

# **ESD TVS Array in SOT-23**

#### **Features**

- 380Watts peak pulse power (tp = 8/20µs)
- Tiny SOT-23 package
- Unidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- ESD-immunity acc. IEC 61000-4-2 ±30KV contact ±30KV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 24A (8/20µs)





#### **Mechanical Data**

- Case: SOT-23 (plastic package). Lead free; RoHS compliant
- Molding Compound Flammability Rating: UL 94 V-0
- **Terminals:** High temperature soldering guaranteed: 260 °C/10 sec. at terminals

### **Applications**

- Cellular Handsets and Accessories
- RS-232, RS-422 & RS-485
- Control & Monitoring Systems
- Set-Top Box
- Portable Electronics
- Other electronics equipments Communication systems

#### **Absolute Maximum Ratings**

Ratings at 25 °C, ambient temperature unless otherwise specified

| Parameter                                  | Symbol           | Value         | Unit |
|--|------------------|---------------|------|
| ESD Air Discharge per<br>IEC 61000-4-2     | V <sub>ESD</sub> | ± 30          | KV   |
| ESD Contact Discharge<br>per IEC 61000-4-2 | V <sub>ESD</sub> | ± 30          | KV   |
| Peak pulse power 8/20 µs waveform          | P <sub>PPM</sub> | 380           | W    |
| Peak pulse current 8/20 µs waveform        | I <sub>PPM</sub> | 24            | A    |
| Operating Temperature                      | T <sub>J</sub>   | - 55 to + 125 | °C   |
| Storage Temperature                        | T <sub>STG</sub> | - 55 to + 150 | °C   |

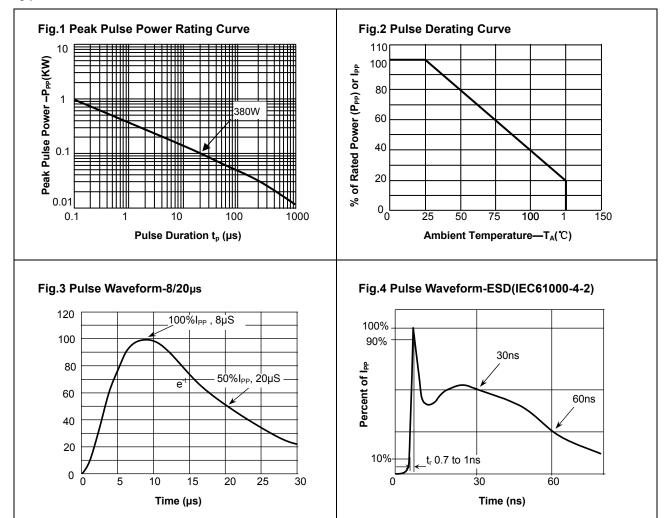
#### **Electrical Characteristics**

(T<sub>A</sub> = 25 °C unless otherwise specified)

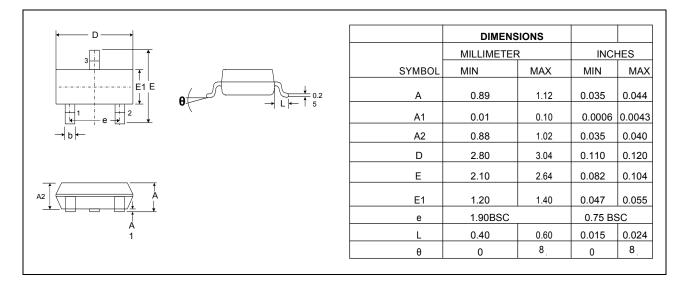
| Parameter                 | Test Conditions                              | Synbol         | Min. | Тур. | Max. | Unit |
|---------------------------|--|----------------|------|------|------|------|
| Reverse Stand-Off Voltage |  | $V_{RWM}$      |      |      | 3.3  | V    |
| Reverse current           | at V <sub>R</sub> =3.3V                      | IR             |      | 0.1  | 0.5  | μΑ   |
| Clamping voltage          | at I <sub>PP</sub> = 10A, Acc. IEC 61000-4-5 | V <sub>C</sub> |      |      | 12   | V    |
| Clamping voltage          | at I <sub>PP</sub> = 20A, Acc. IEC 61000-4-5 | V <sub>C</sub> |      |      | 16   | V    |
| Reverse Breakdown Voltage | at I <sub>R</sub> = 1 mA                     | $V_{BR}$       | 4    |      |      | V    |
| Capacitance               | at V <sub>R</sub> = 0 V ; f = 1 MHz          | C <sub>D</sub> |      | 100  |      | pF   |



# $\textbf{Typical Characteristics} \ \, (\mathsf{T}_{\mathsf{amb}} \, \mathsf{=} \, \mathsf{25} \, \, \mathsf{^{\circ}C} \, \, \mathsf{unless \, otherwise \, specified})$

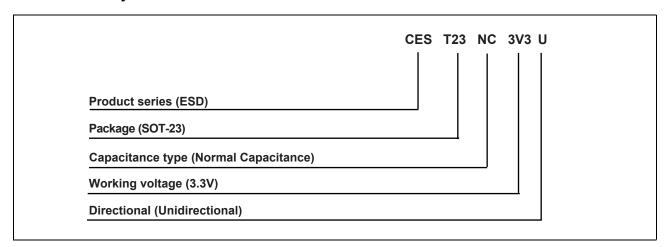


#### **Package Dimensions**





## Part number system



## Marking



## **Ordering inormation**

| Order code   | Package | Packaging option | Base quantity  | Packaging specification |
|--------------|---------|------------------|----------------|-------------------------|
| CEST23NC3V3U | SOT-23  | Tape and reel    | 3000pcs / reel | EIA STD RS-481          |

#### **Revision history**

| Date        | Revision | Changes         |
|-------------|----------|-----------------|
| 23-May-2012 | 1.0      | Initial release |





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