

## ESD5V0D3

### Description

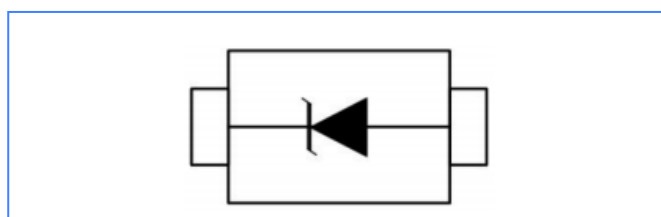
ESD5V0D3 is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for use in cellular phones, MP3 players, digital cameras and many other portable applications where board space is at a premium

### Features

- Ultra low leakage: nA level
- Operating voltage: 5V
- Package: SOD-323
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 15\text{kV}$
    - Contact discharge:  $\pm 8\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning) 12A (8/20 $\mu\text{s}$ )



### Functional Diagram



### Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- Pagers

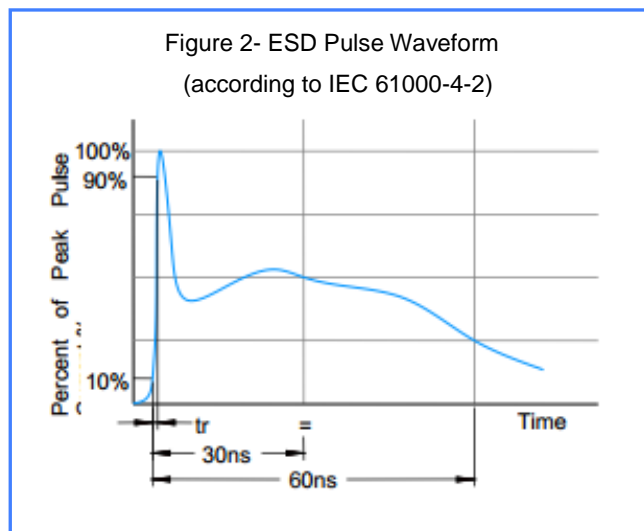
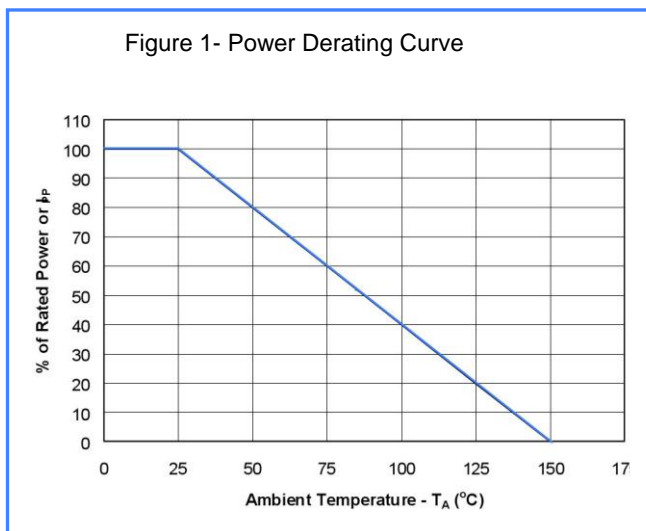
### Absolute Maximum Ratings(Tamb=25 °C unless otherwise specified)

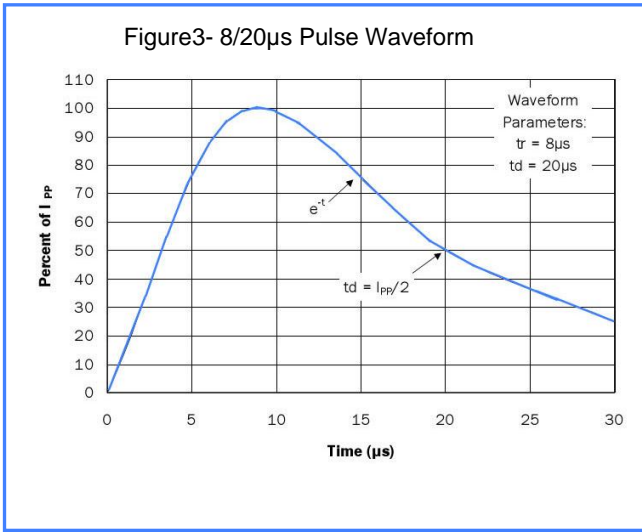
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	P <sub>PP</sub>	350	Watts
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 15$	KV
ESD per IEC 61000-4-2 (Contact)		$\pm 8$	KV
Lead Soldering Temperature	TL	260 (10 sec)	°C
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

**Electrical Characteristics (TA = 25 °C unless otherwise noted)**

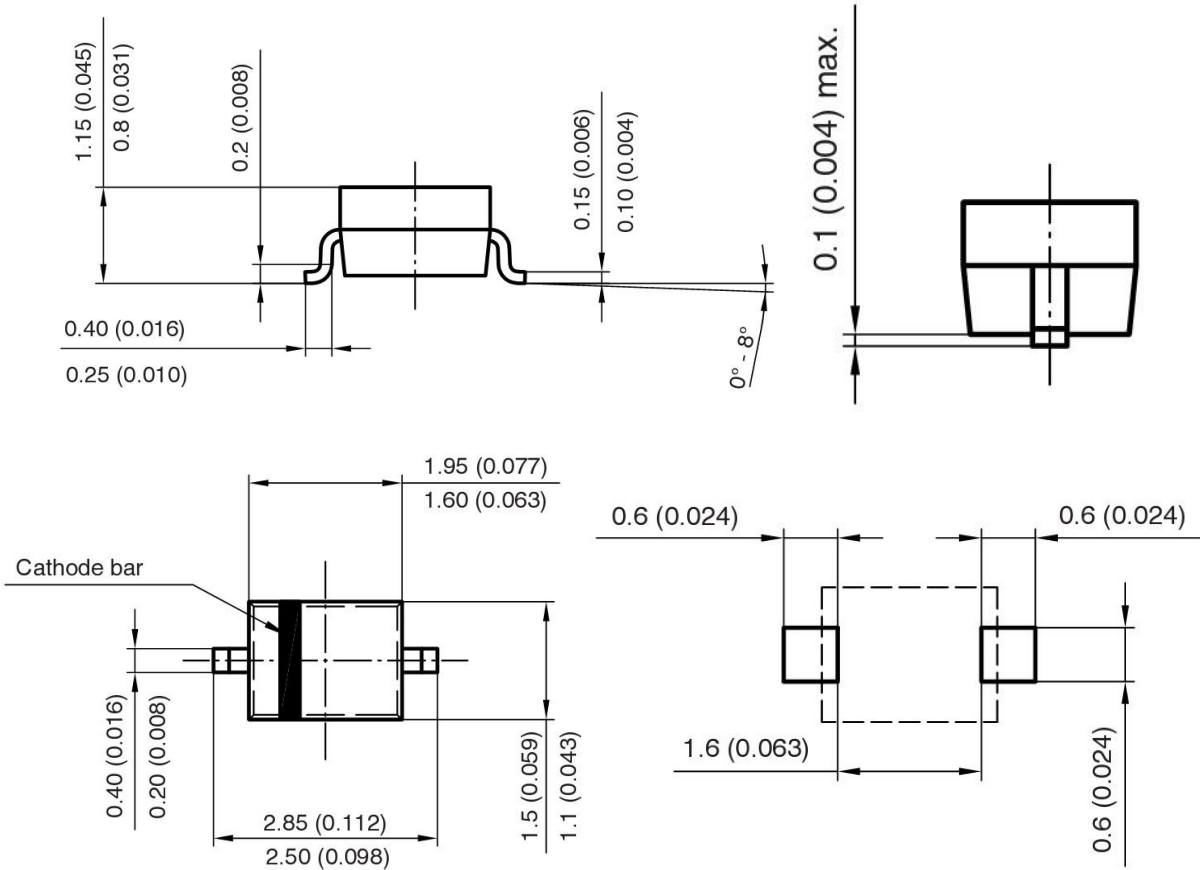
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	VRWM				5	V
Reverse Breakdown Voltage	VBR	It = 1mA	6			V
Reverse Leakage Current	IR	VR = VRWM			10	μA
Clamping Voltage	VC	I <sub>PP</sub> =1A, t <sub>P</sub> = 8/20μs			9.8	V
Clamping Voltage	VC	I <sub>PP</sub> =24A, t <sub>P</sub> = 8/20μs			13.5	V
Junction Capacitance	CJ	VR=0V, f = 1MHz			350	pF

**Characteristics Curves**





**PACKAGE OUTLINE DIMENSIONS in millimeters (inches) :SOD323**



**Mounting Pad Layout**

**Disclaimer**

Specifications are subject to change without notice.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.