



## J5GxxxM2SG Gas Discharge Tube

Rev.1.2

### FEATURE

- ✧ Eliminates small size design EIA 4.2×5.0×5.0mm.
- ✧ Current handling capability 5,000A@8/20μs.
- ✧ Low capacitance and insertion loss.
- ✧ Fast response and long service life.
- ✧ Reliable to protect electrostatic surge.
- ✧ Moisture sensitivity level: Level 1.
- ✧ Storage and operating temperature -40~85℃.



Exterior



Schematic symbol

### APPLICATION INFORMATION

- ✧ Repeaters, modems.
- ✧ Telephone interface, line cards.
- ✧ Data communication equipment.
- ✧ Line test equipment.

### ELECTRICAL CHARACTERISTICS

Part number	DC breakdown voltage 100V/s(V)	Tolerance of V <sub>s</sub>	Impulse spark-over voltage 1KV/μs(V)	Impulse discharge current 8/20μs(A)	Insulation resistance		Co (1MHz)
					GΩ	DC(V)	
J5G091M2SG	90	±20%	≤650	5000	≥1	50	≤1pF
J5G151M2SG	150	±20%	≤680	5000	≥1	50	≤1pF
J5G231M2SG	230	±20%	≤700	5000	≥1	100	≤1pF
J5G351M2SG	350	±20%	≤750	5000	≥1	100	≤1pF
J5G421M2SG	420	±20%	≤850	5000	≥1	100	≤1pF
J5G601M2SG	600	±20%	≤1200	5000	≥1	100	≤1pF

1. The parameters of all tested by ITU-T K12.
2. Total Impulse discharge current 5,000A@8/20μs by IEC 61000-4-5, 10 shots.
3. The capacitance is tested by 1MHz@DC=0.5V.
4. The V-T waveform of DCBV and IPBV mus lie between the shades.

## PART NUMBERING SYSTEM

J5G    421    M    2S    G  
 (1)    (2)    (3)    (4)    (5)

(1) JieJie 5KA gas discharge tube

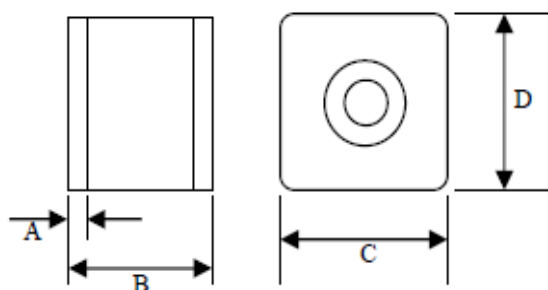
(2) DC breakdown voltage, e.g., 421=42×10<sup>1</sup>=420V

(3) Tolerance is DC breakdown voltage, M=+-20%, N=+-30%

(4) 2-electrod SMD

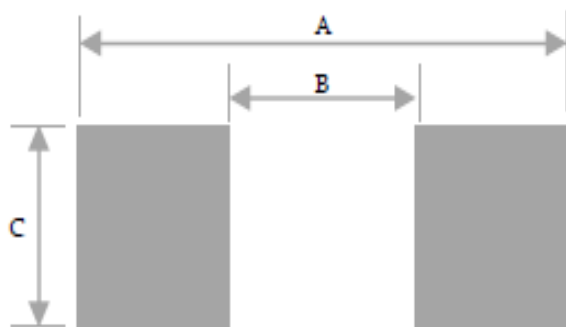
(5) Dimension in 4.2×5.0×5.0 (mm)

## PRODUCT DIMENSIONS (unit: mm)



REF	mm	inch
A	0.5±0.1	0.020±0.004
B	4.2±0.3	0.165±0.012
C	5.0±0.2	0.197±0.008
D	5.0±0.2	0.197±0.008

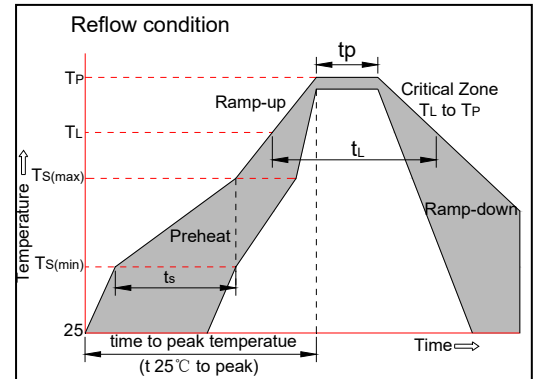
## RECOMMENDED SOLDERING PAD



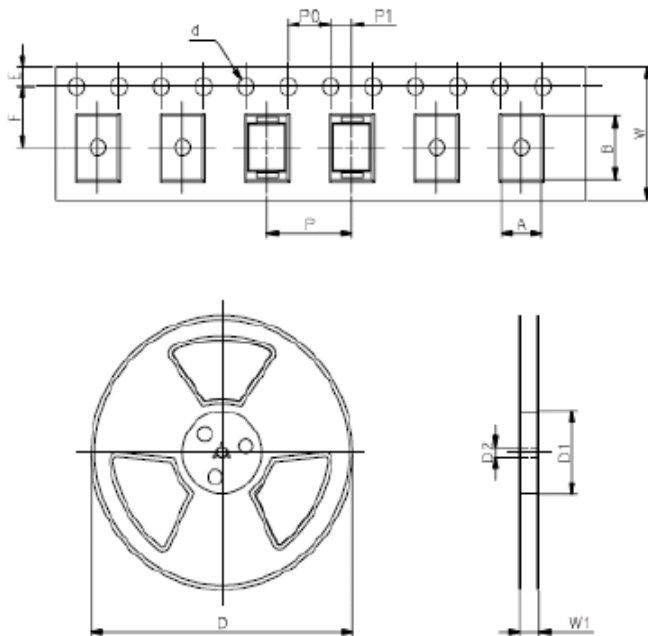
REF	mm	inch
A	4.95	0.195
B	3.0	0.118
C	5.5	0.217

## REFLOW PROFILE

Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquidus)	+217°C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_P$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		~10 secs.
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260°C



## PACKAGE REEL INFORMATION



REF	mm	inch
A	5.3±0.1	0.209±0.004
B	4.5±0.2	0.177±0.008
d	Φ 1.5±0.1	Φ 0.059±0.004
P0	4.0±0.1	0.157±0.004
P1	2.0±0.1	0.079±0.004
P	12.0±0.1	0.472±0.004
E	1.75±0.1	0.069±0.004
F	7.5±0.1	0.295±0.004
W	16.0±0.3	0.630±0.012
D	Φ 330.0	Φ 13.0
D1	Φ 50Min	Φ 1.97Min
D2	Φ 13±0.15	0.512±0.006
W1	16.8±2.0	0.661±0.079

**PACKAGING**

Part No.	Reel Quantity (pcs)	Per Carton (pcs)
J5GxxxM2SG	1,000	10,000

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