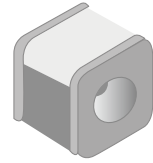
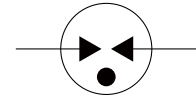


## FEATURES

- | Surface Mounting Design 5.0\*5.0\*4.2mm
- | High Current Handling Capability 5000A @ 8/20  $\mu$ s
- | Low Capacitance and Insertion Loss
- | Quick Response and Long Service Life
- | Moisture sensitivity level: Level 1



5.0\*5.0\*4.2mm





Schematic Symbol

## 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 |
|  | Mean lead free                     |
|  | 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                | 480-720                                    | V          |
| Impulse Spark-over Voltage        | At 1kV/ $\mu$ s       | for 99 % of measured values $\leq$ 1300    | V          |
|                                   | At 1kV/ $\mu$ s       | Typical values of distribution $\leq$ 1200 | V          |
| Impulse Discharge Current 2)      | 8/20 $\mu$ s          | 5000                                       | A          |
| AC Discharge Current              | 50Hz, 1S, 10times     | 5  | A          |
| Insulation Resistance             | DC=100V               | $\geq$ 1                                   | G $\Omega$ |
| Capacitance at 1MHz               | V <sub>DC</sub> =0.5V | $\leq$ 0.8                                 | pF         |
| Operating and Storage Temperature |                       | -40-125                                    | °C         |

1) In ionized mode

2) Terms and waveforms in accordance with ITU-T Rec. K. 12; IEC 61643-21

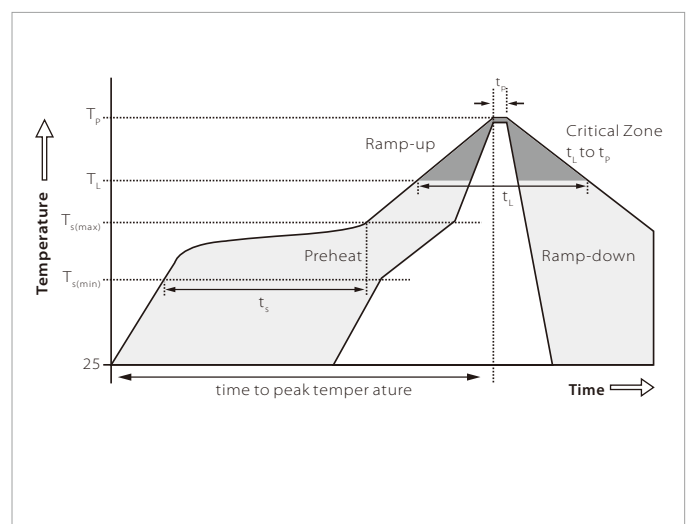
## ENVIRONMENTAL RELIABILITY CHARACTERISTICS

| 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 $\pm$ 5°C; Time of dip soldering: 10s, 1time |

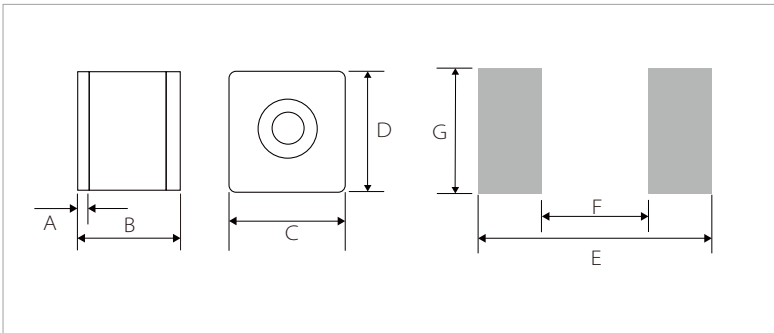
**NOTE:** Up-screen program can be specified by customer's request via contacting Semiware service

## REFLOW PROFILE

| Reflow Condition   |  | Lead-free assembly |
|--|--|--------------------|
| Pre Heat   | Temperature Min                          | 150°C              |
|  | Temperature Max                          | 200°C              |
|  | Time(min to max)                         | 60-180 secs        |
| Average ramp up rate (Liquidus)Temp (T <sub>L</sub> ) to peak T <sub>s</sub> (max)to T <sub>L</sub> - Ramp-up Rate |  | 3°C/second max     |
| Reflow   | Temperature (T <sub>L</sub> ) (Liquidus) | 217°C              |
|  | Temperature (T <sub>L</sub> )            | 60-150 seconds     |
| Peak Temperature (T <sub>p</sub> )   |  | 260+0/-5 °C        |
| Time within 5°C of actual peak Temperature (t <sub>p</sub> )   |  | ~10 seconds        |
| Ramp-down Rate   |  | 6°C/second max     |
| Time 25°C to peak Temperature (T <sub>p</sub> )  |  | 8 minutes max.     |
| Do not exceed  |  | 260°C              |

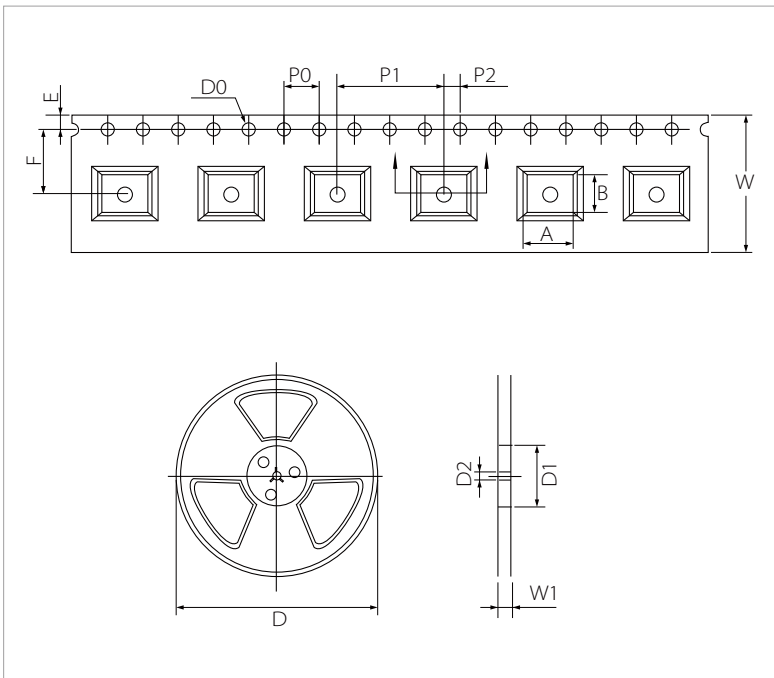


## PRODUCT DIMENSIONS AND RECOMMENDED SOLDERING PAD



| Ref. | mm      |
|------|---------|
| A    | 0.5±0.1 |
| B    | 4.2±0.3 |
| C    | 5.0±0.2 |
| D    | 5.0±0.2 |
| E    | 4.7     |
| F    | 2.5     |
| G    | 5.5     |

## PACKAGE REEL INFORMATION



| Ref. | mm        | inch          |
|------|-----------|---------------|
| A    | 5.5±0.1   | 0.217±0.004   |
| B    | 4.7±0.2   | 0.185±0.008   |
| D0   | Φ 1.5±0.1 | Φ 0.059±0.004 |
| P0   | 4.0±0.1   | 0.157±0.004   |
| P1   | 12.0±0.1  | 0.472±0.004   |
| P2   | 2.0±0.1   | 0.079±0.004   |
| E    | 1.75±0.1  | 0.069±0.004   |
| F    | 7.5±0.1   | 0.295±0.004   |
| W    | 16.0±0.3  | 0.630±0.012   |
| D    | Φ 330.0   | Φ 13.0        |
| D1   | Φ 50Min   | Φ 1.97Min     |
| D2   | Φ 13±0.15 | 0.512±0.006   |
| W1   | 16.8±2.0  | 0.661±0.079   |

## ORDERING INFORMATION

| Part Number | Size          | QTY/Reel | Reel Size |
|-------------|---------------|----------|-----------|
| SG5042B600  | 5.0*5.0*4.2mm | 1000     | 13"       |

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