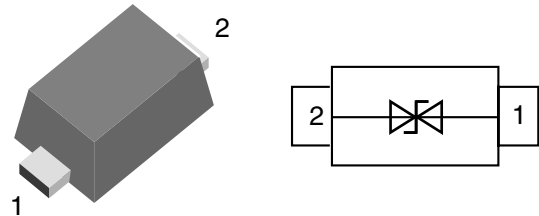


## ESD Protection Diode in SOD-523

### Features

- 100Watts peak pulse power ( $T_P = 8/20\mu s$ )
- SOD-523 package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Medium capacitance ( $C_j = 15pF$  typ.)
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 30kV$  contact  $\pm 30kV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 10A (8/20 $\mu s$ )



### Mechanical Data

- **Case:** SOD-523 (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

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

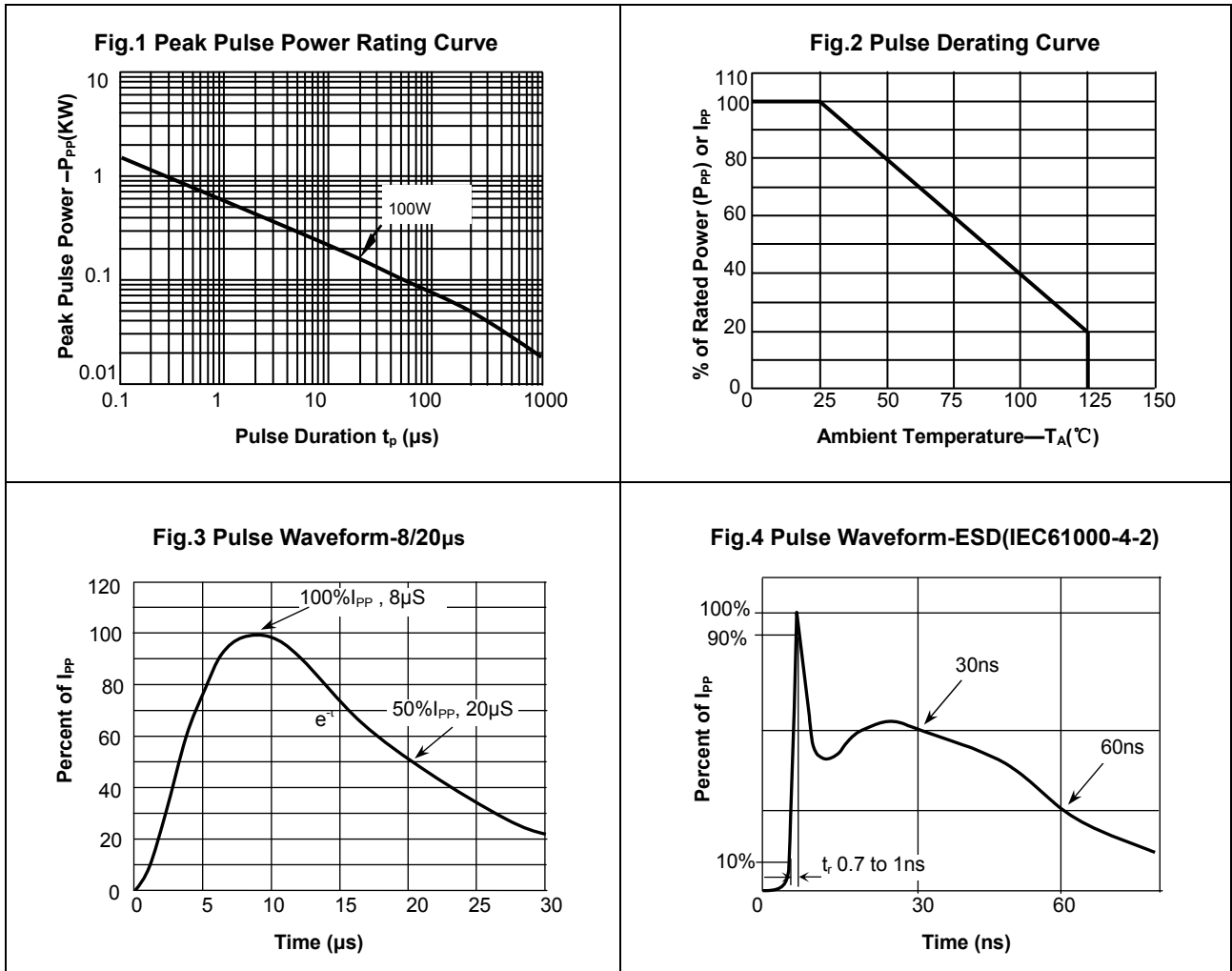
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_P = 8/20\mu s$ )	$P_{PP}$	100	W
ESD contact/air discharge (IEC-61000-4-2)	$V_{ESD}$	30/30	kV
Peak Pulse Current ( $T_P = 8/20\mu s$ )	$I_{PP}$	10	A
Junction Temperature	$T_J$	-55 to +125	°C
Storage temperature	$T_{STG}$	-55 to +125	°C

### Electrical Characteristics

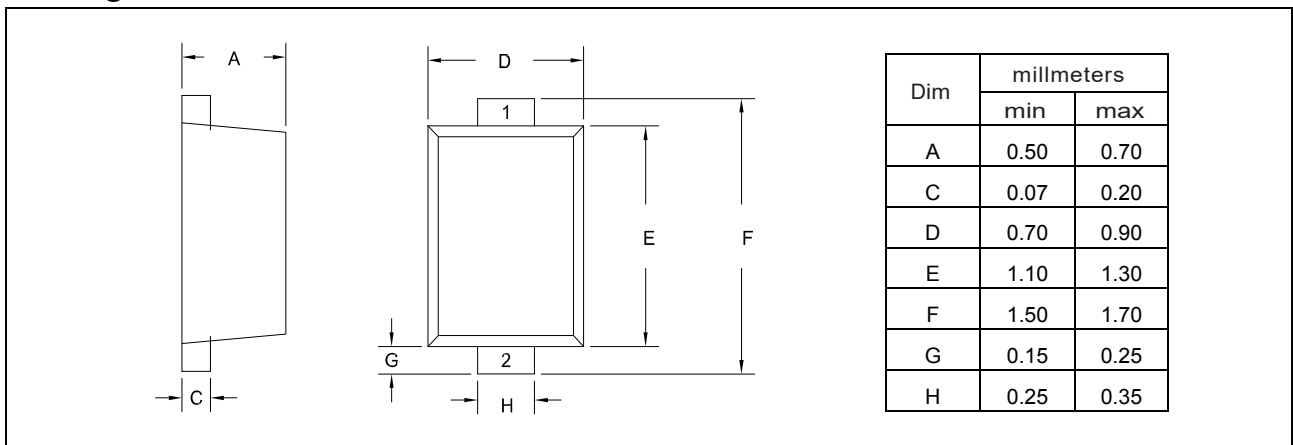
( $T_A = 25$  °C unless otherwise specified)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	$V_{RWM}$				3.3	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	4.1			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 3.3V, T = 25^\circ C$		0.1	0.2	$\mu A$
Clamping Voltage	$V_{CL}$	$I_{PP} = 16A, T_P = 100ns$		8		V
Clamping Voltage	$V_C$	$I_{PP} = 5A, T_P = 8/20\mu s$			6	V
Clamping Voltage		$I_{PP} = 10A, T_P = 8/20\mu s$		8		V
Dynamic resistance	$R_{DYN}$			0.2		$\Omega$
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		15		pF

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



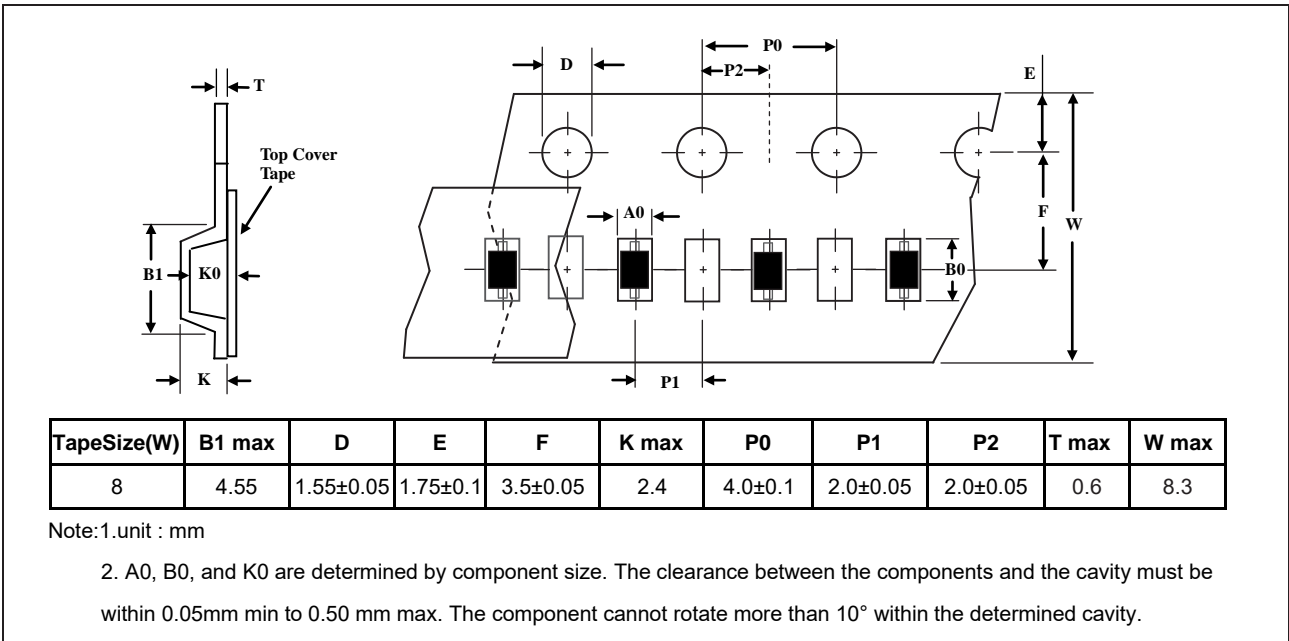
## Package Dimensions



## Pad Dimensions



## Package Dimensions



## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
TESD523NC3V3B	SOD-523	Tape and reel	3000pcs / reel	EIA STD RS-481