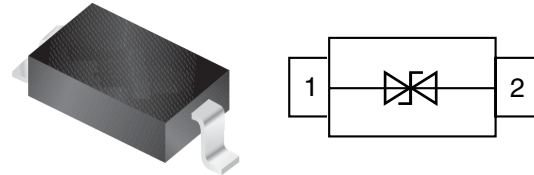


ESD Protection Diode in SOD-323

Features

- 420Watts peak pulse power ($T_p = 8/20\mu s$)
- SOD-323 package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Medium capacitance ($C_j = 20pF$ typ.)
- Protection one data/power line to:
 - ISO 10605 $\pm 15kV$ contact $\pm 25kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 10A (8/20 μs)
- AEC-Q101 Qualified



Mechanical Data

- **Case:** SOD-323 (plastic package).
Lead free; RoHS compliant; Halogen free
- **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}	420	W
ESD contact/air discharge (ISO 10605)	V_{ESD}	15/25	kV
Peak Pulse Current ($T_p = 8/20\mu s$)	I_{PP}	7	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}				28	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	31	33	35	V
Reverse Leakage Current	I_R	$V_R = 28V$			1.0	μA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$		35	45	V
		$I_{PP} = 7A, t_p = 8/20\mu s$		45	60	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		20		pF

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

Fig.1 Junction Capacitance

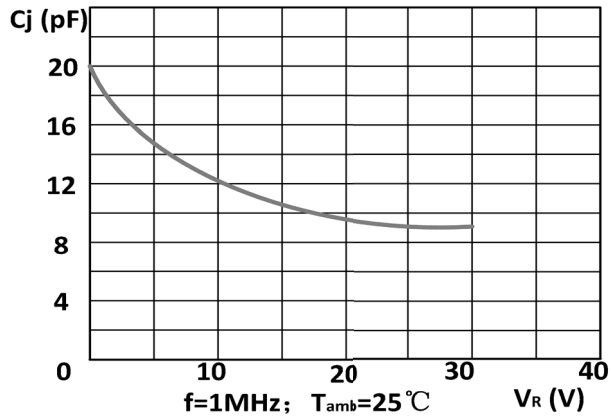


Fig.2 Pulse Derating Curve

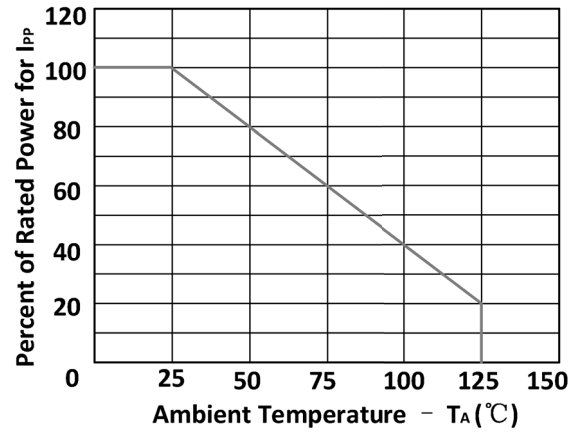


Fig.3 Pulse Waveform-8/20 μs

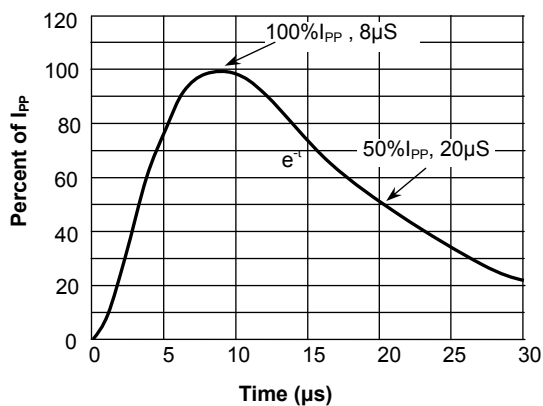
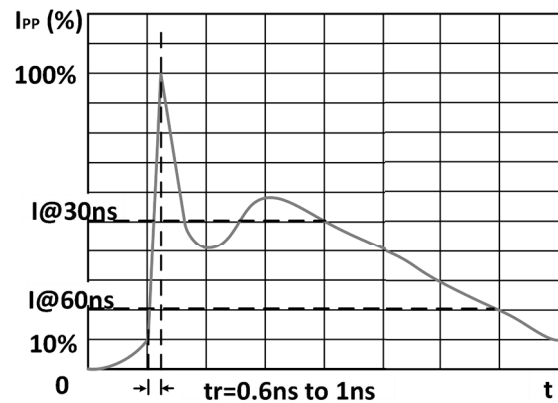
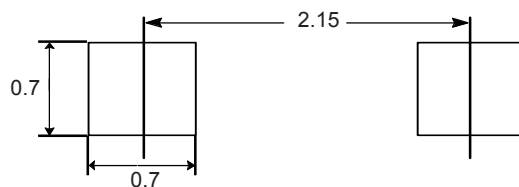


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

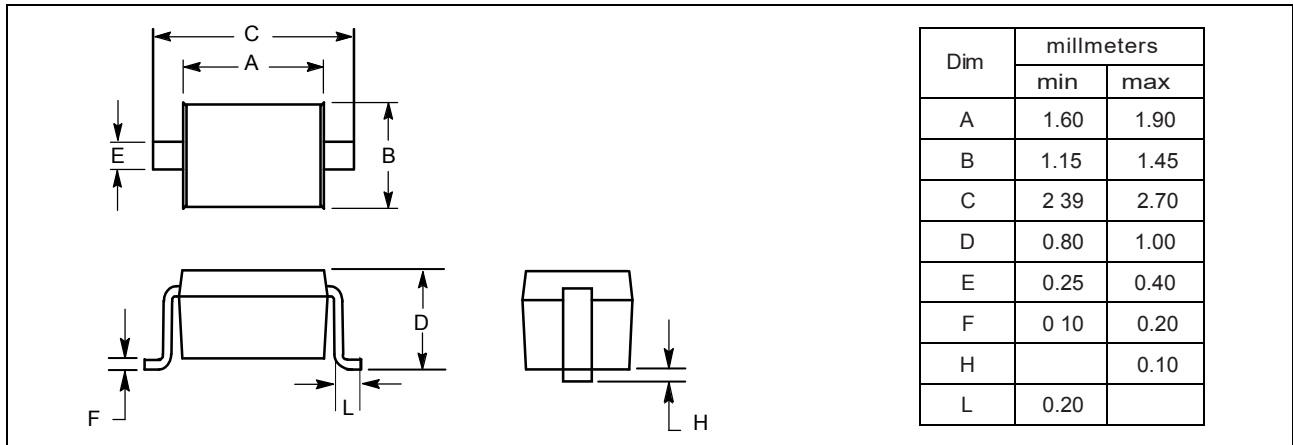


PAD Dimension

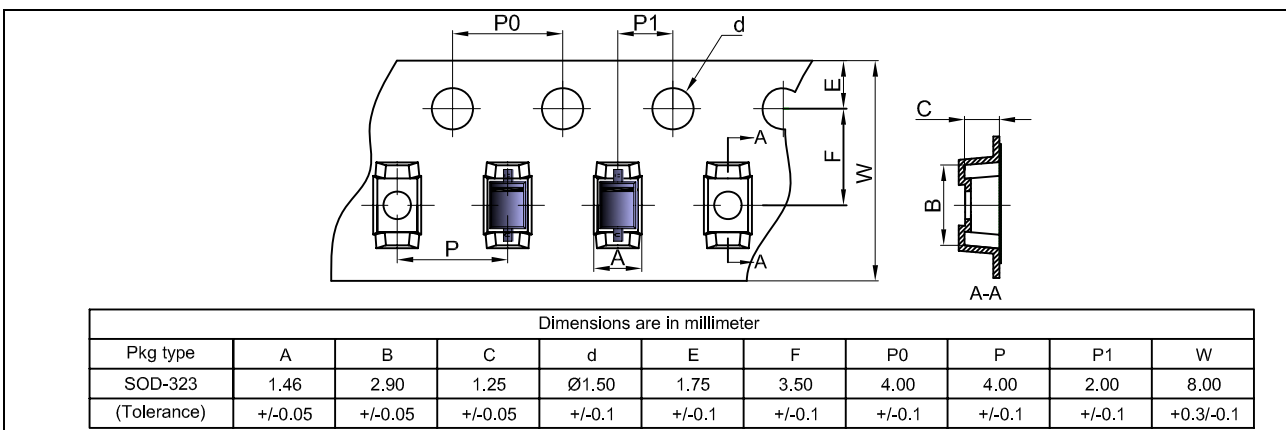


All Dimensions in mm

Package Dimensions



Package Information



Marking



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
J06A323NC28VB	SOD-323	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
5-Jul.-2023	3.0	Update

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