

### **FEATURES**

Surface Mounting Design 4.5\*3.2\*2.7mm

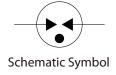
High Current Handling Capability 2000A @ 8/20 µs

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**

| lcon        | Solderability                      |  |
|-------------|------------------------------------|--|
| RoHS        | Compliance with 2011/65/EU         |  |
| HF          | Compliance with IEC61249-2-21:2003 |  |
| <b>P6</b>   | Mean lead free                     |  |
| <b>.</b> R. | 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                               |    |
|-----------------------------------|-----------------------|--------------------------------------|----|
| DC Blocking Voltage 1)            | 100V/s                | 160-240                              |    |
| Impulse Spark-over Voltage        | At 1kV/μs             | for 99 % of measured values ≤ 800    |    |
| impuise Spain-over voltage        | At 1kV/μs             | Typical values of distribution ≤ 700 | V  |
| Impulse Discharge Current 2)      | 8/20µs                | 2000                                 |    |
| Insulation Resistance             | DC=100V               | ≥ 1                                  | GΩ |
| Capacitance at 1MHz               | V <sub>DC</sub> =0.5V | ≤ 1.0                                |    |
| Operating And Storage Temperature |                       | -40-125                              | °C |

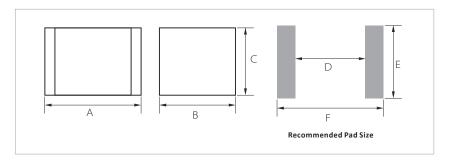
<sup>1)</sup> In ionized mode

# **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

# PRODUCT DIMENSIONS AND RECOMMENDED SOLDERING PAD



| Ref. | mm        |  |
|------|-----------|--|
| А    | 4.5±0.3mm |  |
| В    | 3.2±0.3mm |  |
| С    | 2.7±0.3mm |  |
| D    | 2.8mm     |  |
| E    | 4.0mm     |  |
| F    | 5.2mm     |  |

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

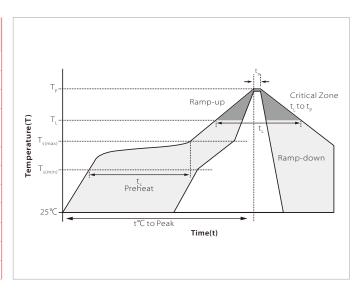


# **SOLDERABILITY TEST**

| 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 ramp up rate (Liquidus)Temp (T <sub>L</sub> ) to peak |                                  | 3°C/second max     |  |
| T <sub>s(max)</sub> to T <sub>L</sub> - Ramp-up Rate          |                                  |                    |  |
| D - A   | Temperature ( $T_L$ ) (Liquidus) | 217℃               |  |
| Reflow  | Time(min to max)( $t_s$ )        | 60 – 150 seconds   |  |
| Peak Temperature (T <sub>p</sub> )                            |                                  | 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 |
|-------------|---------------|----------|-----------|
| SG4532B200  | 4.5*3.2*2.7mm | 2500PCS  | 13"       |



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