

FEATURES

Size Design 3.5*3.5*6.8mm

- High Current Handling Capability 4,000A @ 8/20 μs
- Low Capacitance and Insertion Loss
- Quick Response and Long Service Life
- Moisture sensitivity level:Level 1

APPLICATION INFORMATION

Communication equipment.

- Repeaters, Modems
- Telephone Interface,Line cards.

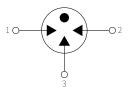
Data communication equipment.

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SG3D03B420

Gas Discharge Tube

3.5*3.5*6.8mm



Schematic Symbol

AGENCY APPROVALS

| lcon | Solderability | |
|------|------------------------------------|--|
| RoHS | Compliance with 2011/65/EU | |
| HF | Compliance with IEC61249-2-21:2003 | |
| Ø | Mean lead free | |

PRODUCT CHARACTERISTICS

| Lead Material | Body Material | Terminal Finish |
|-----------------------|---------------|-----------------------|
| Copper or Fe-Ni alloy | Ceramics | 100% Matte-Tin Plated |



ELECTRICAL PARAMETER

| Parameter | Symbol | Rating | Unit |
|-----------------------------------|-----------------------|-------------------------------------|------|
| DC Blocking Voltage 1) | 100V/s | 336-504 | V |
| Impulse Spark over Voltage | At 1kV/µs | for 99 % of measured values ≤950 | V |
| Impulse Spark-over Voltage | At 1kV/µs | Typical values of distribution ≤850 | V |
| Impulse Discharge Current 2) | 8/20µs | 4 | KA |
| Insulation Resistance | DC=100V | ≥ 1 | GΩ |
| Capacitance at 1MHz | V _{DC} =0.5V | ≤ 1 | pF |
| Operating and Storage Temperature | | -40~90 | °C |

1) In ionized mode

2) Total Currents through center electrode, half value through each Tip electrode

ENVIRONMENTAL RELIABILITY CHARACTERISTICS

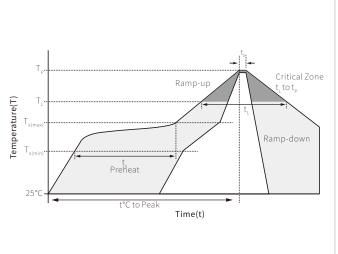
| Testing items | Technical standards | |
|--|---|--|
| High Temperature Storage Test | Temperature: 85°C ; Time:2H | |
| Low Temperature Storage Test | Temperature: -40°C; Time:2H | |
| Vibration | Frequency: 10-500Hz ; Amplitude:0.15mm ; Time:45min | |
| Resistance of soldering heat Temperature: 260°C; Time of dip soldering:10s,1time | | |

NOTE:Up-screen program can be specified by customer's request via contacting Semiware service

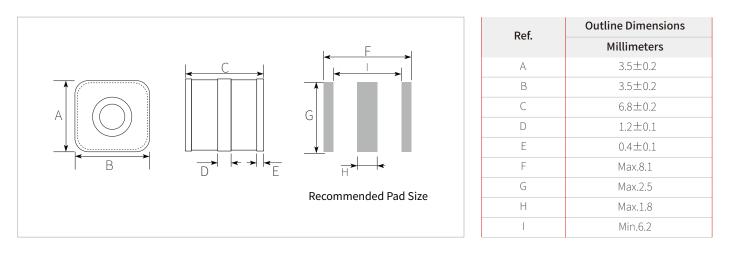


REFLOW PROFILE

| | Reflow Condition | Lead-free assembly |
|---|---|--------------------|
| | Temperature Min | 150°C |
| Pre Heat | Temperature Max | 200°C |
| | Time(min to max) | 60~180 secs |
| Average ra | mp up rate (Liquidus)Temp (T_L) to peak | 3°C/second max |
| | $T_s(max)$ to T_L - Ramp-up Rate | 5 0/30001011187 |
| Defless | Temperature (T _L) (Liquidus) | 217°C |
| Reflow | Time(min to max)(t _s) | 60~150 seconds |
| Peak Tem | perature (T _P) | 260 °C |
| Time with | in 5°C of actual peak Temperature (tp) | 20~40 seconds |
| Ramp-do | wn Rate | 6°C/second max |
| Time 25°C to peak Temperature (T _P) | | 8 minutes max. |
| Do not ex | ceed | 260°C |

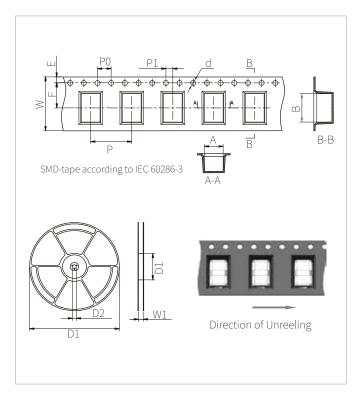


PRODUCT DIMENSIONS





TAPE AND REEL SPECIFICATION



| Ref. | Dimensions | | |
|------|-------------|--------------|--|
| Kel. | Millimeters | Inches | |
| А | 3.9±0.2 | 0.154±0.008 | |
| В | 7.0±0.2 | 0.276±0.008 | |
| d | Φ1.5±0.1 | Ф0.059±0.004 | |
| E | 1.75±0.1 | 0.069±0.004 | |
| F | 7.5±0.1 | 0.295±0.002 | |
| Р | 8.0±0.1 | 0.315±0.004 | |
| P0 | 4.0±0.1 | 0.157±0.004 | |
| P1 | 2.0±0.1 | 0.079±0.004 | |
| W | 16.0±0.3 | 0.63±0.012 | |
| D | Ф330.0 | Ф13.0 | |
| D1 | Ф50Min | Ф1.97Min | |
| D2 | Ф13±0.15 | Ф0.512±0.006 | |
| W1 | 20.8±2.0 | 0.819±0.079 | |

ORDERING INFORMATION

| Part Number | Size | QTY/Reel | Reel Size |
|-------------|---------------|----------|-----------|
| SG3D03B420 | 3.5*3.5*6.8mm | 2500PCS | 13 " |



Headquarters

No.3387 Shendu Road Pujiang I&E Park Minhang Shanghai China 201000

Hotline 400-021-5756

Web Https://www.semiware.com

Sales Center

Tel: 86-21-3463-7458 Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001 Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654 Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172 Ext: 8868 Email: cs03@semiware.com

By QR Code





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SG3D03B420

Gas Discharge Tube