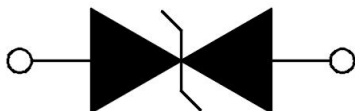
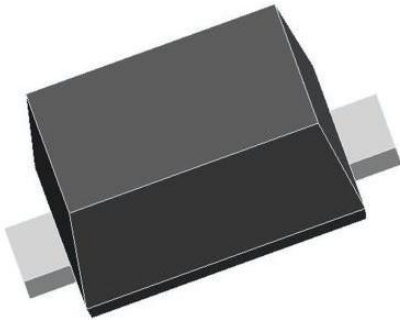


Features

- 2-pin lead-less package
- Junction capacitance (Max value: 20pF)
- Peak Pulse current (8/20 μ s) Max:8A
- IEC61000-4-2 (ESD) \pm 30kV (air), \pm 30kV (contact)
- Low clamping voltage
- Low leakage current
- Working voltages:5V
- RoHS Compliant

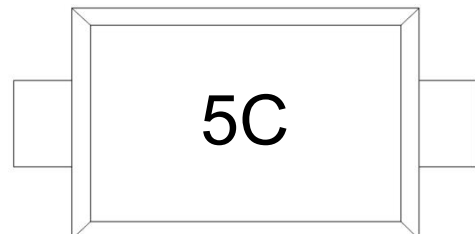


Bi-directional

Mechanical Characteristics

- Package: SOD-523
 - Lead Finish:Matte Tin
 - Case Material: "Green" Molding Compound.
 - UL Flammability Classification Rating 94V-0
 - Moisture Sensitivity: Level 3 per J-STD-020
 - Tape Reel :3000pcs
-
- Cellular Handsets and Accessories
 - Personal Digital Assistants
 - Notebooks and Handhelds
 - Portable Instrumentation,Digital Cameras
 - Peripherals, Audio Players, Industrial Equipment

Marking Information



5C =Marking Code

Absolute Maximum Ratings (T=25°C, RH=45%-75%, unless otherwise noted)

| Parameters | Symbol | Value | Unit |
|--|------------------|-------------|------|
| Peak Pulse Power (tp=8/20µs waveform) | P _{PP} | 120 | W |
| Peak Pulse Current (8/20µs) | I _{PP} | 8 | A |
| ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact) | V _{ESD} | ±30 ±30 | KV |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)

| Parameter | Symbol | Test Condition | Min | Typ | Max | Unit |
|---------------------------|------------------|--|-----|-----|-----|------|
| Reverse Working Voltage | V _{RWM} | | | | 5 | V |
| Reverse Breakdown Voltage | V _{BR} | I _R = 1mA | 5.6 | | 8 | V |
| Reverse Leakage Current | I _R | V _R = 5V | | | 0.2 | µA |
| Clamping voltage | V _C | I _{PP} = 1A, T _P =8/20us | | | 10 | V |
| Clamping voltage | V _C | I _{PP} = 8A, T _P =8/20us | | | 15 | V |
| Junction capacitance | C _J | V _R =0V, f =1MHz | | | 20 | pF |

Typical Characteristics

FIG1: Power rating derating curve

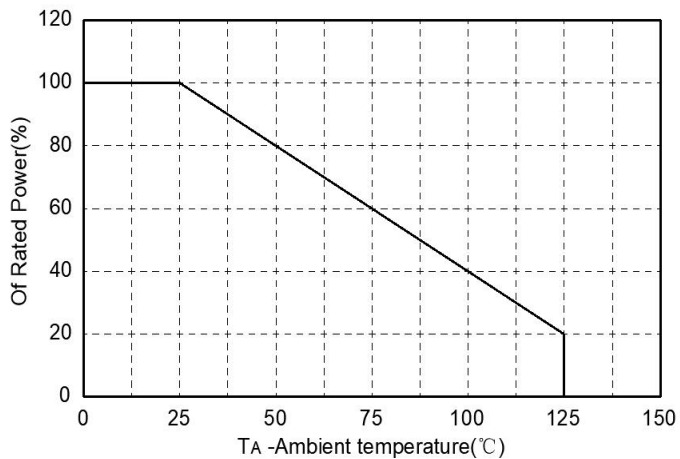


FIG2: pulse Waveform

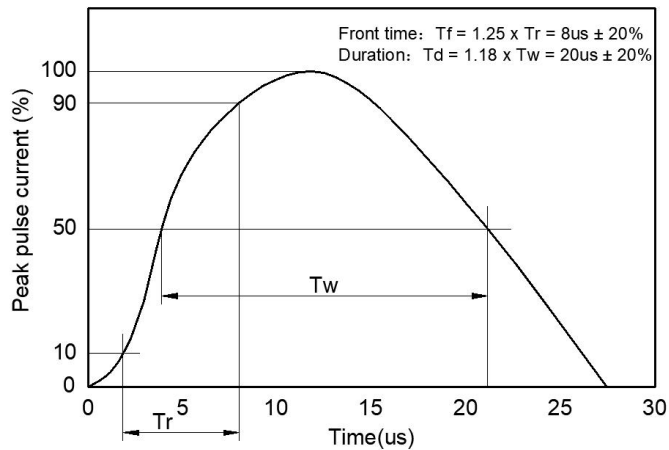


FIG3: Capacitance between terminals characteristics

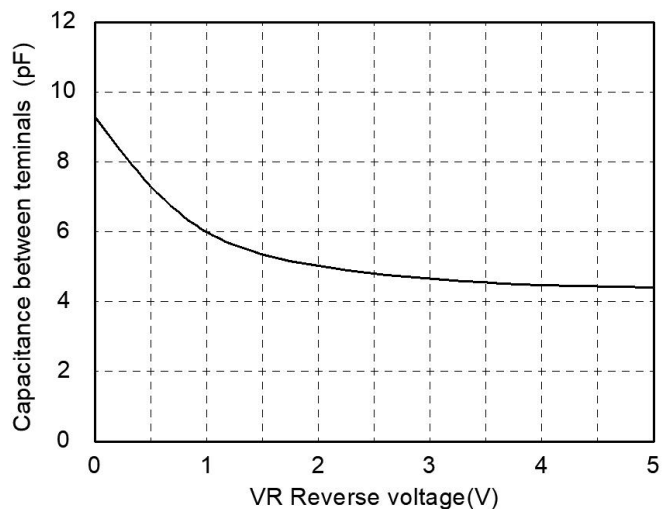
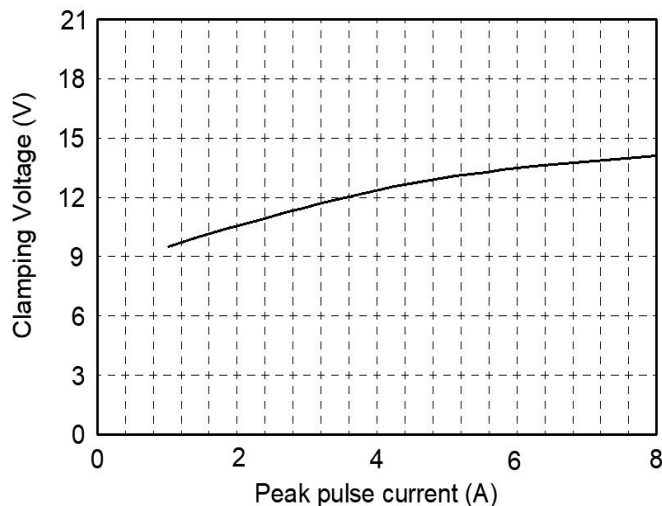
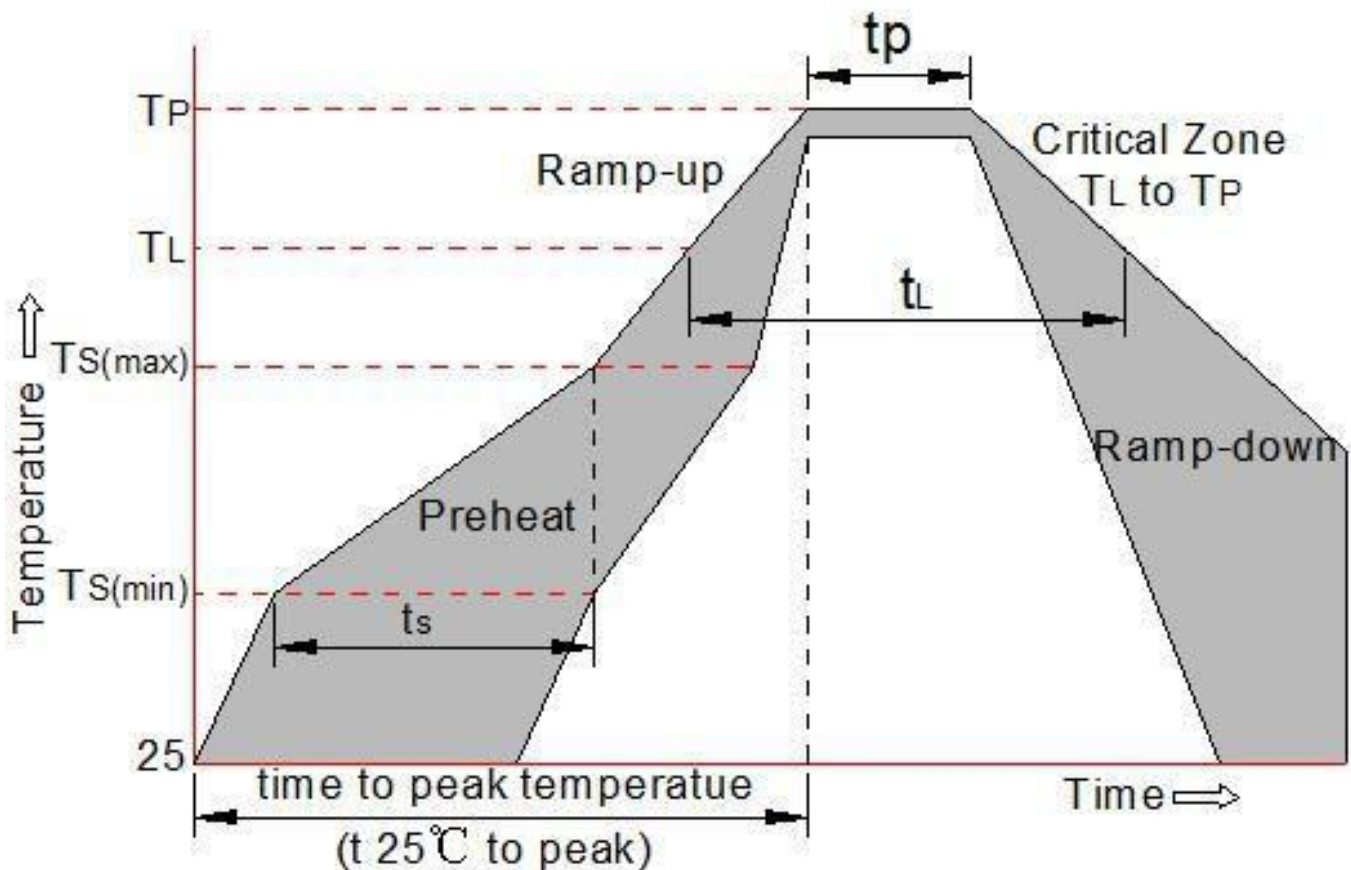


FIG4: Clamping Voltage vs. Peak Pulse Current

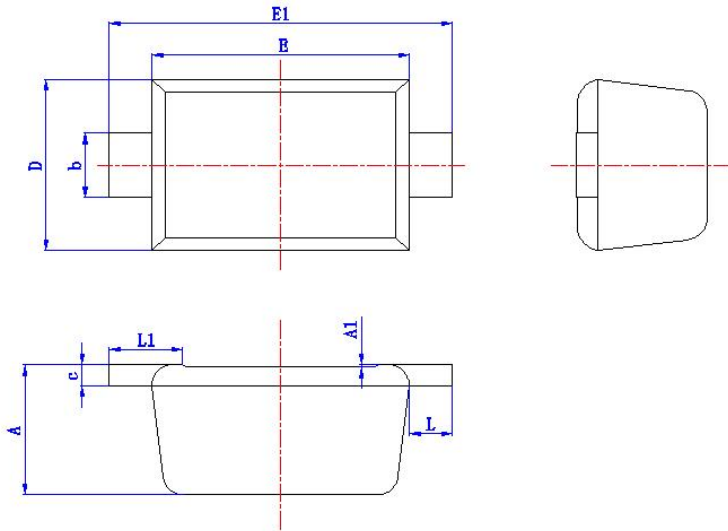


Soldering parameters

| Reflow Condition | | Pb-Free assembly (see as bellow) |
|---|-----------------------------------|-------------------------------------|
| Pre Heat | -Temperature Min ($T_{s(min)}$) | +150°C |
| | -Temperature Max($T_{s(max)}$) | +200°C |
| | -Time (Min to Max) (t_s) | 60-180 secs. |
| Average ramp up rate (Liquid us Temp (T_L) to peak) | | 3°C/sec. Max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 3°C/sec. Max |
| Reflow | -Temperature(T_L) (Liquid us) | +217°C |
| | -Temperature(t_L) | 60-150 secs. |
| Peak Temp (T_p) | | +260(+0/-5)°C |
| Time within 5°C of actual Peak Temp (t_p) | | 30 secs. Max |
| Ramp-down Rate | | 6°C/sec. Max |
| Time 25°C to Peak Temp (T_p) | | 8 min. Max |
| Do not exceed | | +260°C |

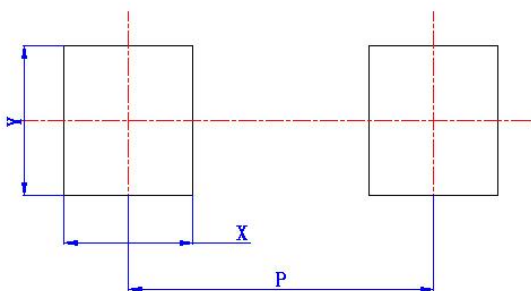


Package mechanical data



| Symbol | Millimeters | |
|--------|-------------|------|
| | Min. | Max. |
| A | 0.50 | 0.75 |
| A1 | 0 | 0.05 |
| D | 0.68 | 0.95 |
| E | 1.10 | 1.35 |
| E1 | 1.50 | 1.80 |
| b | 0.25 | 0.35 |
| c | 0.08 | 0.15 |
| L | 0.13 | 0.30 |
| L1 | (0.3) | |

Suggested Land Pattern



| Symbol | Dimension in Millimeters |
|--------|--------------------------|
| | Typ. |
| X | (0.6) |
| Y | (0.7) |
| P | (1.42) |