

FEATURES

- | 350W Peak Pulse Power per Line (tp=8/20μs)
- | Protects one power or I/O Port
- | Low Clamping Voltage
- | Low Leakage current

APPLICATIONS

- | Ethernet-10/100/1000 Base T
- | Cellular phones
- | I²C Bus Protection
- | Parallel & Serial Port Protection
- | Personal Digital Assistant (PDA)
- | Microcontroller Input Protection
- | WAN/LAN Equipment



SOD-323



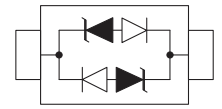
Marking

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 |



Schematic Symbol

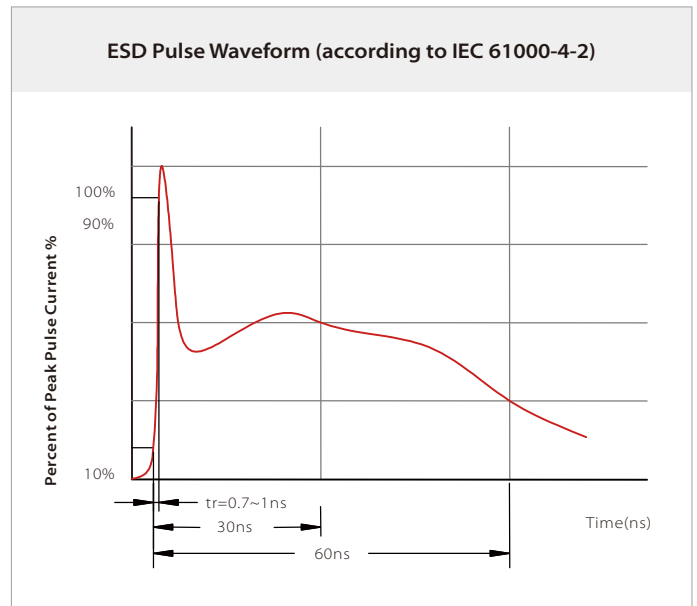
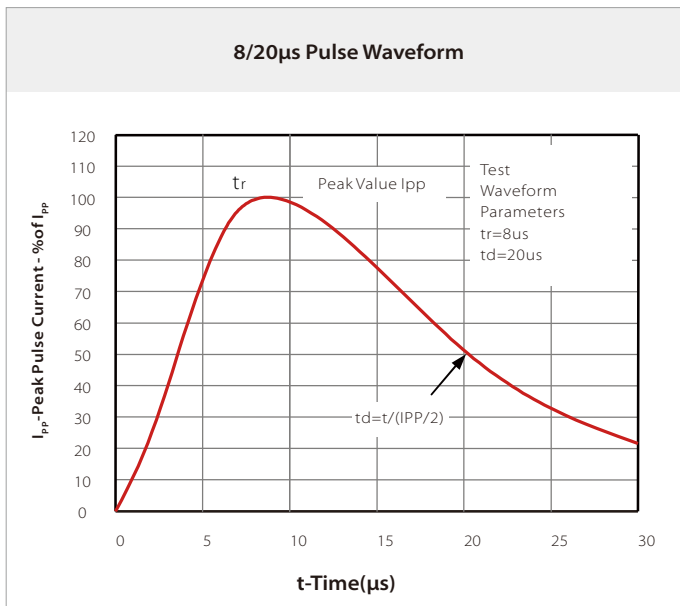
THERMAL CONSIDERATIONS

| 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

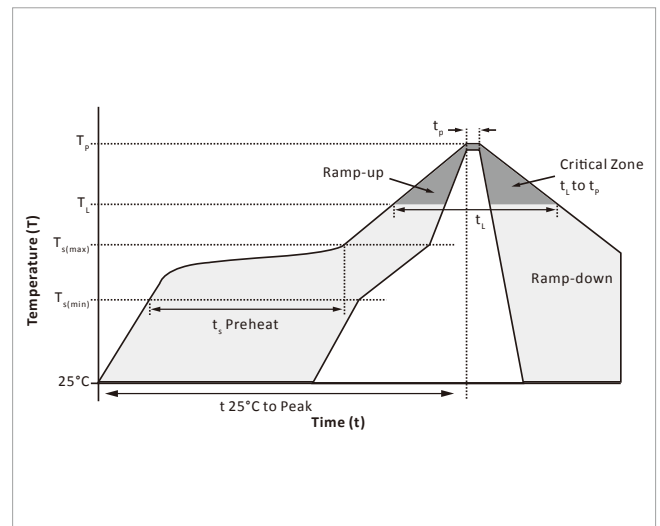
| Symbol | Parameter | Condition | Min. | Typ. | Max. | Unit |
|-----------|--------------------------------|---------------------------------------|------|------|------|------|
| V_{RWM} | Reverse Stand-off Voltage | | | | 8 | V |
| V_{BR} | Reverse Breakdown Voltage | $I_T=1\text{mA}$ | 8.5 | | | V |
| I_R | Reverse Leakage Current | $V_{RWM}=8\text{V}$ | | | 0.2 | μA |
| V_C | Clamping Voltage (Tp=8/20us) | $I_{pp}=1\text{A}, tp=8/20\text{us}$ | | | 14 | V |
| V_C | Clamping Voltage (Tp=8/20us) | $I_{pp}=18\text{A}, tp=8/20\text{us}$ | | | 24 | V |
| I_{PP} | Peak Pulse Current (Tp=8/20us) | tp=8/20us | | | 18 | A |
| C_J | Off State Junction Capacitance | $V_R=0\text{V}, f=1\text{MHz}$ | | 1 | | pF |

CHARACTERISTIC CURVES

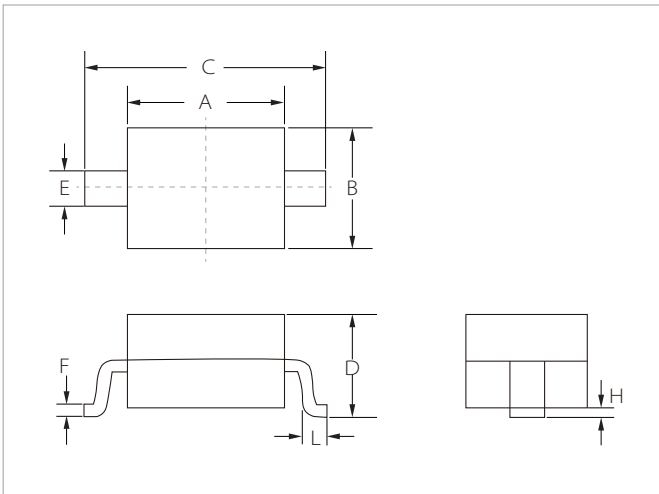


SOLDERING PARAMETERS

| 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 |

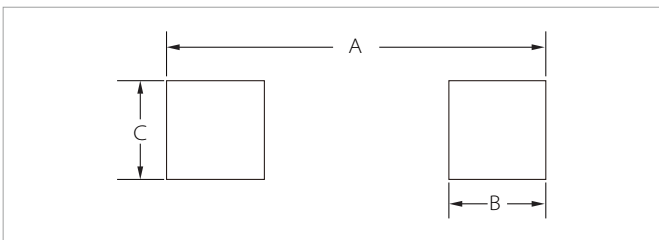


SOD-323 PACKAGE INFORMATION



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 1.60 | 1.90 | 0.063 | 0.075 |
| B | 1.15 | 1.45 | 0.045 | 0.057 |
| C | 2.39 | 2.75 | 0.094 | 0.108 |
| D | 0.80 | 1.10 | 0.031 | 0.043 |
| E | 0.25 | 0.40 | 0.010 | 0.016 |
| F | 0.10 | 0.20 | 0.004 | 0.008 |
| H | - | 0.10 | - | 0.004 |
| L | 0.20 | 0.40 | 0.008 | 0.016 |

RECOMMENDED PAD LAYOUT DIMENSIONS



| Ref. | Millimeters | | Inches | |
|------|-------------|------|--------|-------|
| | Min. | Max. | Min. | Max. |
| A | 2.87 | 3.12 | 0.113 | 0.123 |
| B | 0.66 | 0.91 | 0.026 | 0.036 |
| C | 0.66 | 0.91 | 0.026 | 0.036 |

ORDERING INFORMATION

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| SELC08CI | SOD-323 | 3000PCS | 7" |

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