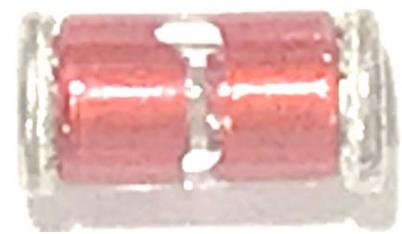


Scope: This specification covers the series products of the tube type of Surge Absorber.



Part Number System :

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

1 2 3 4 5

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%

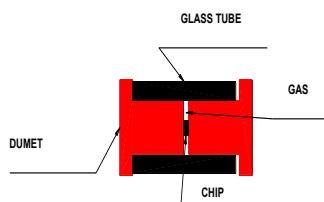
5. Glass Tube Dimension Ø3.1*6.0MM

Temperature range

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

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

Structure



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

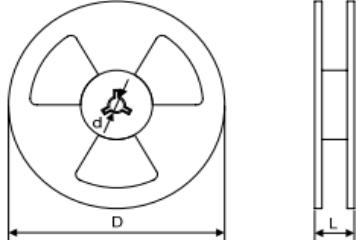
Recommended Pad Size(mm)

Specification

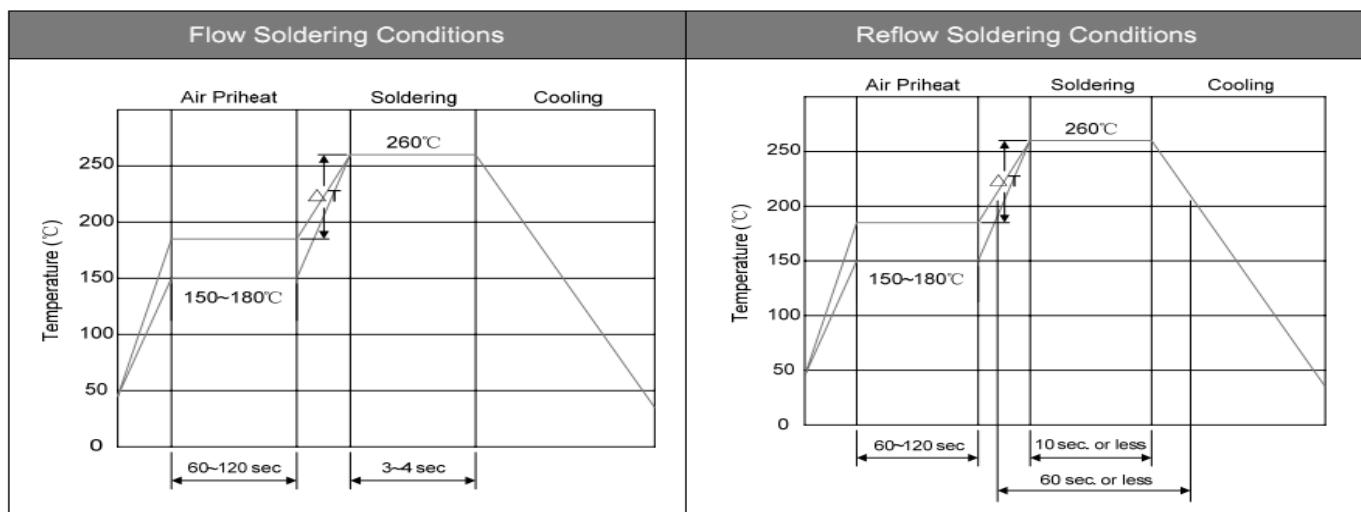
Part Number	DC Spark-Over Voltage Vs(V)	Insulation Resistance IR(OHM)/DCV	Electrostatic Capacitance 1KHz-6Vmax C(pF)	Surge current capacity 8/20us	Surge Life Test
WSG2M141N-3160	140(98~210)	>100M/50V			
WSG2M181N-3160	180(126-234)				
WSG2M201M-3160	200(160-240)	>100M/50V >100M/100V			
WSG2M301M-3160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

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 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 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 $10\times700\text{ }\mu\text{sec}$ 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 $8\times20\mu\text{sec}$ of 100A. Total apply 200 times. Then measure DC spark-over volatage, IR & Capacitance.	$\triangle V_s/V_s \leq 30\%$ (DC spark-over voltage $\triangle V_s/V_s \leq 30\%$)
Surge Current Capacity	1.2/50_s & 8/20_s, 3000A,electrically connected with a resistor ($4\sim6\text{ }\Omega$), ± 5 times, each time interval 60 seconds. Thereafter, outer appearance shall be visually examined.	No crack and no failures

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