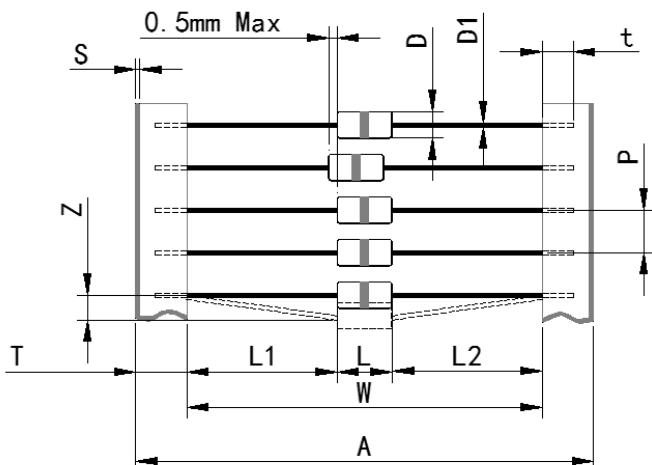
Test Item	Test Method	Characteristics
JIS C0051) Pull Strength (JIS C0051)	Apply 2.5 kg load approximately 30 seconds, then check for pull-out and breaking of the lead wire.	Within standard mentioned in Initial Characteristics.
Flexure Strength (JIS C0051)	Bend the lead wire, with jig which radius is 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. ( $265^{\circ}\text{C}\pm5^{\circ}\text{C}$ ). 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 $265^{\circ}\text{C}\pm5^{\circ}\text{C}$ solder for $10\pm1$ sec. And measure the properties.	Within standard mentioned in Initial Characteristics.

Surge Characteristics

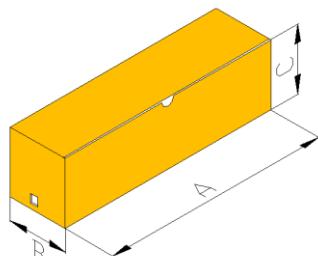
Test Item	Test Method	Specification
Life	Apply a standard impulse voltage ((10X700)μsec) of 2KV for 5 times with intervals of 60 sec., and then change the polarity of the surge and apply a impulse again. And similarly, apply a impulse voltage 8X20 μsec) of 100A . Total apply 100 times. Then measure DC spark-over voltage, IR & Capacitance.	DC spark-over voltage : $\Delta V_s$ / $V_s \leq 30\%$
Life	Apply impulse current of 1500A 8X20 μsec waveform, 3 times at an interval of 3 minutes (in accordance with ITU-TK-12)	No break or damage



MARK	Dimension
A	65.5 max
W	52+0.5,-0.00
P	5.0 ± 0.5
T	6.0 ± 1.0
Z	1.2 max
L1-L2	0.5 max
S	0.8 max
t	5.0 max
L	4.3±1.0
D1	Φ 0.5±0.05
D	Φ 3.1±0.50

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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