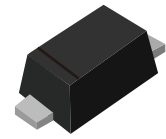


FEATURES

- | 350W Peak Pulse Power per Line (tp=8/20μs)
- | Protects one unidirectional I/O line
- | Working voltages : 24 V
- | Low leakage current
- | Low clamping voltage

APPLICATIONS

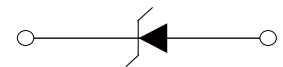
- | Cell Phone Handsets and Accessories
- | Microprocessor based equipment
- | Personal Digital Assistants (PDA's)
- | Notebooks, Desktops, and Servers
- | Portable Instrumentation
- | Networking and Telecom
- | Serial and Parallel Ports
- | Peripherals



SOD-523



Marking



Schematic Symbol

IEC COMPATIBILITY

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

APPROVALS

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

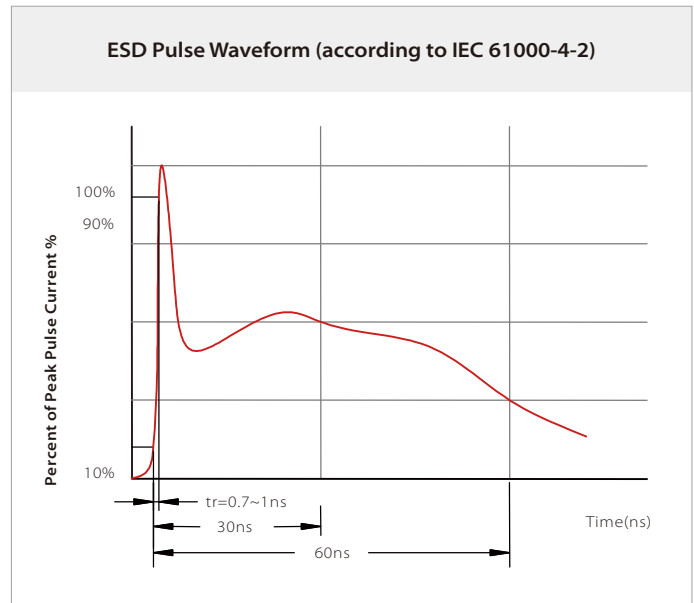
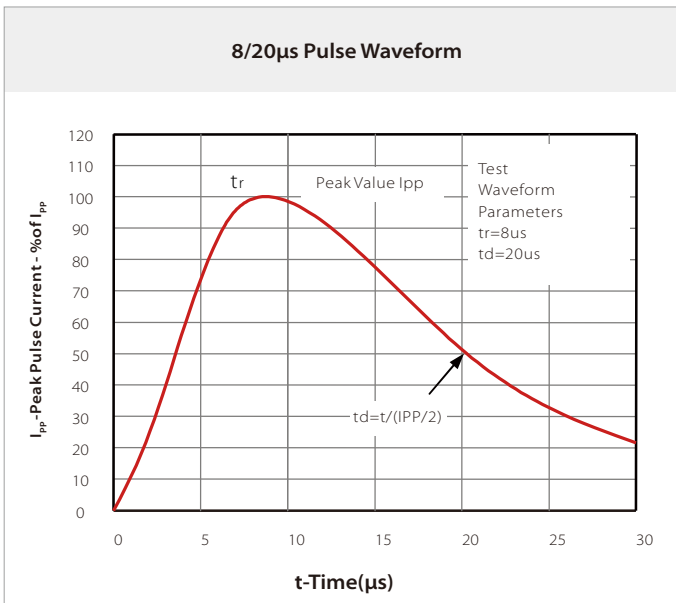
THERMAL CONSIDERATIONS

| Symbol | Parameter | Value | Unit |
|-----------|---------------------------------------|-------------|-------|
| P_{PP} | Peak Pulse Power (tp=8/20μs waveform) | 350 | Watts |
| T_J | Operating Temperature Range | -55 to +150 | °C |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS

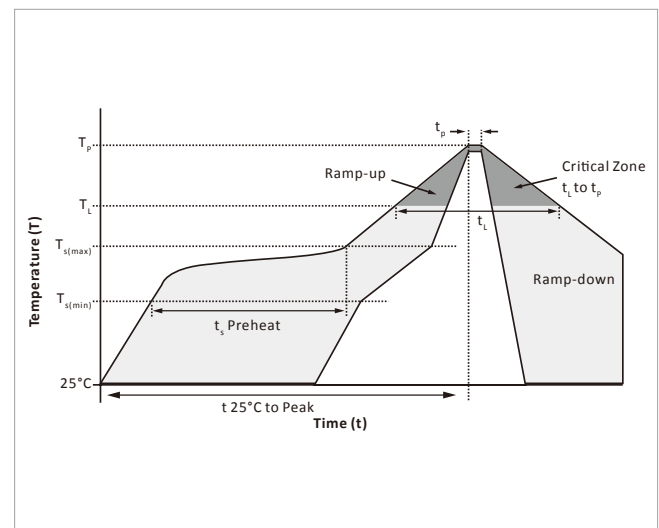
| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|-----------|--------------------------------|--------------------------------------|------|------|------|------|
| V_{RWM} | Reverse Stand-off Voltage | | | | 24 | V |
| V_{BR} | Reverse Breakdown Voltage | $I_T=1\text{mA}$ | 26.7 | | | V |
| I_R | Reverse Leakage Current | $V_{RWM}=24\text{V}$ | | | 1 | μA |
| V_C | Clamping Voltage (Tp=8/20us) | $I_{pp}=1\text{A}, tp=8/20\text{us}$ | | | 43 | V |
| V_C | Clamping Voltage (Tp=8/20us) | $I_{pp}=7\text{A}, tp=8/20\text{us}$ | | | 52 | V |
| I_{pp} | Peak Pulse Current (Tp=8/20us) | tp=8/20us | | | 7 | A |
| C_J | Off State Junction Capacitance | $V_R=0\text{V}, f=1\text{MHz}$ | | | 80 | pF |

CHARACTERISTIC CURVES

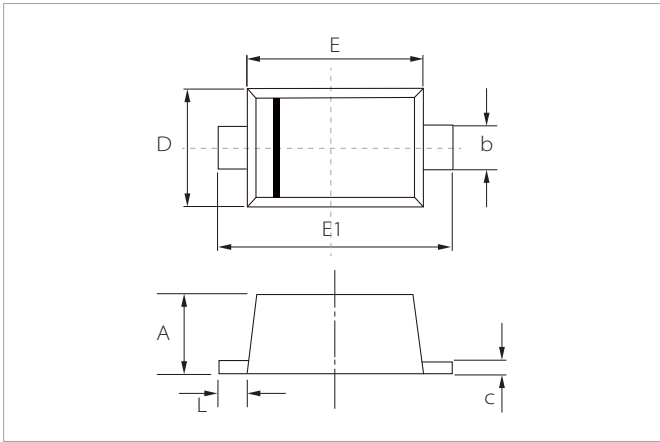


SOLDERING PARAMETERS

| 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 |

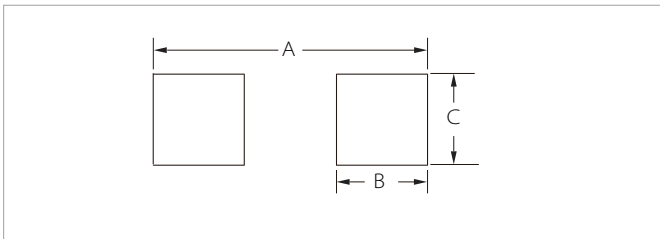


SOD-523 PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 0.50 | 0.80 | 0.020 | 0.031 |
| b | 0.25 | 0.35 | 0.010 | 0.014 |
| c | 0.07 | 0.20 | 0.003 | 0.008 |
| D | 0.70 | 0.90 | 0.028 | 0.035 |
| E | 1.10 | 1.30 | 0.043 | 0.051 |
| E1 | 1.50 | 1.70 | 0.059 | 0.067 |
| L | 0.15 | 0.25 | 0.006 | 0.010 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | | Inches | |
|------|-------------|--|--------|--|
| | Min. | | Min. | |
| A | 2.00 | | 0.0787 | |
| B | 0.60 | | 0.0236 | |
| C | 0.70 | | 0.0276 | |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| SE5D35U24A | SOD-523 | 3000PCS | 7" |

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