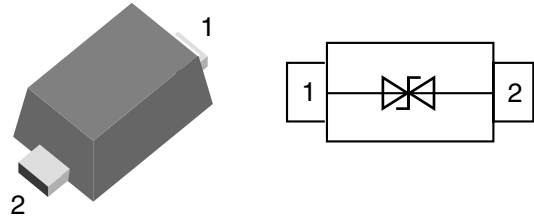


ESD Protection Diode in SOD-923

Features

- 100 Watts peak pulse power ($t_p = 8/20\mu s$)
- Tiny SOD923 package
- Bidirectional 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 μs)



Mechanical Data

- **Case:** SOD923 (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

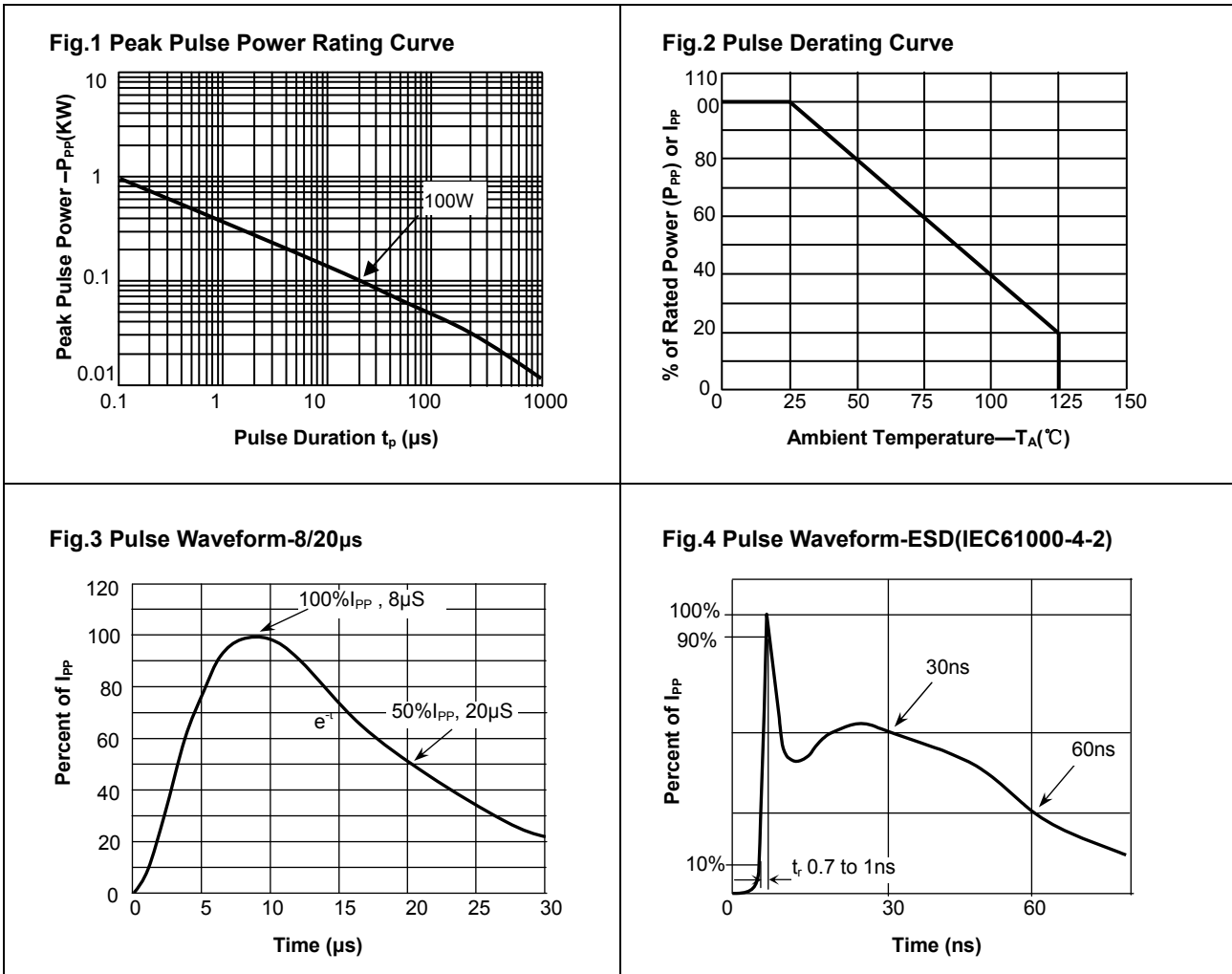
Parameter	Symbol	Value	Unit
ESD Air Discharge per IEC 61000-4-2	V_{ESD}	± 30	kV
ESD Contact Discharge per IEC 61000-4-2	V_{ESD}	± 30	kV
Peak pulse power 8/20 μs waveform	P_{PPM}	100	W
Peak pulse current 8/20 μs waveform	I_{PPM}	8	A
Operating Temperature	T_J	- 55 to + 125	°C
Storage Temperature	T_{STG}	- 55 to + 150	°C

Electrical Characteristics

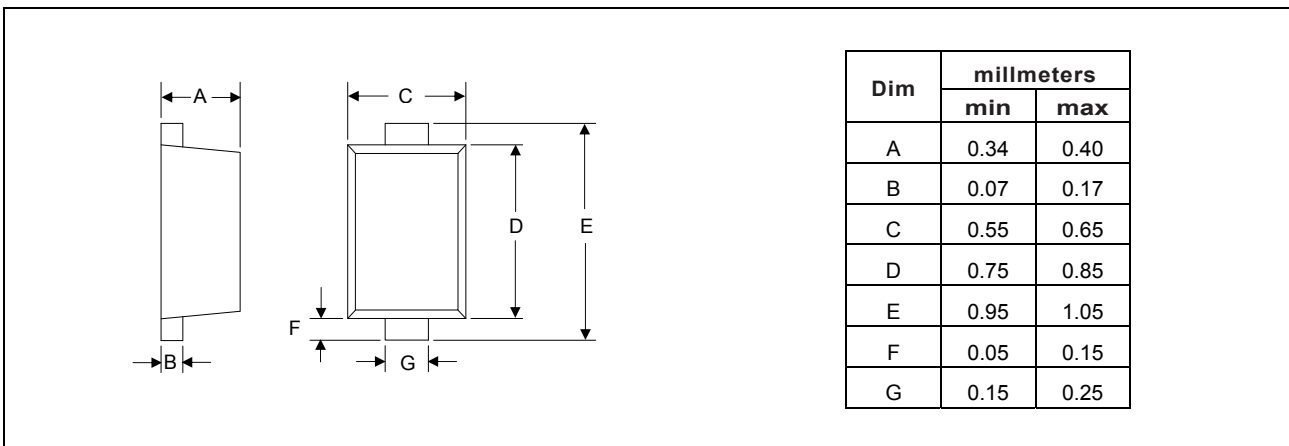
($T_A = 25$ °C unless otherwise specified)

Parameter	Test Conditions	Synbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage		V_{RWM}			5	V
Max. Reverse current	at $V_R = 5$ V	I_R		< 0.1	1	μA
Max. Clamping voltage	at $I_{PP} = 8$ A, Acc. IEC 61000-4-5	V_C			13	V
Min. Reverse Breakdown Voltage	at $I_R = 1$ mA	V_{BR}	6.0	6.8	8.0	V
Capacitance	at $V_R = 0$ V ; $f = 1$ MHz	C_D		15		pF

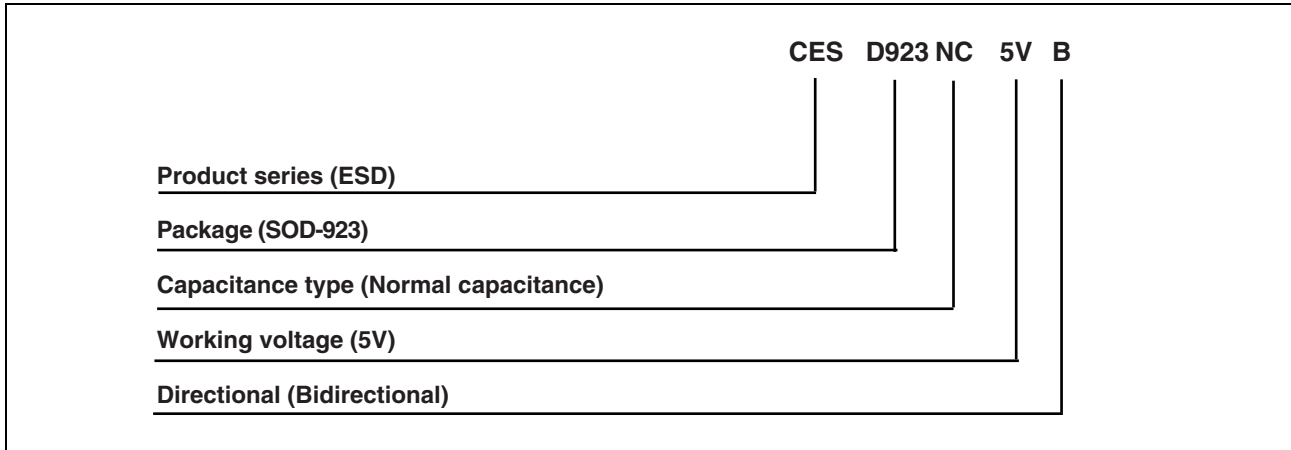
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



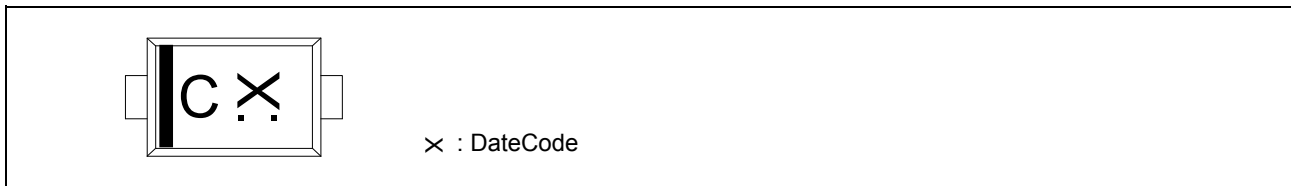
Package Dimensions



Part number system



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
CESD923NC5VB	SOD-923	Tape and reel	8000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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