

### **FEATURES**

| Size Design 5.0\*5.0\*7.5mm

High Current Handling Capability 5000A @ 8/20 μs

Low Capacitance and Insertion Loss

| Quick Response and Long Service Life

| Moisture sensitivity level:Level 1



5.0\*5.0\*7.5mm

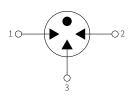
### **APPLICATION INFORMATION**



Repeaters, Modems

| Telephone Interface,Line cards.

Data communication equipment.



Schematic Symbol

## **AGENCY APPROVALS**

| lcon        | Solderability                      |  |
|-------------|------------------------------------|--|
| RoHS        | Compliance with 2011/65/EU         |  |
| HF          | Compliance with IEC61249-2-21:2003 |  |
| <b>P</b>    | Mean lead free                     |  |
| <b>IR</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                         | Symbol                | Rating                              | Unit |
|-----------------------------------|-----------------------|-------------------------------------|------|
| DC Blocking Voltage 1)            | 100V/s                | 160-240                             | V    |
| 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                | 5                                   | KA   |
| Insulation Resistance             | DC=100V               | ≥1                                  | GΩ   |
| Capacitance at 1MHz               | V <sub>DC</sub> =0.5V | ≤1                                  | pF   |
| Operating and Storage Temperature |                       | -40~90                              | °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°C; Time of dip soldering: 10s,1time  |  |

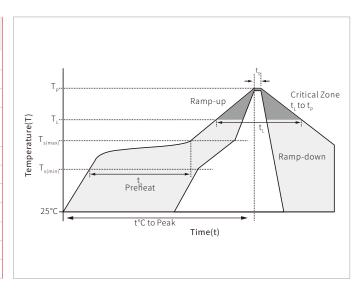
**NOTE:**Up-screen program can be specified by customer's request via contacting Semiware service

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

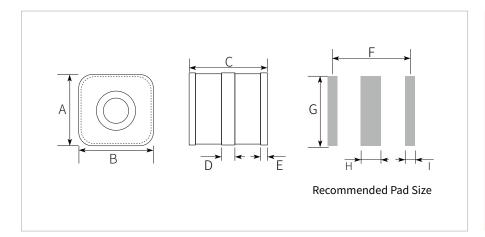


# **REFLOW PROFILE**

| 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     |  |
|   | $T_s(max)$ to $T_L$ - Ramp-up Rate              |                    |  |
| Reflow  | Temperature (T <sub>∟</sub> ) (Liquidus)        | 217°C              |  |
| Renow   | $Time(min\ to\ max)(t_s)$                       | 60~150 seconds     |  |
| Peak Tem  | nperature (T₅)                                  | 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              |  |



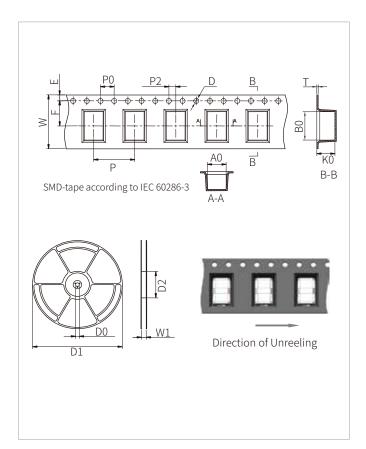
# **PRODUCT DIMENSIONS**



| Ref. | Outline Dimensions |  |
|------|--------------------|--|
|      | Millimeters        |  |
| А    | 5.0±0.2            |  |
| В    | 5.0±0.2            |  |
| С    | 7.5±0.3            |  |
| D    | 1.5±0.3            |  |
| E    | 0.5±0.2            |  |
| F    | 6.4                |  |
| G    | 5.5                |  |
| Н    | 2.8                |  |
| I    | 1.6                |  |



# TAPE AND REEL SPECIFICATION



| Ref. | Dimensions   |                    |  |
|------|--------------|--------------------|--|
| Ket. | Millimeters  | Inches             |  |
| W    | 16±0.3       | 0.630±0.012        |  |
| A0   | 5.4±0.1      | 0.213±0.004        |  |
| В0   | 8.4±0.1      | 0.331±0.004        |  |
| K0   | 5.3±0.1      | 0.209±0.004        |  |
| Р    | 12±0.1       | 0.472±0.004        |  |
| F    | 7.5±0.1      | 0.295±0.004        |  |
| Е    | 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        |  |
| Т    | 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         |  |

# **ORDERING INFORMATION**

| Part Number | Size          | QTY/Reel | Reel Size |
|-------------|---------------|----------|-----------|
| SG3D05B200B | 5.0*5.0*7.5mm | 1000PCS  | 13 "      |



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#### By QR Code





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