



J5GxxxM3SF Gas Discharge Tube

Rev.1.1

FEATURE

- ✧ Eliminates small size design EIA 7.6×5.0×5.0mm.
- ✧ 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.



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_s | Impulse spark-over voltage 1KV/μs(V) | Impulse discharge current 8/20μs(A) | Insulation resistance | | C_o (1MHz) |
|-------------|-----------------------------------|--------------------|---|--|-----------------------|-------|-----------------|
| | | | | | GΩ | DC(V) | |
| J5G091M3SF | 90 | ±20% | ≤700 | 5000 | ≥1 | 50 | ≤1pF |
| J5G151M3SF | 150 | ±20% | ≤750 | 5000 | ≥1 | 50 | ≤1pF |
| J5G231M3SF | 230 | ±20% | ≤850 | 5000 | ≥1 | 100 | ≤1pF |
| J5G421M3SF | 420 | ±20% | ≤1050 | 5000 | ≥1 | 250 | ≤1pF |
| J5G471M3SF | 470 | ±20% | ≤1100 | 5000 | ≥1 | 250 | ≤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 091 M 3S F

(1) (2) (3) (4) (5)

(1) JieJie 5KA gas discharge tube

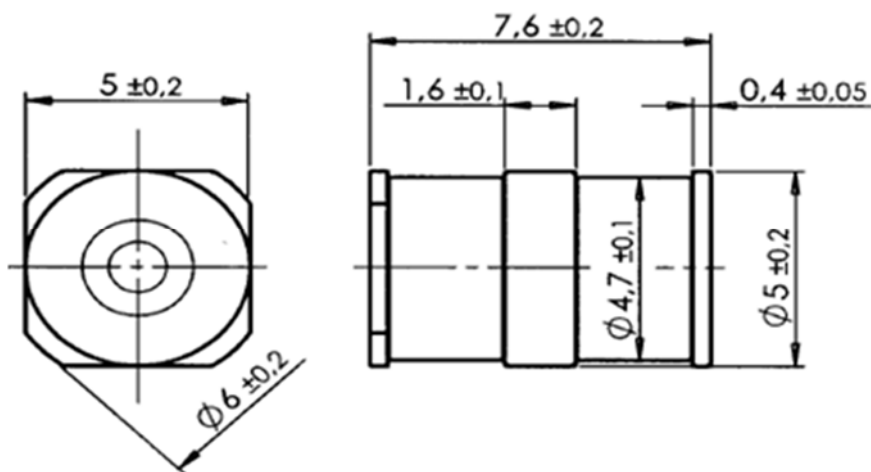
(2) DC breakdown voltage, e.g., 91=9×10¹=90V

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

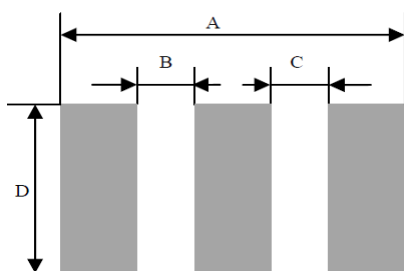
(4) 3-electrod SMD

(5) Dimension in 7.6×5.0×5.0 (mm)

PRODUCT DIMENSIONS (unit: mm)



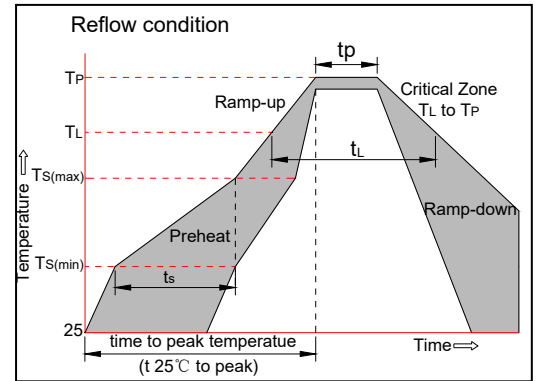
RECOMMENDED SOLDERING PAD



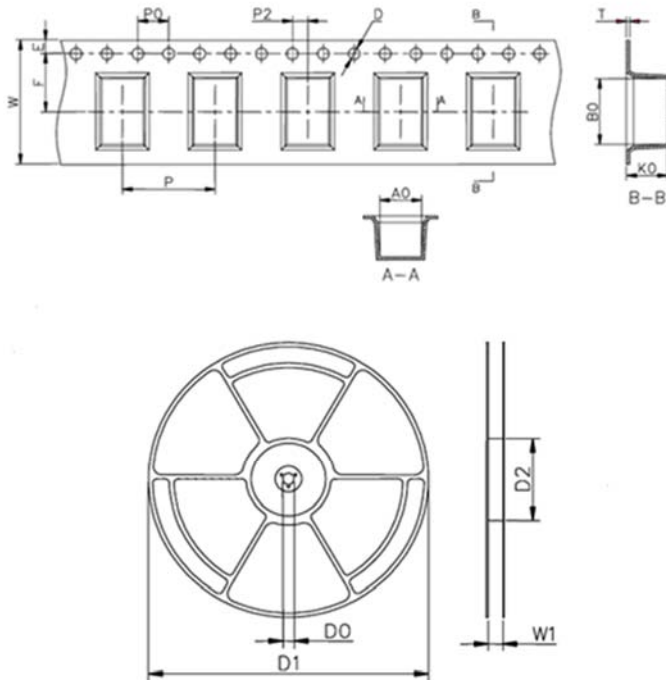
| REF | mm | inch |
|-----|-----|-------|
| A | 9.6 | 0.378 |
| B | 1.5 | 0.059 |
| C | 1.5 | 0.059 |
| D | 5.0 | 0.197 |

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



| Symbol | Millimeters | Inches |
|--------|--------------|--------------------|
| W | 16±0.3 | 0.630±0.012 |
| A0 | 5.4±0.1 | 0.213±0.004 |
| B0 | 8.4±0.1 | 0.331±0.004 |
| K0 | 5.3±0.1 | 0.209±0.004 |
| P | 12±0.1 | 0.472±0.004 |
| F | 7.5±0.1 | 0.295±0.004 |
| E | 1.75±0.1 | 0.069±0.004 |
| D | 1.5+0.1/-0.0 | 0.059+0.004/-0.0 |
| P0 | 4±0.1 | 0.157±0.004 |
| P2 | 2±0.1 | 0.079±0.004 |
| T | 0.4±0.1 | 0.016±0.004 |
| D0 | 13.3±0.15 | 0.524±0.006 |
| D1 | 330±2 | 12.992±0.079 |
| D2 | 100+1/-2 | 3.937+0.039/-0.079 |
| W1 | 16.5±0.4 | 0.65±0.016 |

PACKAGING


| Part No. | Reel Quantity (pcs) | Per Carton (pcs) |
|------------|---------------------|------------------|
| J5GxxxM3SF | 1,000 | 20,000 |

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