Features

- Bi-directional ESD protection of one line
- 120Watts peak pulse power (tp = 8/20μs)
- Working voltage: 5V
- Junction Capacitance: 15pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-5 (Lightning) 8A (8/20μs)

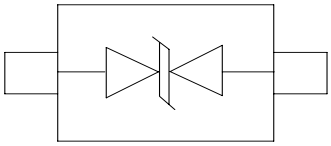
Applications

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

Mechanical Data

- Package:SOD-523
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
ESD5B5.0ST1G	SOD-523	5B	3000 Tape & Reel	7 inches

Absolute Maximum Rating(T_A=25°C unless otherwise Specified)

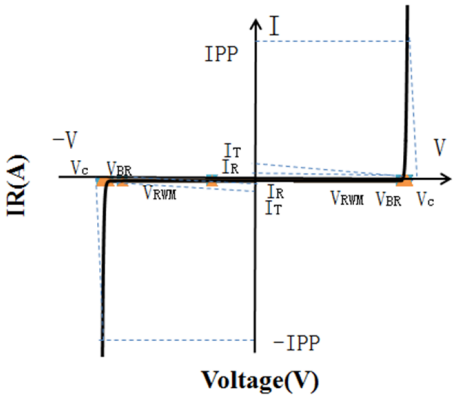
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P_{pk}	120	W
Peak Pulse Current (8/20μs)	I_{PP}	8	A
ESD per IEC 61000−4−2 (Air) ESD per IEC 61000−4−2 (Contact)	V_{ESD}	±30 ±30	kV
Operating Temperature Range	T_J	−55 to +125	°C
Storage Temperature Range	T_{stg}	−55 to +150	°C

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

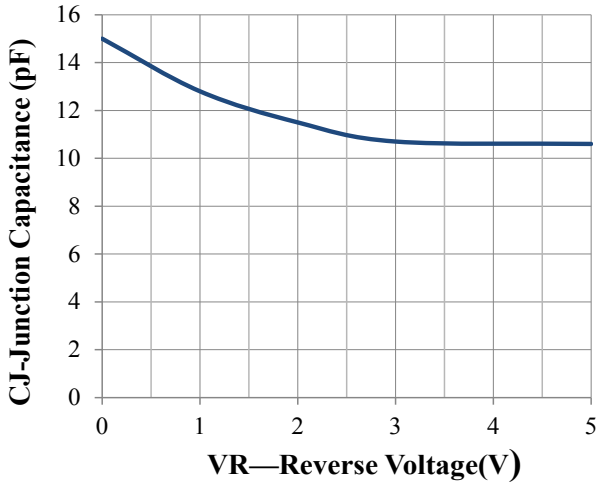
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T = 1mA	5.5			V
Reverse Leakage Current	I_R	V_{RWM} = 5V			0.5	uA
Holding Voltage	V_C	I_{PP}=1A; tp=8/20us			7.5	V
Clamping Voltage	V_C	I_{PP}=8A;tp=8/20us			15	V
Junction Capacitance	C_J	V_R=0V; f=1MHz		15	18	pF

Electrical Parameters (T_A = 25°C unless otherwise noted)

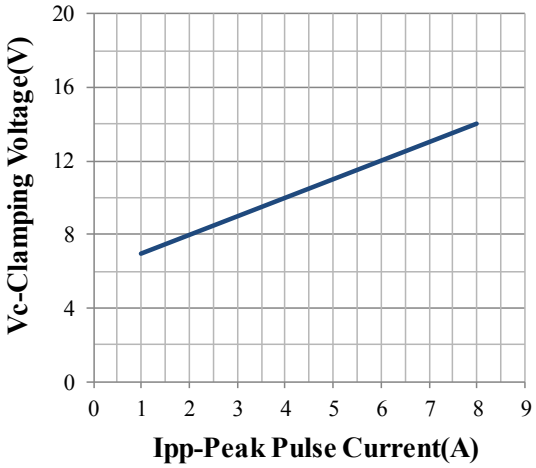
Symbol	Parameter
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_c	Clamping Voltage @Ic



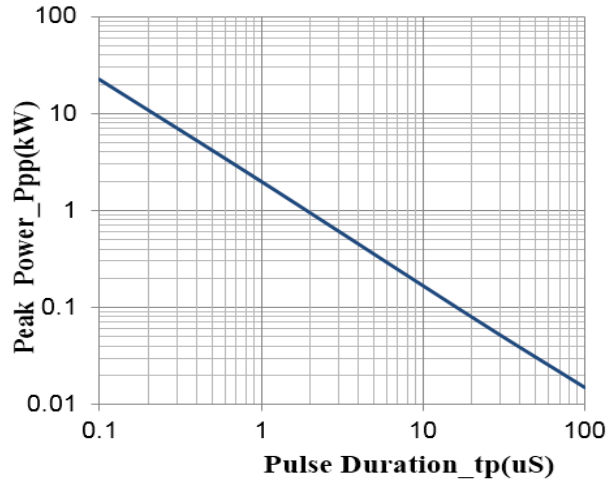
Typical Characteristics(T_A=25°C unless otherwise Specified)



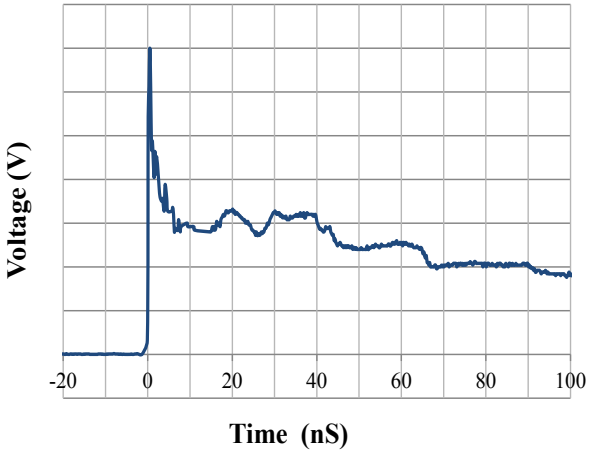
Junction Capacitance vs. Reverse Voltage



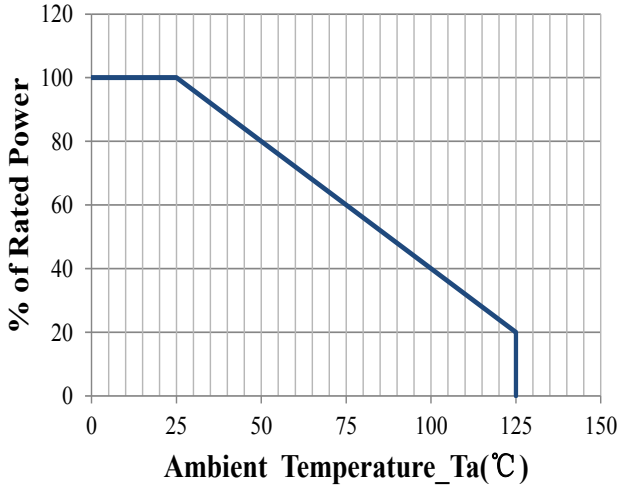
Clamping Voltage vs. Peak Pulse Current



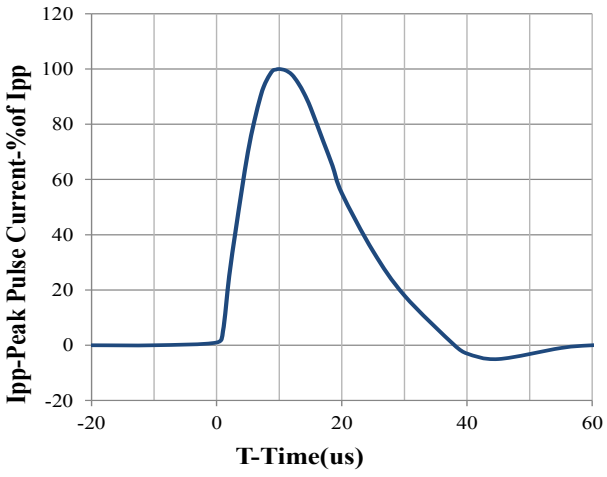
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

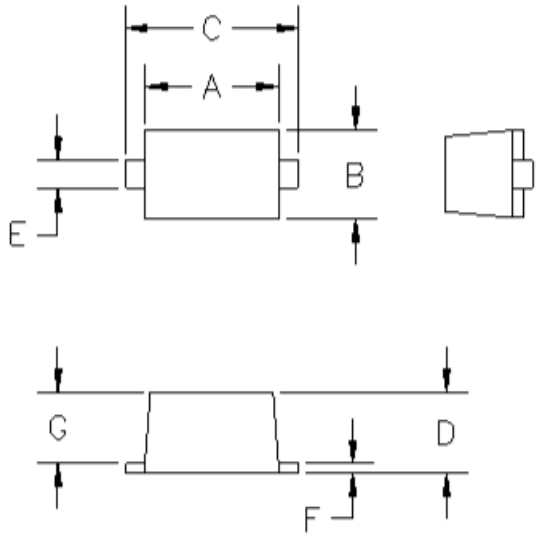


Power Derating Curve



8 X 20us Pulse Waveform

Outline Drawing – SOD-523



DIMENSIONS					
DIM[N]	INCHES		MM		NOTE
	. MIN	MAX	MIN	MAX	
A	. 043	. 051	1.10	1.30	—
B	. 028	. 035	0.70	0.90	—
C	. 059	. 067	1.50	1.70	—
D	. 020	. 028	0.50	0.70	—
E	. 010	. 014	0.25	0.35	—
F	. 004	. 008	0.10	0.20	—
G	. 020	. 028	0.50	0.70	—