

FEATURES

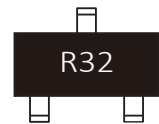
- | 100W Peak Pulse Power per Line (tp=8/20μs)
- | Low Leakage current
- | Operating Voltage: 5 V
- | Low Clamping Voltage
- | Protects Two Lines

APPLICATIONS

- | Cellular Handsets & Accessories
- | Antennas
- | Two I/O Lines
- | Keypads, Side Keys, LCD Displays
- | Circuit Signal Lines
- | Notebooks & Desktop Computers
- | Portable Instrumentation



SOT-23



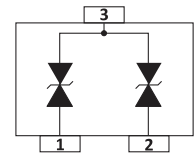
Marking

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±30kV (air), ±25kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

| | |
|-------------|------------------------------------|
| RoHS | Compliance with 2011/65/EU |
| HF | Compliance with IEC61249-2-21:2003 |



Schematic Symbol

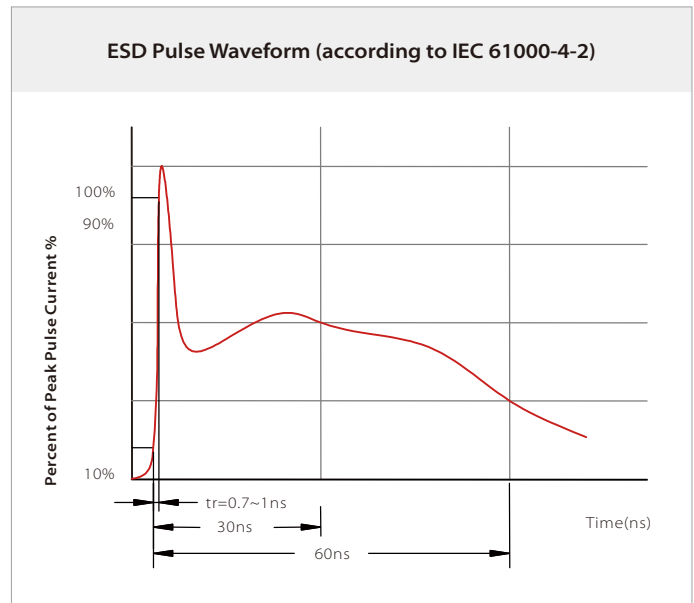
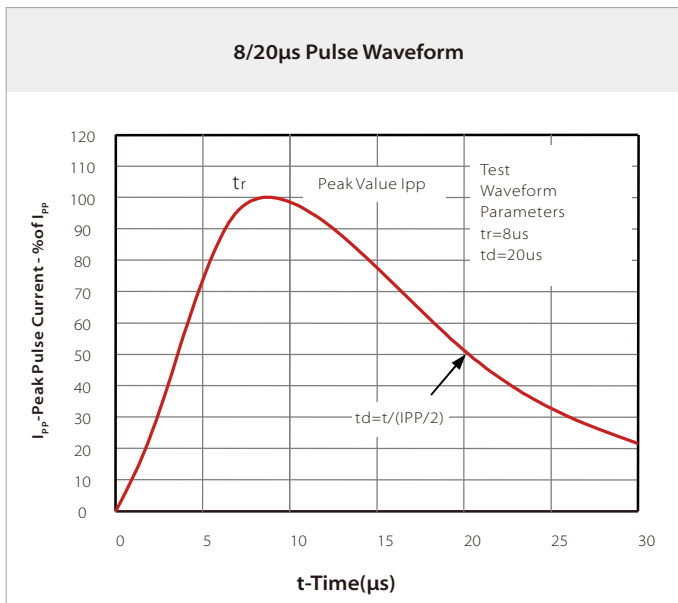
THERMAL CONSIDERATIONS

| Symbol | Parameter | Value | Unit |
|-----------|---------------------------------------|-------------|-------|
| P_{PP} | Peak Pulse Power (tp=8/20μs waveform) | 100 | Watts |
| T_J | Operating Temperature Range | -55 to +150 | °C |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS

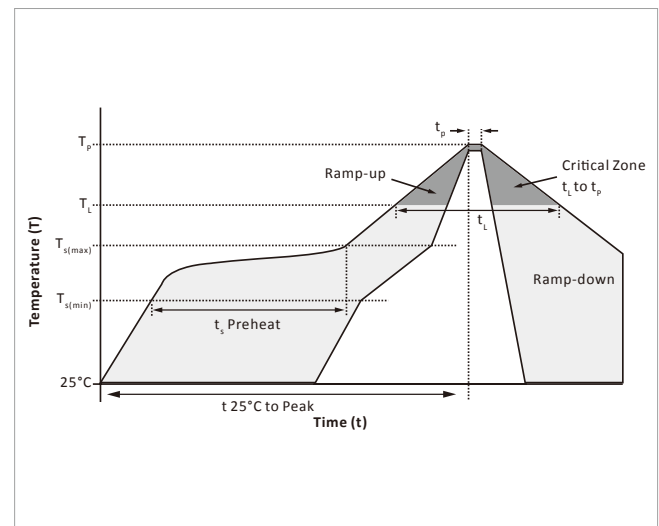
| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|-----------|--------------------------------|--------------------------------------|------|------|------|------|
| V_{RWM} | Reverse Stand-off Voltage | | | | 5 | V |
| V_{BR} | Reverse Breakdown Voltage | $I_T=1\text{mA}$ | 6 | 6.8 | 8.5 | V |
| I_R | Reverse Leakage Current | $V_{RWM}=5\text{V}$ | | | 0.1 | μA |
| V_C | Clamping Voltage (Tp=8/20us) | $I_{pp}=1\text{A}, tp=8/20\text{us}$ | | | 15 | V |
| V_C | Clamping Voltage (Tp=8/20us) | $I_{pp}=4\text{A}, tp=8/20\text{us}$ | | | 25 | V |
| I_{PP} | Peak Pulse Current (Tp=8/20us) | tp=8/20us | | | 4 | A |
| C_J | Off State Junction Capacitance | $V_R=0\text{V}, f=1\text{MHz}$ | | 0.5 | 0.6 | pF |

CHARACTERISTIC CURVES

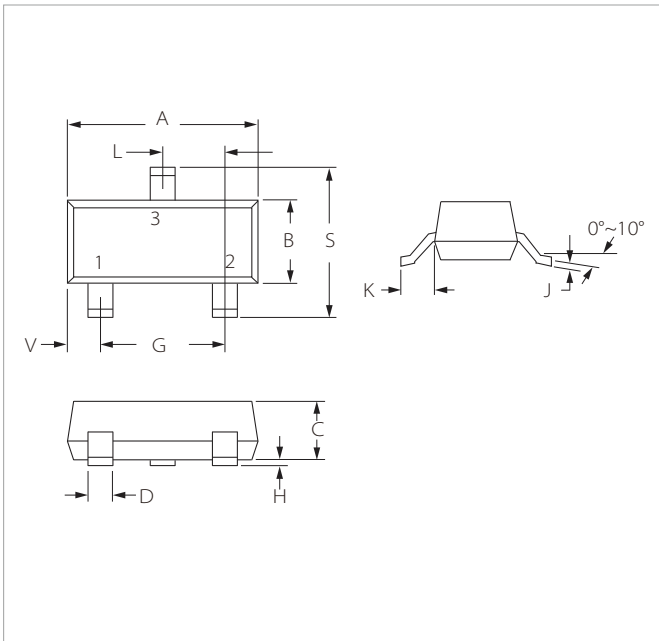


SOLDERING PARAMETERS

| Reflow Condition | | Lead-free assembly |
|--|----------------------------------|--------------------|
| Pre Heat | Temperature Max ($T_{s(min)}$) | 150°C |
| | Temperature Max ($T_{s(max)}$) | 200°C |
| | Time (min to max) (t_s) | 60 – 180 secs |
| Average ramp up rate (Liquidus Temp (T_L) to peak) | | 3°C/second max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 3°C/second max |
| Reflow | Temperature (T_L) (Liquidus) | 217°C |
| | Time (min to max) (t_L) | 60 – 150 seconds |
| Peak Temperature (T_p) | | 260°C |
| Time within 5°C of actual peak Temperature (t_p) | | 20 – 40 seconds |
| Ramp-down Rate | | 6°C/second max |
| Time 25°C to peak Temperature (T_p) | | 8 minutes max. |
| Do not exceed | | 260°C |

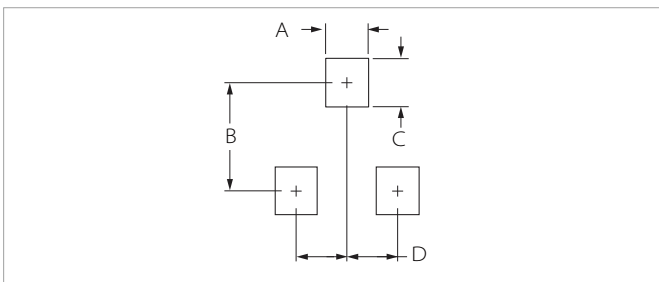


SOT-23 PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 2.80 | 3.04 | 0.110 | 0.120 |
| B | 1.20 | 1.40 | 0.047 | 0.055 |
| C | 0.89 | 1.11 | 0.035 | 0.044 |
| D | 0.37 | 0.50 | 0.015 | 0.020 |
| G | 1.78 | 2.04 | 0.070 | 0.081 |
| H | 0.01 | 0.10 | 0.001 | 0.004 |
| J | 0.08 | 0.18 | 0.003 | 0.007 |
| K | 0.35 | 0.69 | 0.014 | 0.029 |
| L | 0.89 | 1.02 | 0.035 | 0.040 |
| S | 2.10 | 2.64 | 0.083 | 0.104 |
| V | 0.45 | 0.60 | 0.018 | 0.024 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.71 | 0.97 | 0.028 | 0.038 |
| B | 1.88 | 2.13 | 0.074 | 0.084 |
| C | 0.71 | 0.97 | 0.028 | 0.038 |
| D | 0.81 | 1.07 | 0.032 | 0.042 |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|---------------|-------------------|----------|-----------|
| SE23T10B5.0UB | SOT-23 | 3000PCS | 7" |

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