

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

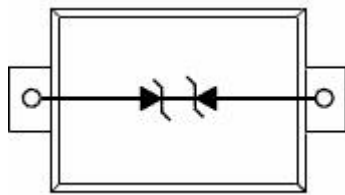
Product data sheet

**Applications**

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

**Features**

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 200 Watts @ 8 x 20  $\mu$ s Pulse
- Low Leakage current
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- IEC61000-4-2 Level 4 ESD Protection
- IEC61000-4-4 Level 4 EFT Protection



SOD-523

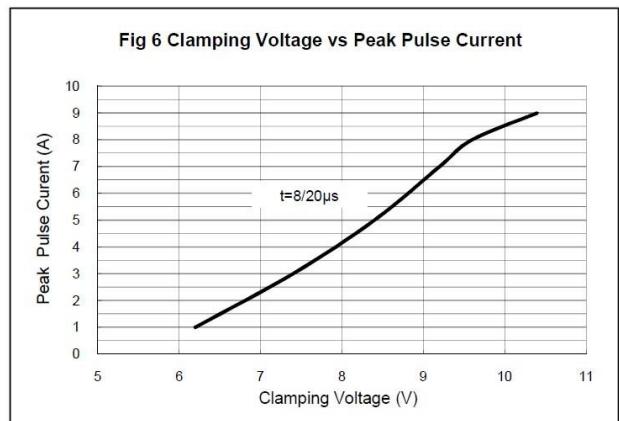
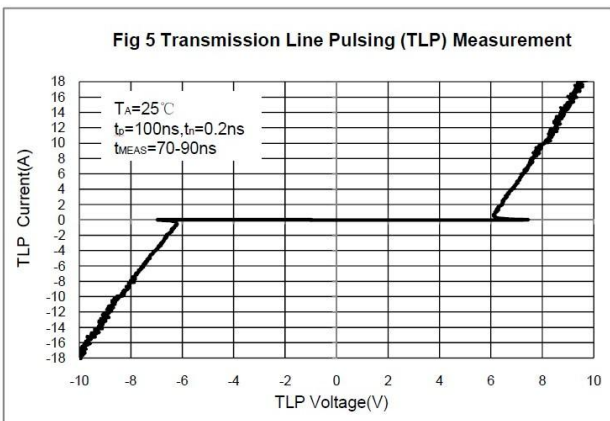
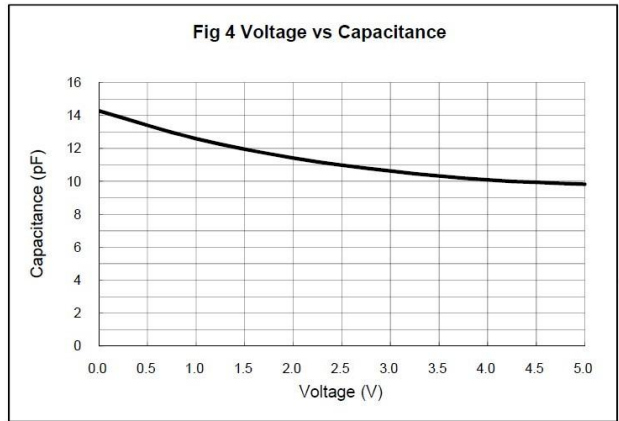
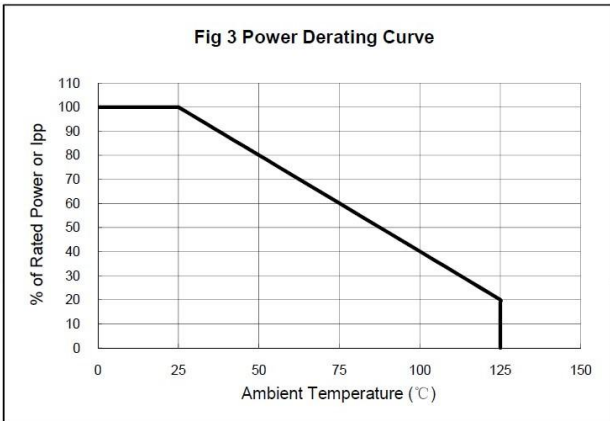
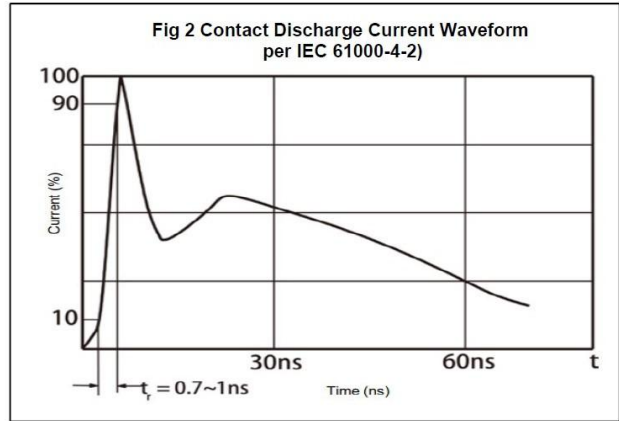
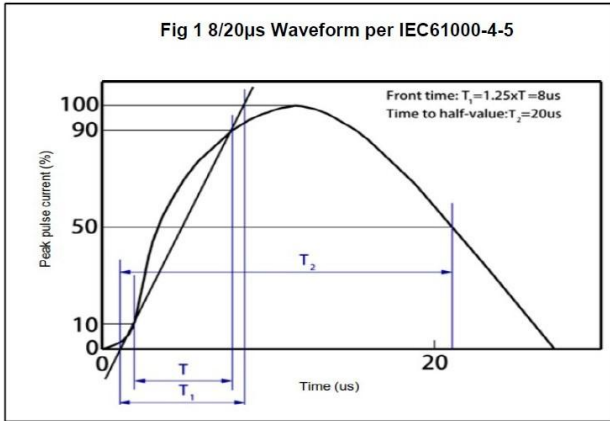
**Electrical Characteristics** Ratings at 25°C ambient temperature unless otherwise specified. VF = 0.9V at IF = 10mA

| P/N              | V <sub>RWM</sub> (V) | I <sub>R</sub> ( $\mu$ A) @ V <sub>RWM</sub> | V <sub>BR</sub> (V)@ I <sub>T</sub> (Note 1) | I <sub>T</sub> | V <sub>C</sub> (V) @ I <sub>PP</sub> =5 A* | V <sub>C</sub> (V) @ Max I <sub>PP</sub> * | I <sub>PP</sub> (A)* | P <sub>PK</sub> (W)* | C (pF) |
|------------------|----------------------|----------------------------------------------|----------------------------------------------|----------------|--------------------------------------------|--------------------------------------------|----------------------|----------------------|--------|
|                  | Max                  | Max                                          | Min                                          | mA             | Typ                                        | Max                                        | Max                  | Max                  | Typ    |
| LESD5D5.0CT1G-MS | 5.0                  | 1                                            | 5.6                                          | 1.0            | 11.6                                       | 18.6                                       | 8                    | 174                  | 25     |

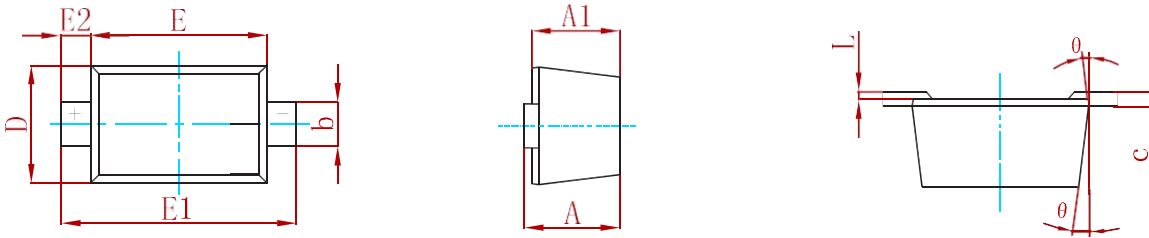
**Absolute Ratings (T<sub>amb</sub>=25°C )**

| Symbol           | Parameter                                         | Value                              | Units               |    |
|------------------|---------------------------------------------------|------------------------------------|---------------------|----|
| P <sub>PP</sub>  | Peak Pulse Power (t <sub>p</sub> = 8/20 $\mu$ s)  | 200                                | W                   |    |
| T <sub>L</sub>   | Maximum lead temperature for soldering during 10s | 260                                | °C                  |    |
| T <sub>stg</sub> | Storage Temperature Range                         | -55 to +155                        | °C                  |    |
| T <sub>op</sub>  | Operating Temperature Range                       | -40 to +125                        | °C                  |    |
| T <sub>j</sub>   | Maximum junction temperature                      | 150                                | °C                  |    |
|                  | IEC61000-4-2 (ESD)                                | air discharge<br>contact discharge | $\pm$ 15<br>$\pm$ 8 | KV |
|                  | IEC61000-4-4 (EFT)                                |                                    | 40                  | A  |
|                  | ESD Voltage                                       | Per Human Body Model               | 16                  | KV |

**ELECTRICAL CHARACTERISTICS CURVE**

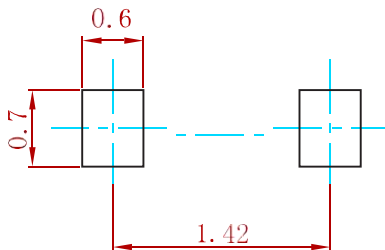


**PACKAGE MECHANICAL DATA**



| 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 |
| 0      | 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  |
|------------------|---------|------|
| LESD5D5.0CT1G-MS | SOD-523 | 3000 |

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