

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

TVSS5VCES-02GP

Product specification

FEATURES

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (Contact), $\pm 30\text{kV}$ (Air)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- Peak power dissipation: 128W (8/20 μs)
- Protects one I/O line
- Low clamping voltage
- Working voltages : 5V
- Low leakage current


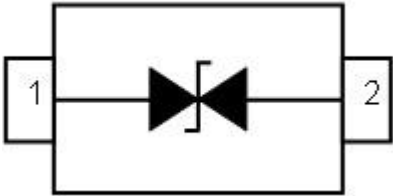

MACHANICAL DATA

- SOD-523 package
- Terminals: Tin plated, solderable per
- MIL-STD-750, method 2026
- Packaging: Tape and Reel
- Reel size: 7 inch
- MSL1

APPLICATIONS

- High Speed Line :USB1.0/2.0, VGA, DVI, SDI,
- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- Projection TV
- Cellular handsets and accessories
- Portable instrumentation
- Peripherals

Reference News

| PACKAGE OUTLINE | PIN CONFIGURATION | Marking |
|--|---|---|
|  <p>SOD-523</p> |  |  |

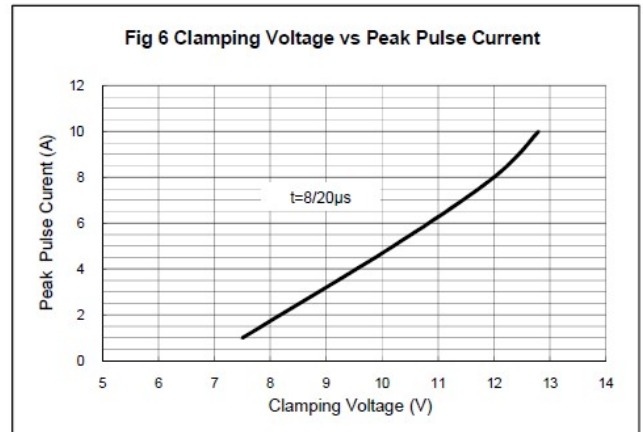
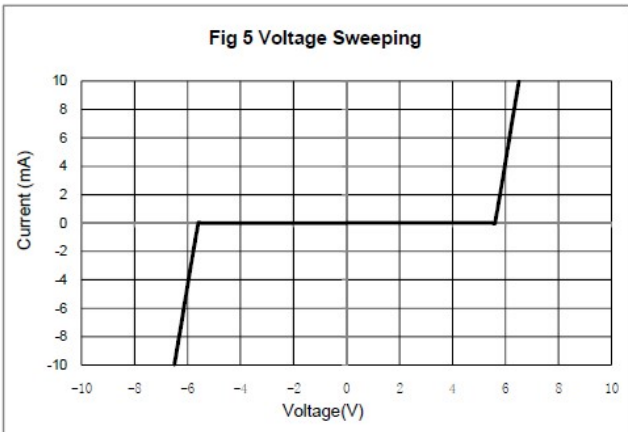
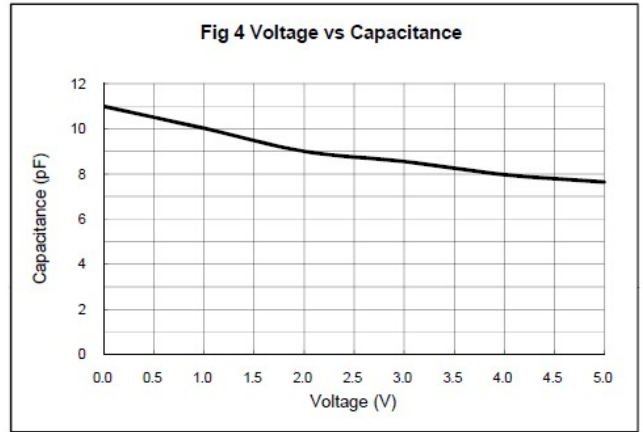
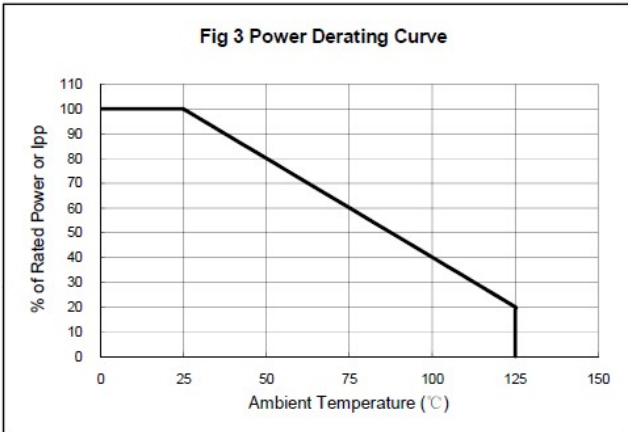
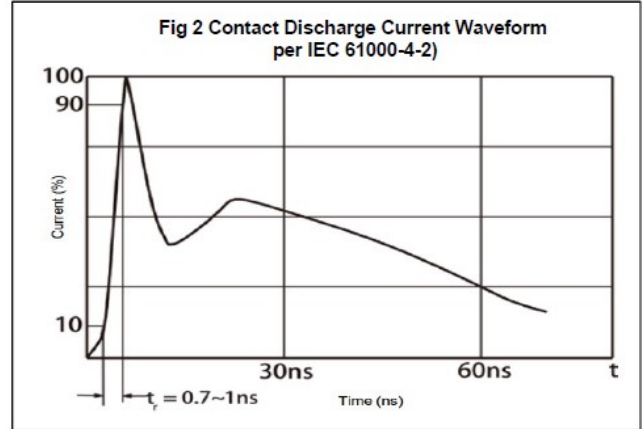
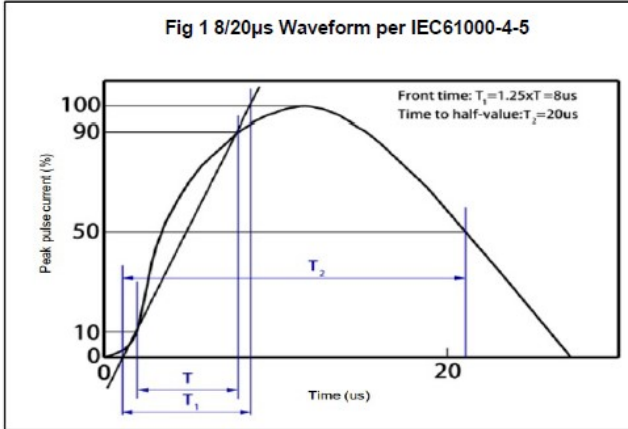
ABSOLUTE MAXIMUM RATING

| Symbol | Parameter | Value | Units |
|------------------|---------------------------------|---------|-------|
| V _{ESD} | ESD per IEC 61000-4-2 (Contact) | ±30 | kV |
| | ESD per IEC 61000-4-2 (Air) | ±30 | |
| P _{PP} | Peak Pulse Power (8/20μs) | 128 | W |
| T _{OPT} | Operating Temperature | -40~150 | °C |
| T _{STG} | Storage Temperature | -40~150 | °C |

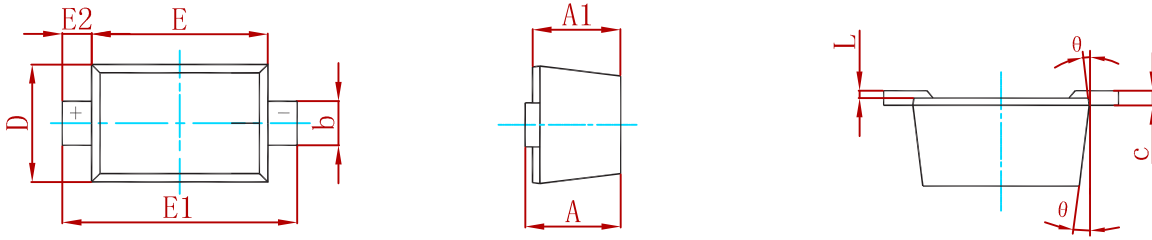
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

| Symbol | Parameter | Test Condition | Min | Typ | Max | Units |
|------------------|---------------------------|--|-----|-----|------|-------|
| V _{RWM} | Reverse Working Voltage | | | | 5.0 | V |
| V _{BR} | Reverse Breakdown Voltage | I _T = 1mA | 5.6 | | 9.0 | V |
| I _R | Reverse Leakage Current | V _{RWM} = 5V | | | 0.1 | μA |
| V _C | Clamping Voltage | I _{PP} = 5A, t _p = 8/20μs | | | 11.6 | V |
| V _C | Clamping Voltage | I _{PPmax} = 8A, t _p = 8/20μs | | | 16.0 | V |
| C _J | Junction Capacitance | V _R = 0V, f = 1MHz | | 10 | 15 | pF |

ELECTRICAL CHARACTERISTICS CURVE

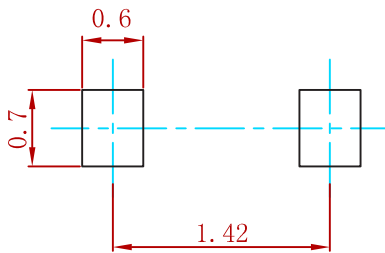


PACKAGE MECHANICAL DATA



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.510 | 0.770 | 0.020 | 0.031 |
| A1 | 0.500 | 0.700 | 0.020 | 0.028 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 0.750 | 0.850 | 0.030 | 0.033 |
| E | 1.100 | 1.300 | 0.043 | 0.051 |
| E1 | 1.500 | 1.700 | 0.059 | 0.067 |
| E2 | 0.200 REF | | 0.008 REF | |
| L | 0.010 | 0.070 | 0.001 | 0.003 |
| θ | 7° REF | | 7° REF | |

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

| P/N | PKG | QTY |
|----------------|---------|------|
| TVSS5VCES-02GP | SOD-523 | 3000 |

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