

Features

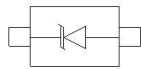
150 Watts peak pulse power ($t_p = 8/20\mu s$)
 Transient protection for high speed data lines to
 IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
 IEC 61000-4-4 (EFT) 40A (5/50ns)
 Protects One Power or I/O Port
 Low leakage current
 Low operating and clamping voltages
 Solid-state silicon avalanche technology

Mechanical Characteristics

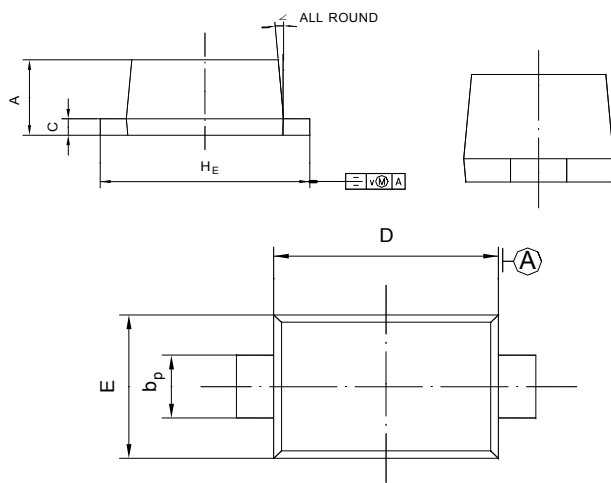
Package: SOD-523
 Lead Finish: Matte Tin
 Case Material: "Green" Molding Compound.
 UL Flammability Classification Rating 94V-0
 Moisture Sensitivity: Level 3 per J-STD-020
 Terminal Connections: See Diagram Below

Applications

Cellular Handsets and Accessories
 Personal Digital Assistants
 Notebooks and Handhelds
 Portable Instrumentation
 Digital Cameras
 Peripherals
 Audio Players
 Keypads, Side Keys, LCD Displays, USB2.0



SOD-523 (Top View)



SOD-523 mechanical data

UNIT	A	b _p	C	D	E	H _E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Ordering information

Order code	Package	Making
ESD5Z3.3T1G	SOD-523	ZE

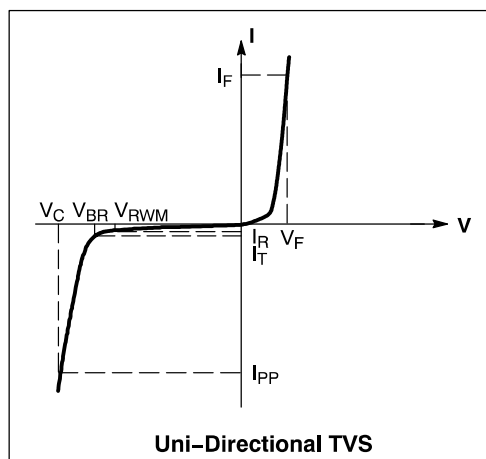
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

ESD5Z3.3T1G

Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
V _{BR}	Breakdown Voltage @ I _T
I _T	Test Current
I _F	Forward Current
V _F	Forward Voltage @ I _F
P _{pk}	Peak Power Dissipation
C	Capacitance @ V _R = 0 and f = 1.0 MHz



Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			3.3	V	
Breakdown Voltage	V _{BR}	5			V	I _T = 1mA
Reverse Leakage Current	I _R			0.2	uA	V _{RWM} = 5V
Clamping Voltage	V _C			9	V	I _{PP} = 1A (8 x 20μs pulse)
Clamping Voltage	V _C			14	V	I _{PP} = 11A (8 x 20μs pulse)
Junction Capacitance	C _J			110	pF	V _R = 0V, f = 1MHz

RATING AND CHARACTERISTIC CURVES (ESD5Z3.3T1G)

Fig1. 8/20 μ s Pulse Waveform

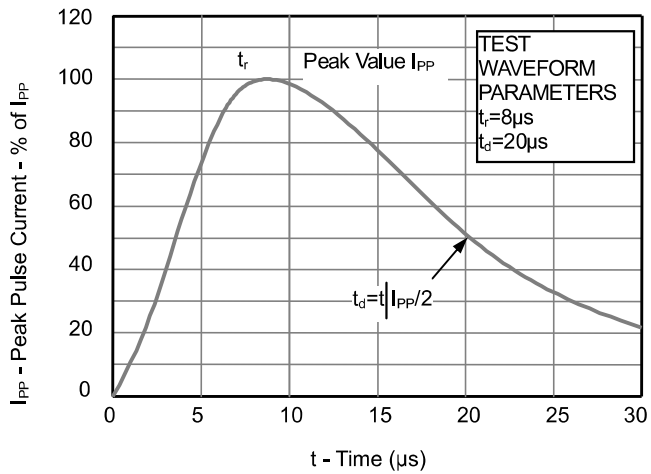


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

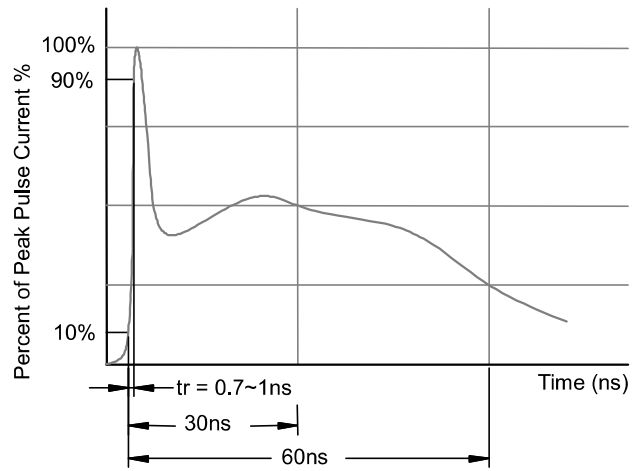
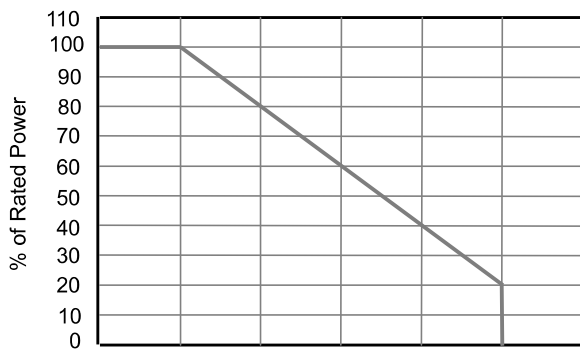


Fig3. Power Derating Curve



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