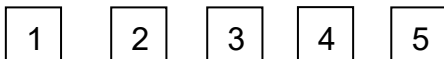


Scope: This specification covers the series products of the tube type of Surge Absorber.

Part Number System :

WSG----2M----201----M----3160



1. WPMtek Series Name.

2. SMD packaging 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%

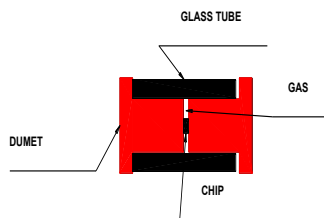
5. Glass Tube Dimension Ø3.1*6.0MM

Temperature range

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

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

Structure



Dimension

Symbol	Dimension (mm)
L	6.0±0.5
D	Φ3.3±0.5
d	Φ3.1±0.5
t	0.4±0.1

Specification

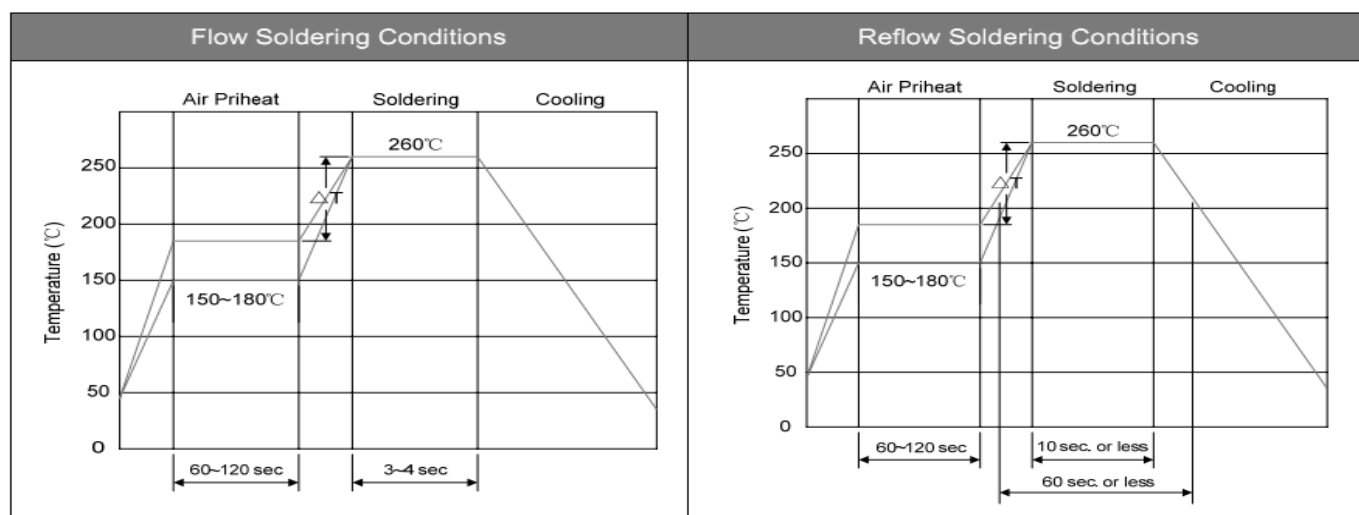
Part Number	DC Spark-Over Voltage Vs(V)	Insulation Resistance IR(OHM)/DCV	Electrostatic Capacitance 1KHz-6Vmax C(pF)	Surge current capacity 8/20us	Surge Life Test
WSG2M141N-3160	140 (98~210)	> 100M/50V	<1.0	3000A	1kHz-10KV Max (8X200μs 100A 200 time)
WSG2M181N-3160	180(126-234)	> 100M/50V > 100M/100V			
WSG2M201M-3160	200(160-240)				
WSG2M301M-3160	300(240-360)				
WSG2M401M-3160	400(320-480)	>100M/250V			
WSG2M501M-3160	500(400-600)				

Taping:

Symbol	Dimension (mm)
W	16.00±0.20
P0	4.00±0.10
P1	8.00±0.10
P2	2.00±0.10
D0	Φ1.5±0.10
E	1.75±0.10
F	7.50±0.05
A0	3.50±0.10
B0	6.50±0.10
K0	3.50±0.10
T	0.50Max.

Reel	D	178.0
	d	13.0
	L	20.0
	Quantity: 500PCS	

Recommended Soldering Conditions).Solder Characteristics.



Initial Characteristics .

Test Item	Test Method	Specification
DC Spark-Over VoltageVs(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 leadwire under the specified DC voltage.	100MΩ 100MΩ min.
Capacitance C(pF)	Measure the Electrostatic Capacitance under the test condition of 1KHz,DC 6V(max)	1PF (1pF max.)

Environmental Characteristics.

Test Item	Test Method	Characteristics
Cold Resistance JIS C0020	After $-40\pm3^{\circ}\text{C}$ (1000hrs) / room temp., normal humidity(4 hrs) cycle, measure the properties.	Within standard mentioned in Initial Characteristics.
Heat Resistance JIS C0021	After $125\pm2^{\circ}\text{C}$ (1000hrs) / room temp., normal humidity(4 hrs) cycle, measure the properties.	Within standard mentioned in Initial Characteristics.
Humidity Resistance JIS C0020	After $85\pm2^{\circ}\text{C}$, 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 $-40\pm3^{\circ}\text{C}$ (30 Min.), room temp., (4 Min.), $125\pm2^{\circ}\text{C}$ (30 Min.), room temp., normal humidity(4hrs) .	Within standard mentioned in Initial Characteristics.

Surge Characteristics

Test Item	Test Method	Specification
Life	Apply a standard impulse voltage $10\times 700\ \mu\text{sec}$ of 4KV 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 $8\times 20\ \mu\text{sec}$ of 100A. Total apply 200 times. Then measure DC spark-over volatage, IR & Capacitance.	$\Delta V_s/V_s \leq 30\%$ (DC spark-over voltage $\Delta V_s/V_s \leq 30\%$)
Surge Current Capacity	1.2/50_s & 8/20_s, 3000A, electrically connected with a resistor (4~6 Ω), ± 5 times, each time interval 60 seconds. Thereafter, outer appearance shall be visually examined.	No crack and no failures

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