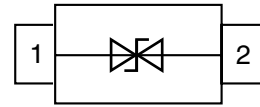
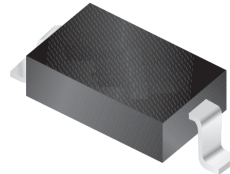


## ESD Protection Diode in SOD-323

### Features

- 240Watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOD-323 package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Medium capacitance ( $C_j = 30pF$  typ.)
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 15kV$  contact  $\pm 8kV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 8A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** SOD-323 (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

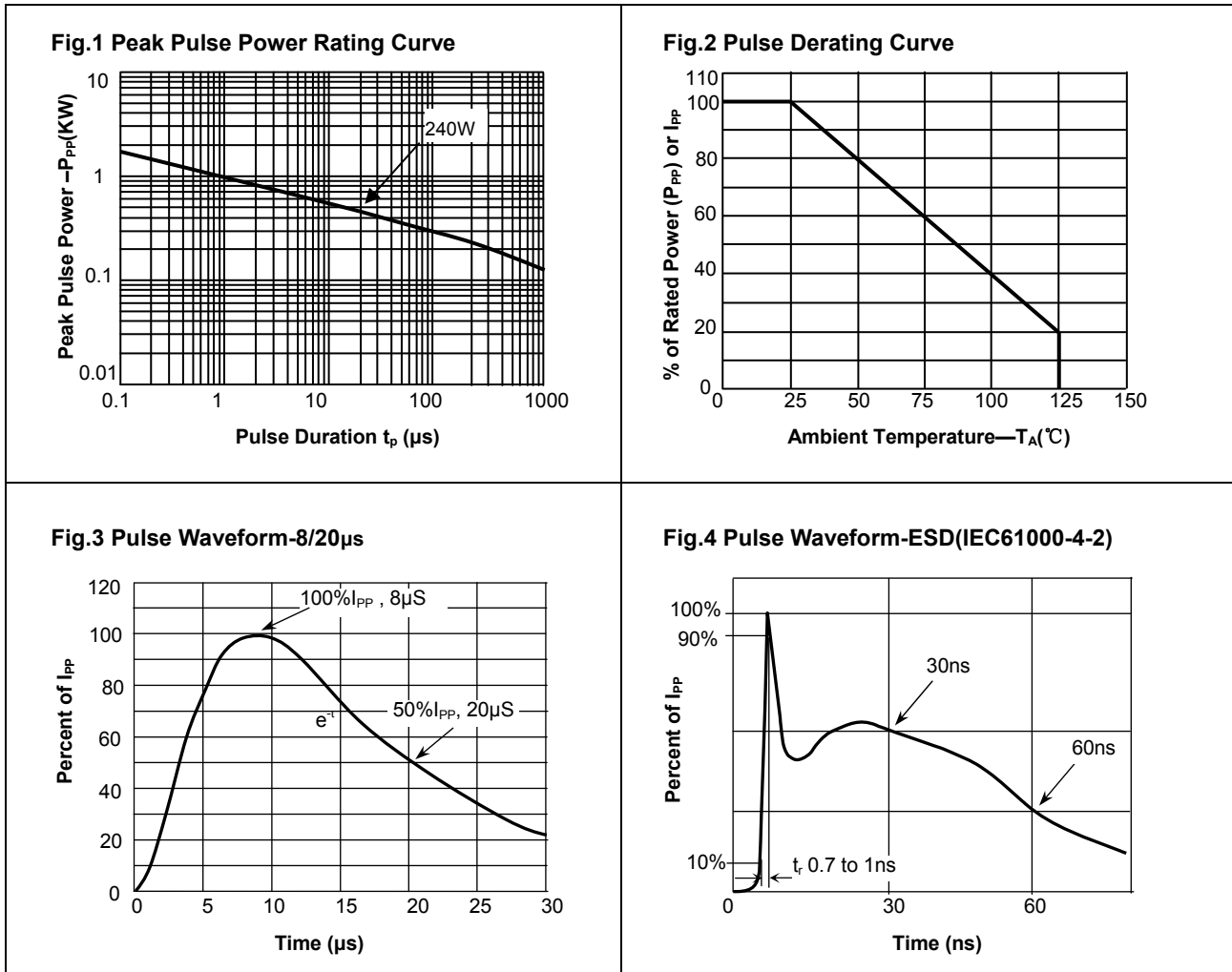
| Parameter                                 | Symbol    | Value       | Unit |
|---|-----------|-------------|------|
| Peak Pulse Power ( $T_P = 8/20\mu s$ )    | $P_{PP}$  | 240         | W    |
| ESD contact/air discharge (IEC-61000-4-2) | $V_{ESD}$ | 15/8        | kV   |
| Peak Pulse Current ( $t_P = 8/20\mu s$ )  | $I_{PP}$  | 8           | A    |
| Junction Temperature                      | $T_J$     | -55 to +150 | °C   |
| Storage temperature                       | $T_{STG}$ | -55 to +150 | °C   |

### Electrical Characteristics

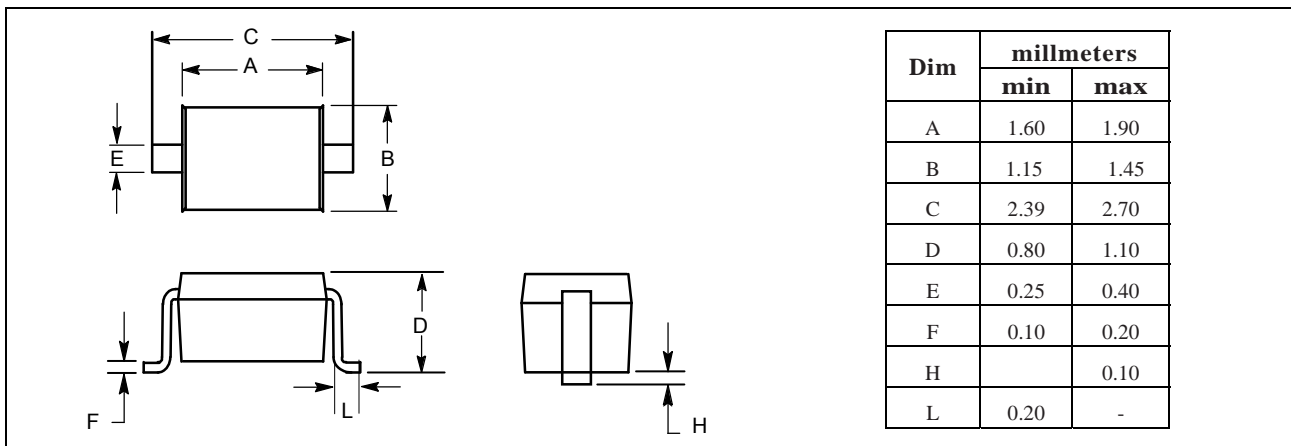
( $T_A = 25$  °C unless otherwise specified)

| Parameter                        | Symbol    | Condition            | Min  | Typ | Max | Unit    |
|----------------------------------|-----------|----------------------|------|-----|-----|---------|
| Reverse stand-off Voltage        | $V_{RWM}$ |                      |      |     | 12  | V       |
| Reverse Breakdown Voltage        | $V_{BR}$  | $I_T = 1mA$          | 13.3 |     |     | V       |
| Reverse Leakage Current          | $I_R$     | $V_R = 12V$          |      |     | 1   | $\mu A$ |
| Clamping Voltage (IEC 61000-4-5) | $V_C$     | $I_{PP} = 8A$        |      |     | 30  | V       |
| Junction Capacitance             | $C_J$     | $V_R = 0V, f = 1MHz$ |      | 30  |     | pF      |

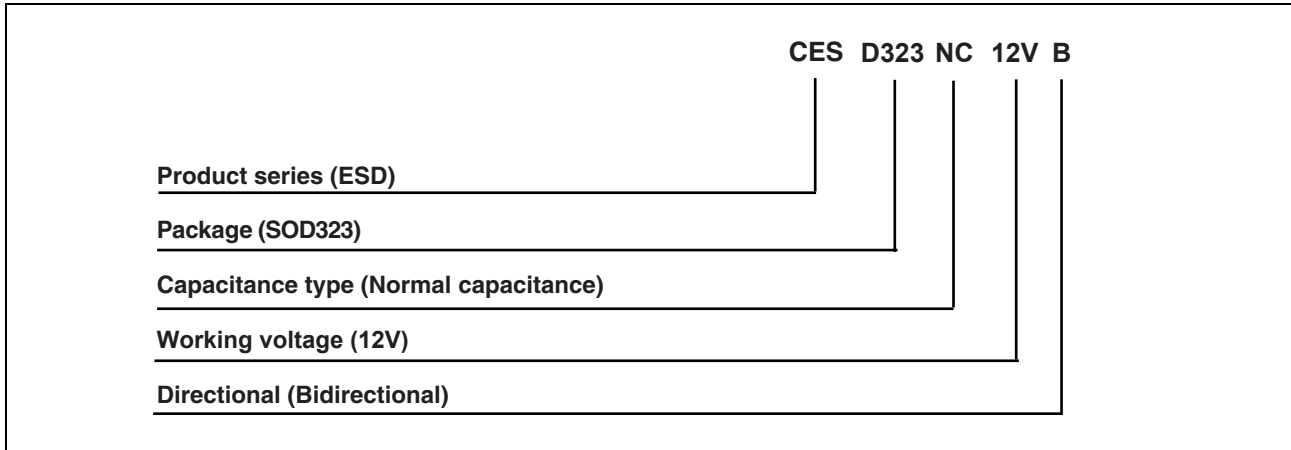
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



**Package Dimensions**



## Part number system



## Marking



## Ordering information

| Order code    | Package | Packaging option | Base quantity  | Packaging specification |
|---------------|---------|------------------|----------------|-------------------------|
| CESD323NC12VB | SOD-323 | 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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