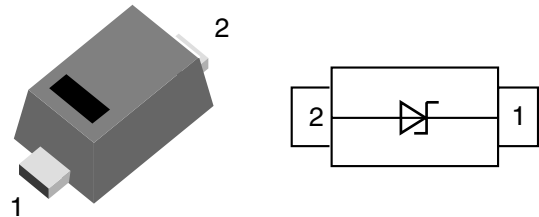


## ESD Protection Diode in SOD-923

### Features

- 92 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Tiny SOD923 package
- Unidirectional configurations
- Protects one I/O port
- Low clamping voltage
- Low Leakage current
- ESD-immunity acc. IEC 61000-4-2  $\pm 30kV$  contact  $\pm 30kV$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 8A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** SOD-923 (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

- Computers and peripherals
- Communication systems
- Notebook
- Cellular handsets and accessories
- Portable electronics
- Audio and video equipment

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

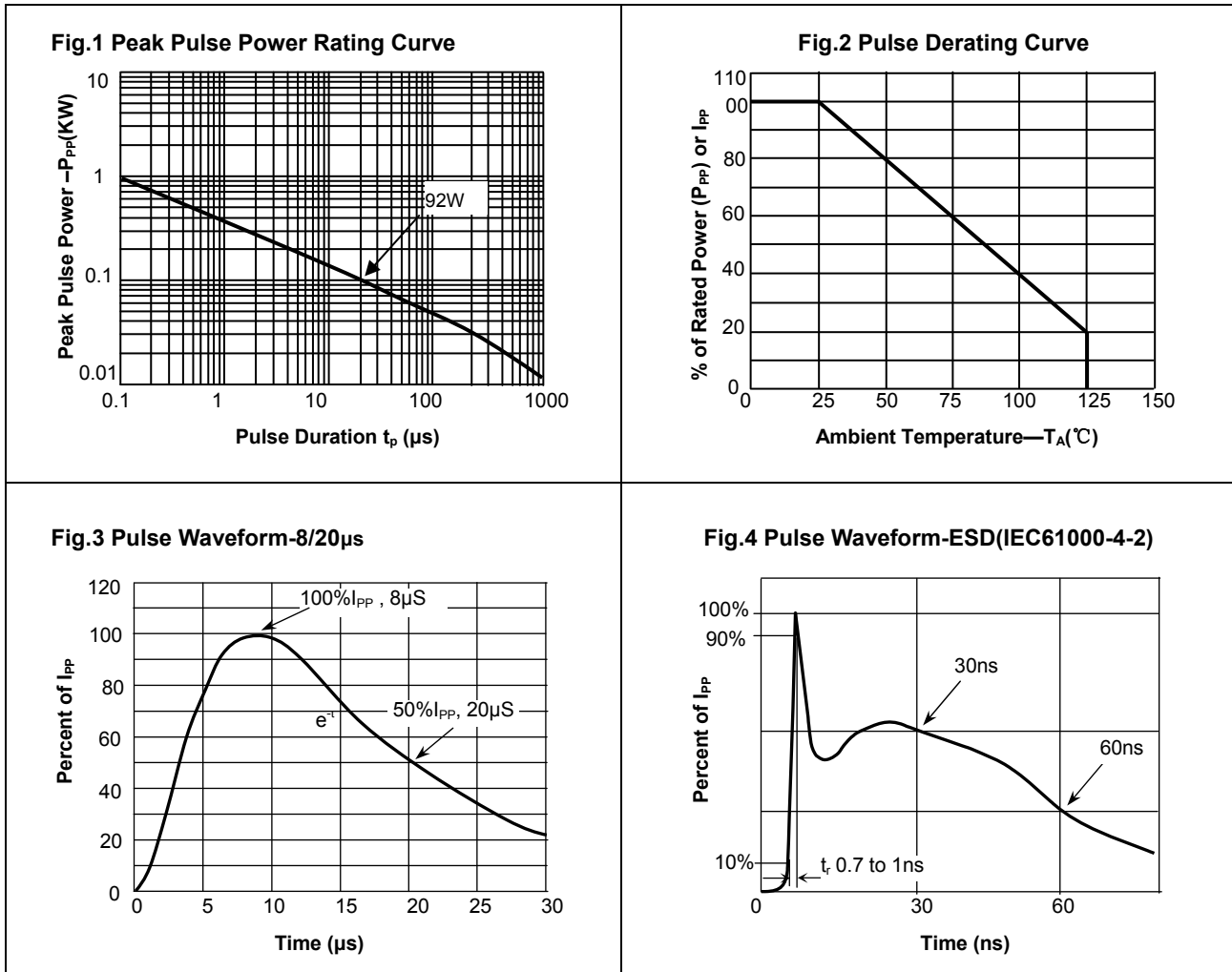
| Parameter                                | Symbol    | Value         | Unit |
|--|-----------|---------------|------|
| ESD Air Discharge per IEC 61000-4-2      | $V_{ESD}$ | $\pm 30$      | kV   |
| ESD Contact Discharge per IEC 61000-4-2  | $V_{ESD}$ | $\pm 30$      | kV   |
| Peak pulse power 8/20 $\mu s$ waveform   | $P_{PPM}$ | 92            | W    |
| Peak pulse current 8/20 $\mu s$ waveform | $I_{PPM}$ | 7.5           | A    |
| Operating Temperature                    | $T_J$     | - 55 to + 125 | °C   |
| Storage Temperature                      | $T_{STG}$ | - 55 to + 150 | °C   |

### Electrical Characteristics

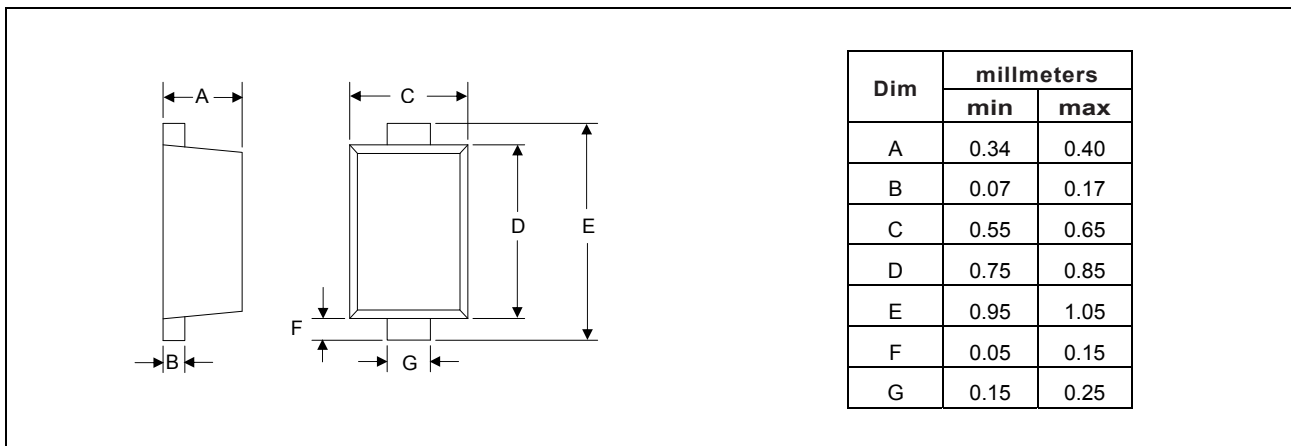
( $T_A = 25\text{ °C}$  unless otherwise specified)

| Parameter                      | Test Conditions                                 | Synbol    | Min. | Typ. | Max. | Unit    |
|--------------------------------|---|-----------|------|------|------|---------|
| Reverse Stand-Off Voltage      |   | $V_{RWM}$ |      |      | 5    | V       |
| Max. Reverse current           | at $V_R = 5\text{ V}$                           | $I_R$     |      |      | 1    | $\mu A$ |
| Max. Clamping voltage          | at $I_{PP} = 7.5\text{ A}$ , Acc. IEC 61000-4-5 | $V_C$     |      |      | 12.3 | V       |
| Min. Reverse Breakdown Voltage | at $I_R = 1\text{ mA}$                          | $V_{BR}$  | 6.0  | 6.8  |      | V       |
| Capacitance                    | at $V_R = 0\text{ V}$ ; $f = 1\text{ MHz}$      | $C_D$     |      | 40   |      | pF      |

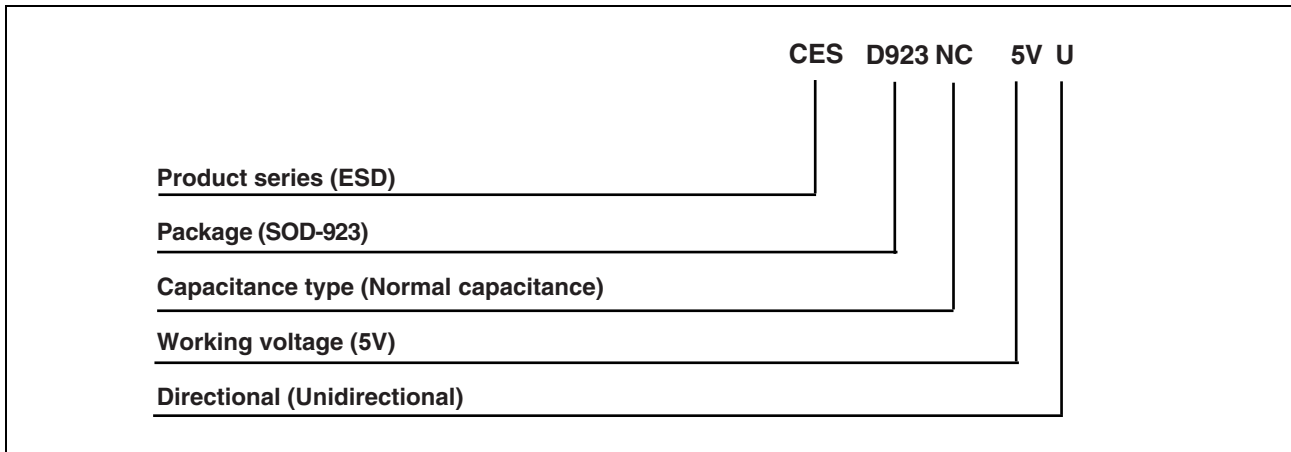
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



**Package Dimensions**



## Part number system



## Ordering information

| Order code   | Package | Packaging option | Base quantity  | Packaging specification |
|--------------|---------|------------------|----------------|-------------------------|
| CESD923NC5VU | SOD-923 | Tape and reel    | 8000pcs / reel | EIA STD RS-481          |

## Revision history

| Date        | Revision | Changes         |
|-------------|----------|-----------------|
| 23-May-2016 | 1.0      | Initial release |

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