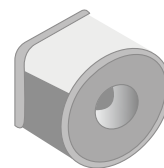
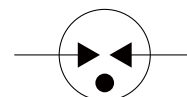


## FEATURES

- | Surface Mounting Design 8.3\*8.3\*6.0mm
- | High Current Handling Capability 20000A @ 8/20  $\mu$ s
- | Low Capacitance and Insertion Loss
- | Quick Response and Long Service Life
- | Moisture sensitivity level: Level 1



8.3\*8.3\*6.0mm




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 Spark-over Voltage 1)            | 100V/s               | 184-276                                   | V          |
| Impulse Spark-over Voltage          | At 1kV/ $\mu$ s      | for 99 % of measured values $\leq 700$    |            |
|                                     | At 1kV/ $\mu$ s      | Typical values of distribution $\leq 650$ |            |
| Discharge Current (8/20 $\mu$ s) 3) | 10 times             | 20  | KA         |
| AC Discharge Current                | 50Hz, 1S             | 20  | A          |
| Minimum Insulation Resistance       | Test Voltage DC=100V | 1   | G $\Omega$ |
| Max. Capacitance 1MHz               | $V_{DC}=0.5V$        | 1.5                                       | 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

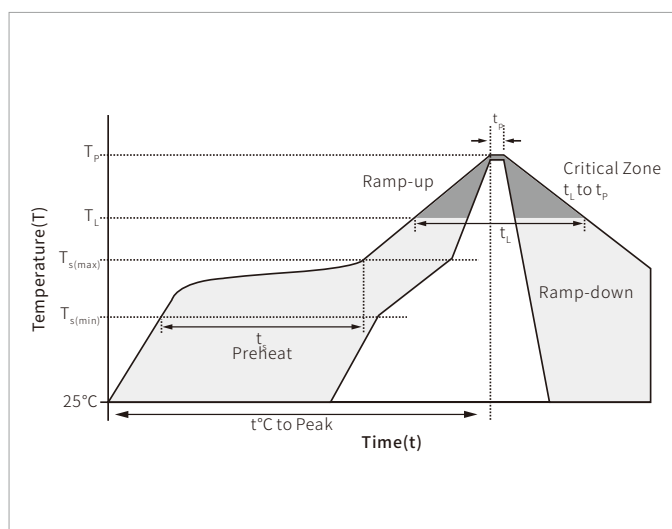
## ENVIRONMENTAL RELIABILITY CHARACTERISTICS

| 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 |

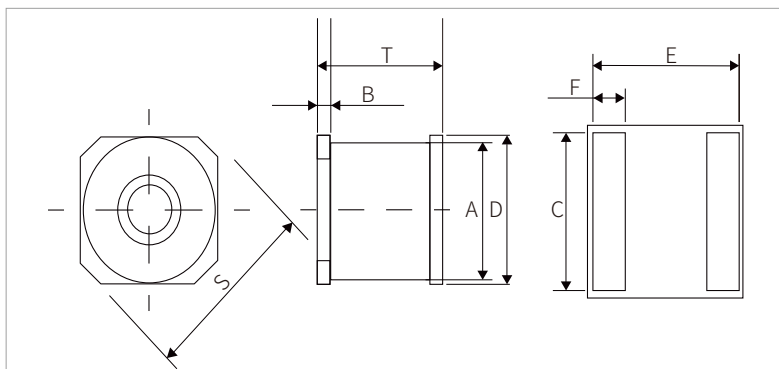
**NOTE:**Up-screen program can be specified by customer's request via contacting Semiware service

## 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 |  | 3°C/second max     |
| T <sub>s</sub> (max)to T <sub>L</sub> - Ramp-up Rate          |  |                    |
| Reflow  | Temperature (T <sub>L</sub> ) (Liquidus) | 217°C              |
|   | Time(min to max)(t <sub>s</sub> )        | 60 – 150 seconds   |
| Peak Temperature (T <sub>p</sub> )                            |  | 260 °C             |
| Time within 5°C of actual peak Temperature (tp)               |  | 10-30 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              |

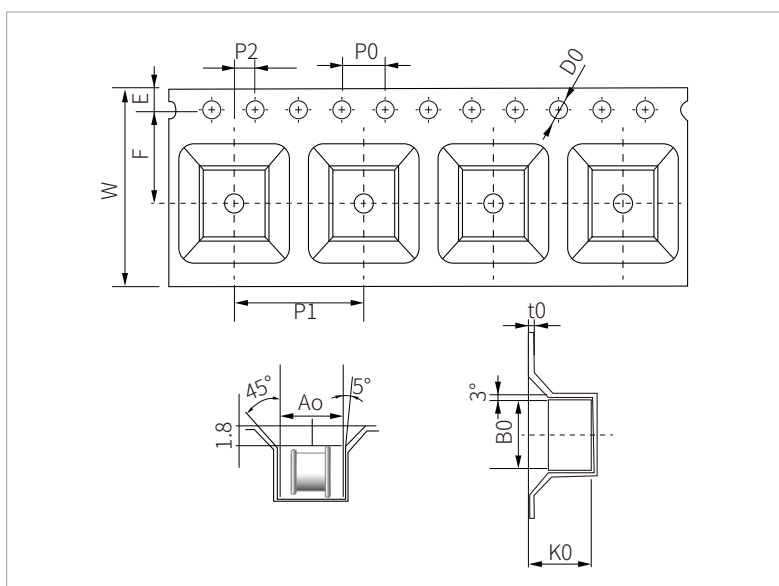


## DIMENSIONS AND RECOMMENDED SOLDERING PAD



| Ref. | mm       |
|------|----------|
| A    | 8.0±0.2  |
| B    | 0.5±0.1  |
| C    | 9.0      |
| D    | 8.3±0.2  |
| E    | 6.7      |
| F    | 1.2      |
| T    | 6.0±0.25 |
| S    | 9.0±0.4  |

## PACKAGE REEL INFORMATION



| Ref. | mm        |
|------|-----------|
| W    | 16.0±0.3  |
| P0   | 4.0±0.1   |
| P1   | 12.0±0.1  |
| P2   | 2.0±0.1   |
| D0   | 1.55±0.05 |
| E    | 1.75±0.1  |
| F    | 7.5±0.1   |
| A0   | 6.35±0.1  |
| K0   | 6.55±0.1  |
| B0   | 8.65±0.1  |
| t0   | 0.5±0.1   |

## ORDERING INFORMATION

| Part Number | Size          | Marking  | QTY/Reel | Reel Size |
|-------------|---------------|--|----------|-----------|
| SG2R08B230A | 8.3*8.3*6.0mm |  SG230 08 | 600      | 13"       |

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Wechat

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