

## **FEATURES**

Surface Mounting Design 4.0\*3.5\*3.5mm

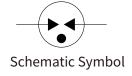
High Current Handling Capability 3000A @ 8/20 μs

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.   |

## **AGENCY APPROVALS**

| Icon       | Solderability                      |  |  |
|------------|------------------------------------|--|--|
| RoHS       | Compliance with 2011/65/EU         |  |  |
| HF         | Compliance with IEC61249-2-21:2003 |  |  |
| Pb         | Mean lead free                     |  |  |
| <b>R</b> . | UL Certificated E505857            |  |  |

## **PRODUCT CHARACTERISTICS**

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



## **ELECTRICAL PARAMETER**

| Parameter                         | Condition                   | Rating                               | Unit |
|-----------------------------------|-----------------------------|--------------------------------------|------|
| DC Blocking Voltage 1)            | 100V/s                      | 100V/s 72-108                        |      |
| Impulse Spark-over Voltage        | At 1kV/μs                   | for 99 % of measured values ≤ 700    | V    |
| impuise Spark-over voltage        | At 1kV/μs                   | Typical values of distribution ≤ 600 | V    |
| Impulse Discharge Current 2)      | 8/20µs                      | 3000                                 | А    |
| Insulation Resistance             | DC=50V                      | ≥1                                   | GΩ   |
| Capacitance at 1MHz               | V <sub>DC</sub> =0.5V ≤ 0.8 |                                      | pF   |
| Operating And Storage Temperature |                             | -40-125                              | °C   |

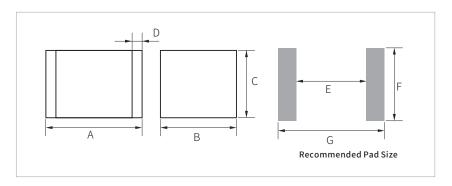
<sup>1)</sup> In ionized mode

# **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±5°C; Time of dip soldering: 10s, 1time |  |

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

## **DIMENSIONS AND RECOMMENDED SOLDERING PAD**



| Ref. | mm        |  |
|------|-----------|--|
| А    | 4.0±0.3mm |  |
| В    | 3.5±0.3mm |  |
| С    | 3.5±0.2mm |  |
| D    | 0.4mm     |  |
| Е    | 3.20mm    |  |
| F    | 3.50mm    |  |
| G    | 5.20mm    |  |

<sup>2)</sup> Terms and waveforms in accordance with ITU-T Rec. K. 12; IEC 61643-311  $\,$ 

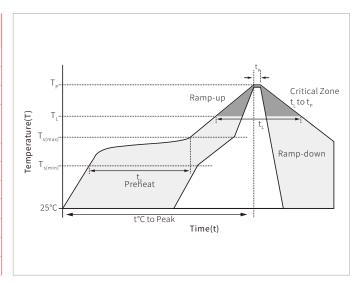


# **SOLDERABILITY TEST**

| Solderability                            |             |  |
|--|-------------|--|
| Solder Pot Temperature Solder Dwell Time |             |  |
| 245°C ± 5°C                              | 4-6 seconds |  |

# **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)<br>Temp ( $T_L$ ) to peak | 3°C/second max     |  |
| T <sub>s(max)</sub> to T <sub>L</sub> - Ramp-up Rate |   | 5 C/Second max     |  |
| Deflam   | Temperature (T <sub>L</sub> ) (Liquidus)        | 217°C              |  |
| Reflow   | Time(min to max)(t <sub>s</sub> )               | 60 – 150 seconds   |  |
| Peak Tem   | nperature (T,)                                  | 260 °C             |  |
| Time within 5°C of actual peak Temperature (tp)      |   | 20-40 seconds      |  |
| Ramp-down Rate                                       |   | 6°C/second max     |  |
| Time 25°C to peak Temperature (T♭)                   |   | 8 minutes max.     |  |
| Do not exceed  |   | 260°C              |  |



# **ORDERING INFORMATION**

| Part Number | Size          | QTY/Reel | Reel Size |
|-------------|---------------|----------|-----------|
| SG4035B090  | 4.0*3.5*3.5mm | 2500PCS  | 13"       |



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