

APPLICATIONS

- ✧ Ethernet - 10/100/1000 Base T.
- ✧ Cellular Phones.
- ✧ I2C Bus Protection.
- ✧ Parallel & Serial Port Protection.
- ✧ Personal Digital Assistant (PDA).
- ✧ Microcontroller Input Protection.
- ✧ ISDN S/T Interface.
- ✧ WAN/LAN Equipment.

IEC COMPATIBILITY

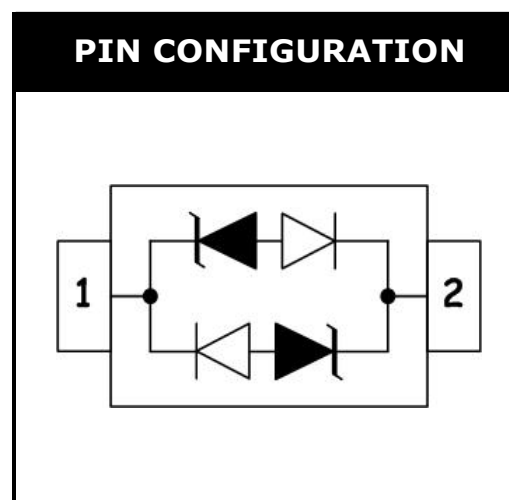
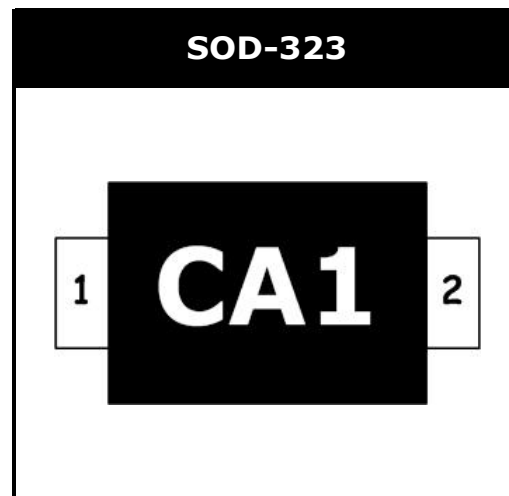
- ✧ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact).
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns).

FEATURES

- ✧ 200 Watts Peak Pulse Power per Line ($t_p=8/20\mu\text{s}$).
- ✧ Protects One Bidirectional I/O line.
- ✧ Low clamping voltage.
- ✧ Working voltages : 2.5 and 3.3V.
- ✧ Low leakage current.

MECHANICAL CHARACTERISTICS

- ✧ JEDEC SOD-323 Package.
- ✧ Molding Compound Flammability Rating : UL 94V-O.
- ✧ Weight 5.0 Milligrams (Approximate).
- ✧ Quantity Per Reel : 3,000pcs.
- ✧ Reel Size : 7 inch.
- ✧ Lead Finish : Lead Free.



DEVICE CHARACTERISTICS

| MAXIMUM RATINGS (@ 25°C Unless Otherwise Specified) | | | |
|---|------------------|---------------|-------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power (tp=8/20μs waveform) | P _{PP} | 200 | Watts |
| Lead Soldering Temperature | T _L | 260 (10 sec.) | °C |
| Operating Temperature Range | T _J | -55 ~ 150 | °C |
| Storage Temperature Range | T _{STG} | -55 ~ 150 | °C |

| ELECTRICAL CHARACTERISTICS PER LINE (@ 25°C Unless Otherwise Specified) | | | | | | | | | |
|---|----------------|-----------------------------------|---------------------------------|------------------------|---------------------------------|-------------------------------|----|----------------------------------|----------------------------------|
| PART NUMBER | DEVICE MARKING | V _{RWM} (V) (max.) | V _B (V) (min.) | I _T (mA) | V _C @1A (max.) | V _C (max.) (@A) | | I _R (μA) (max.) | C _T (pF) (typ.) |
| LC2511CCW | CA2 | 2.5 | 3.0 | 1 | 5.8 | 15.0 | 14 | 0.5 | 1 |
| LC3311CCW | CA1 | 3.3 | 3.5 | 1 | 6.0 | 15.0 | 10 | 0.5 | 1 |

- ◆ I_R : <0.5uA, T_C = 25'C
- ◆ I_R : <1.0uA, T_C = 125'C

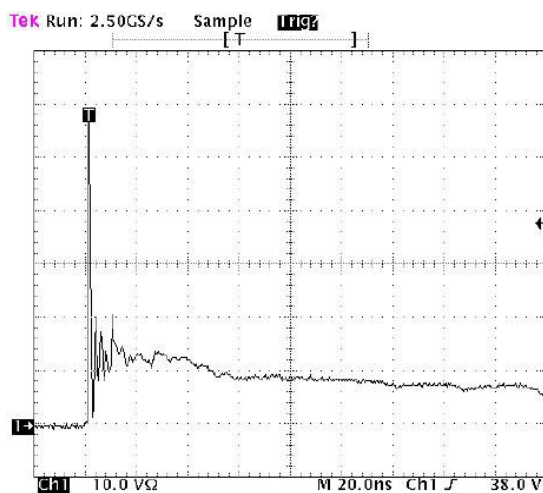


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

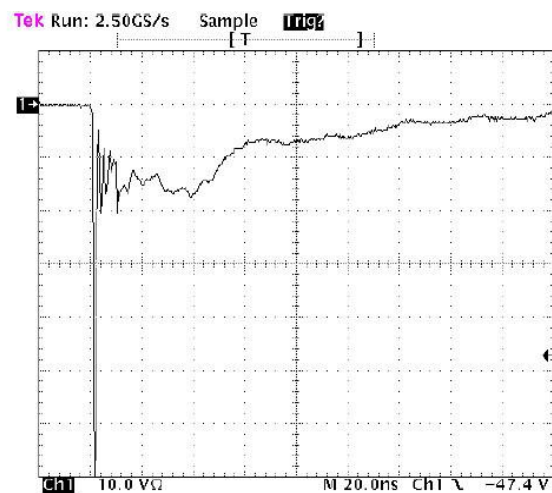
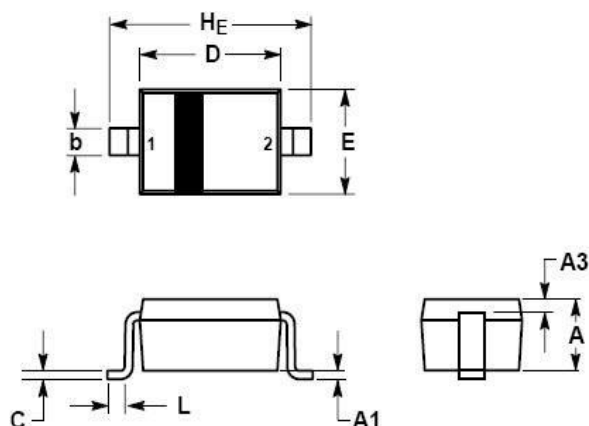


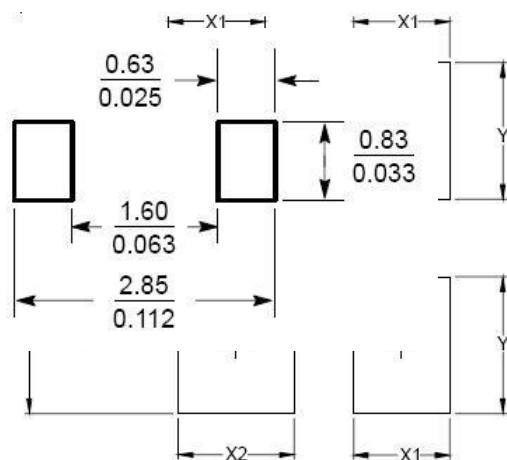
Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

SOD-323 PACKAGE OUTLINE & DIMENSIONS



| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|------|-------|-----------|-------|-------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.80 | 0.90 | 1.00 | 0.031 | 0.035 | 0.040 |
| A1 | 0.00 | 0.05 | 0.10 | 0.000 | 0.002 | 0.004 |
| A3 | 0.15 REF | | | 0.006 REF | | |
| b | 0.25 | 0.32 | 0.4 | 0.010 | 0.012 | 0.016 |
| C | 0.089 | 0.12 | 0.177 | 0.003 | 0.005 | 0.007 |
| D | 1.60 | 1.70 | 1.80 | 0.062 | 0.066 | 0.070 |
| E | 1.15 | 1.25 | 1.35 | 0.045 | 0.049 | 0.053 |
| L | 0.08 | | | 0.003 | | |
| HE | 2.30 | 2.50 | 2.70 | 0.090 | 0.098 | 0.105 |

*** SOLDERING FOOTPRINT**



| DIMENSIONS | | |
|------------|--------|-------------|
| DIM | INCHES | MILLIMETERS |
| C | (.087) | (2.20) |
| E1 | .076 | 1.92 |
| E2 | .068 | 1.72 |
| G | .031 | 0.80 |
| X1 | .039 | 1.00 |
| X2 | .047 | 1.20 |
| Y | .055 | 1.40 |
| Z | .141 | 3.60 |

Website: <http://www.jksemi.com>

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