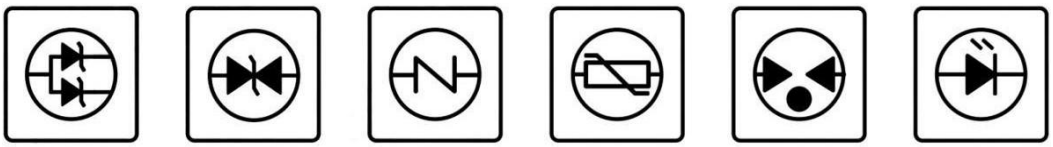
MSKSEMI 美森科
SEMICONDUCTOR




# CESD3V3AP-MS

## Product specification

## FEATURES

- IEC61000-4-2 (ESD) ±30kV (Contact)
- ±30kV (Air)
- IEC61000-4-4 (EFT) 40A (5/50ηs)
- 350 Watts Peak Pulse Power per (tp=8/20μs)
  Protects one bidirectional line or two
- unidirectional lines
- Low clamping voltage
- Working voltages: 3.3V
- Low leakage current

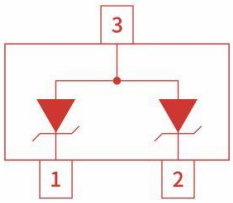
## MACHANICAL DATA

- SOT-23 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed:
- 260C/10s
- Reel size: 7 inch
- MSL 1

## 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

## Reference News

| PACKAGE OUTLINE | PIN CONFIGURATION | Marking |
|---|---|---|
|  |  | M03 |
| SOT-23 | | |

## ABSOLUTE MAXIMUM RATING

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| VESD | ESD per IEC 61000-4-2 (Contact)<br>ESD per IEC 61000-4-2 (Air) | ±30<br>±30 | kV |
| PPP | Peak Pulse Power (8/20μs) | 350 | W |
| TOPT | Operating Temperature | -55~125 | °C |
| TSTG | Storage Temperature | -55~150 | °C |
| TL | Lead Soldering Temperature | 260(10 sec) | °C |

## ELECTRICAL CHARACTERISTICS (Tamb=25℃)

| PART NUMBER | V RWM (V) (max.) | V B (V) (min.) | IT (mA) | VC @1 A (V) (max.) | VC (V) (max.) | (@A) | IR (μA) (max.) | CT (pF) (max.) |
|---|---|---|---|---|---|---|---|---|
| CESD3V3AP-MS | 3.3 | 4 | 1 | 7.0 | 14 | 20 | 40 | 450 |

## ELECTRICAL CHARACTERISTICS CURVE

Fig 1 8/20μs Waveform per IEC61000-4-5

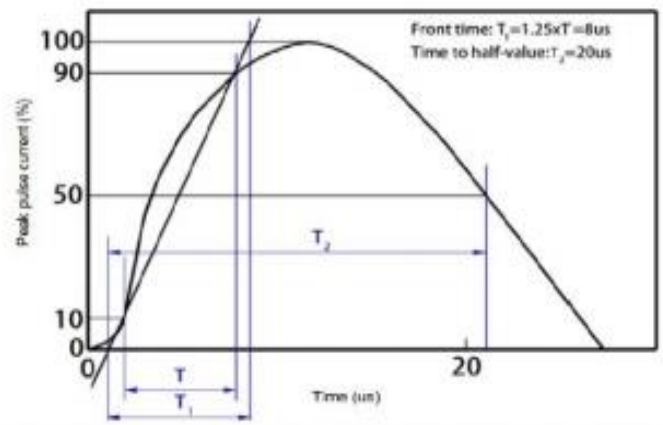



Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

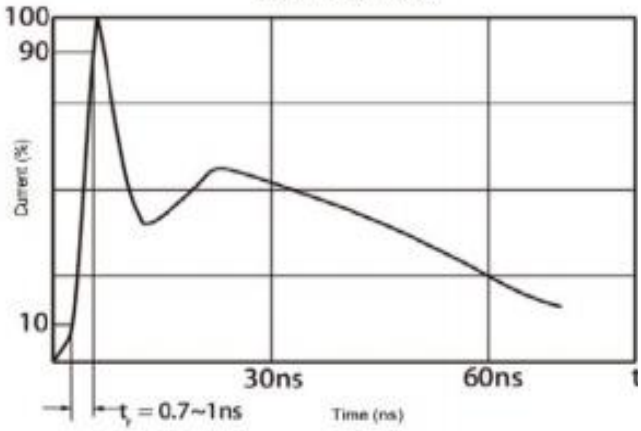



Fig 3 Voltage vs Capacitance

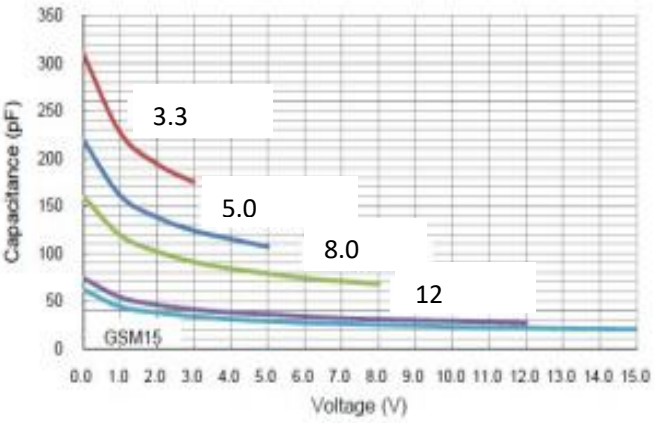



Fig 4 Voltage vs Capacitance

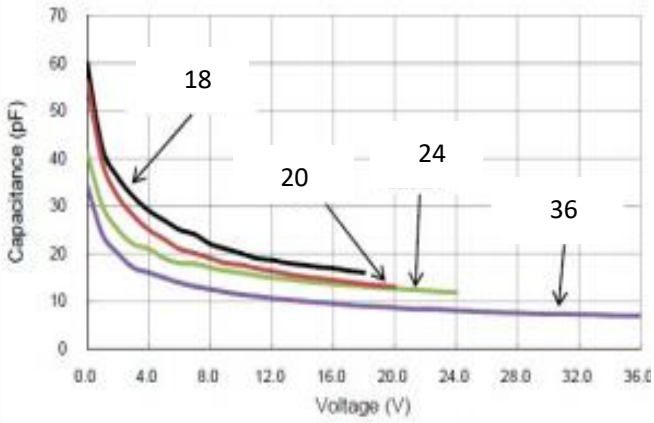



Fig 5 Clamping Voltage vs Peak Pulse Current

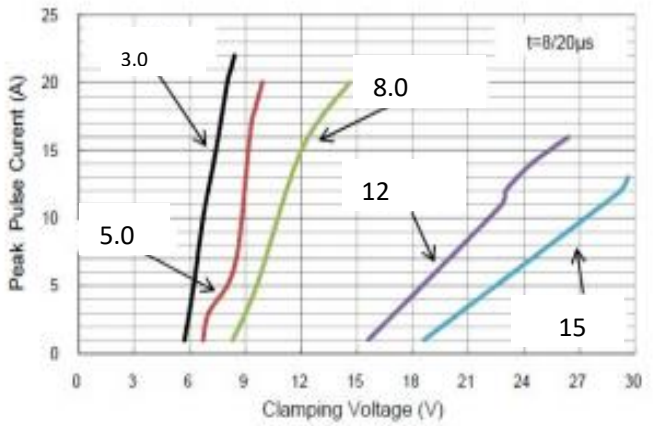
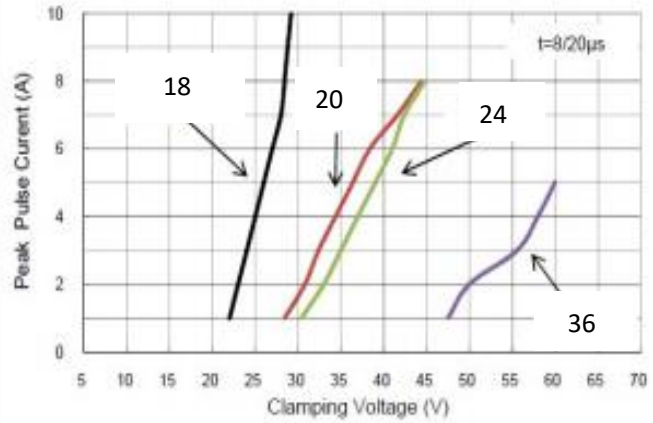
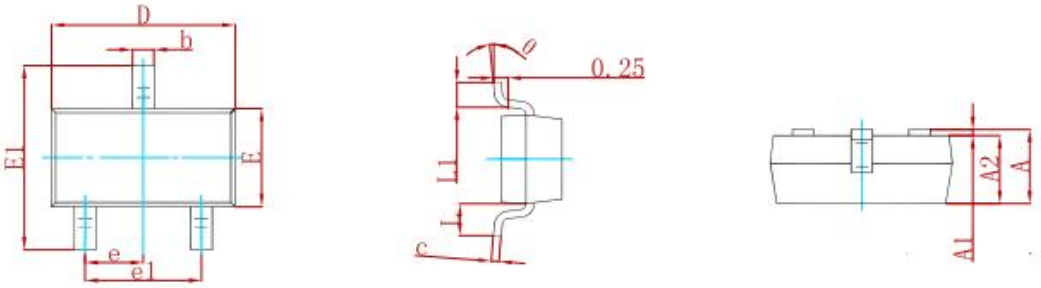



Fig 6 Clamping Voltage vs Peak Pulse Current

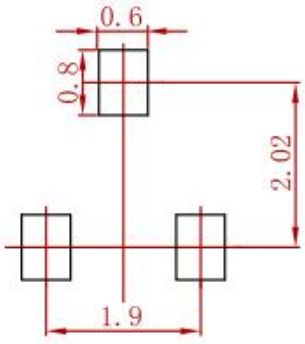


## PACKAGE MECHANICAL DATA




| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 0.900 | 1.150 | 0.035 | 0.045 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 0.900 | 1.050 | 0.035 | 0.041 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 2.800 | 3.000 | 0.110 | 0.118 |
| E | 1.200 | 1.400 | 0.047 | 0.055 |
| E1 | 2.250 | 2.550 | 0.089 | 0.100 |
| e | 0.950 TYP | | 0.037 TYP | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.550 REF | | 0.022 REF | |
| L1 | 0.300 | 0.500 | 0.012 | 0.020 |
| θ | 0° | 8° | 0° | 8° |

## Suggested Pad Layout




Note:
1.Controlling dimension:In millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

## REEL SPECIFICATION

| P/N | PKG | QTY |
|---|---|---|
| CESD3V3AP-MS | SOT-23 | 3000 |

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