

Features

- Protects one data or power line
- Operating voltage: 15V
- Ultra low leakage: nA level
- Low clamping voltage
- Compliant to Halogen-free

Main applications

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

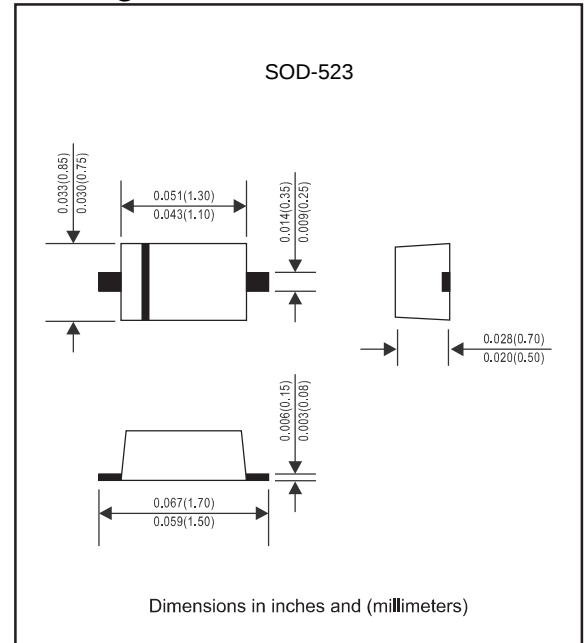
Protection solution to meet

- IEC61000-4-2(ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
- IEC61000-4-5 (Lightning) 7A (8/20 μs)

MECHANICAL CHARACTERISTICS

- Package: SOD-523
- Case Material: "Green" Molding Compound
- Lead finish : Matte Tin

Package outline



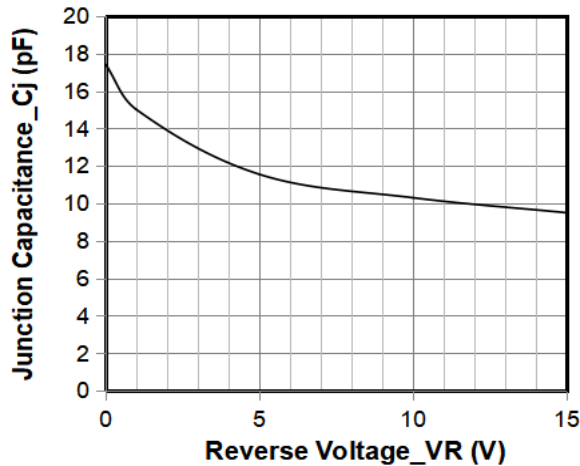
Absolute maximum ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	230	W
Peak Pulse Current (8/20 μs)	Ipp	7	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 30 ± 30	kV
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

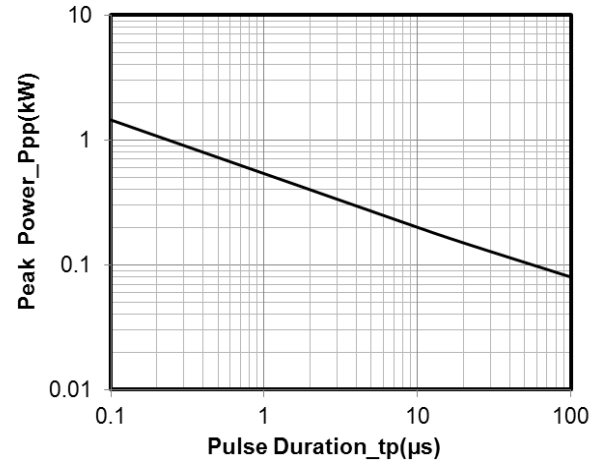
Electrical characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			15	V	
Breakdown Voltage	VBR	16.5			V	$I_T = 1\text{mA}$
Reverse Leakage Current	IR			0.2	μA	$VRWM = 15\text{V}$
Clamping Voltage	VC		21	23	V	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)
Clamping Voltage	VC		33	35	V	$I_{PP} = 7\text{A}$ (8 x 20 μs pulse)
Junction Capacitance	CJ		17		pF	$VR = 0\text{V}$, $f = 1\text{MHz}$

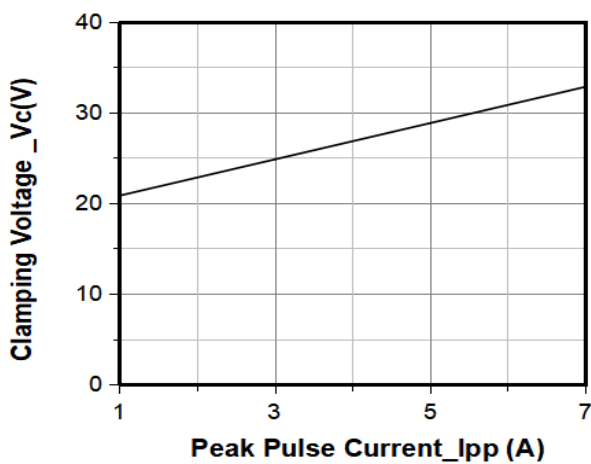
Typical Characteristics curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)



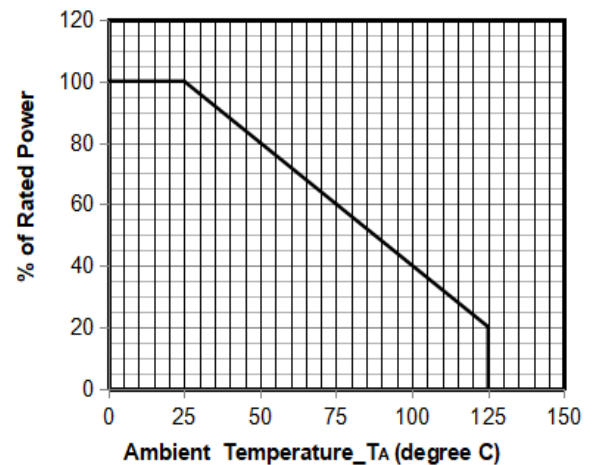
Junction Capacitance vs. Reverse Voltage



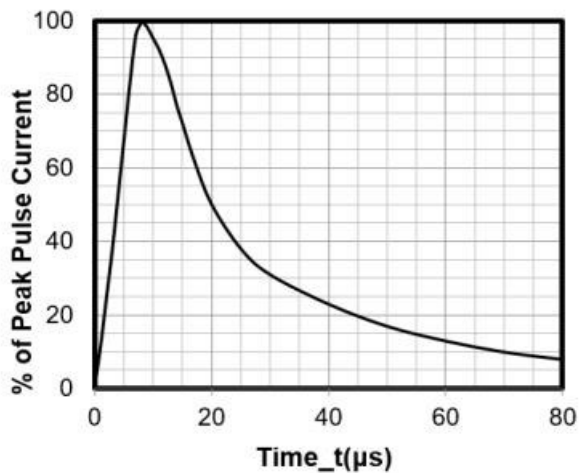
Peak Pulse Power vs. Pulse Time



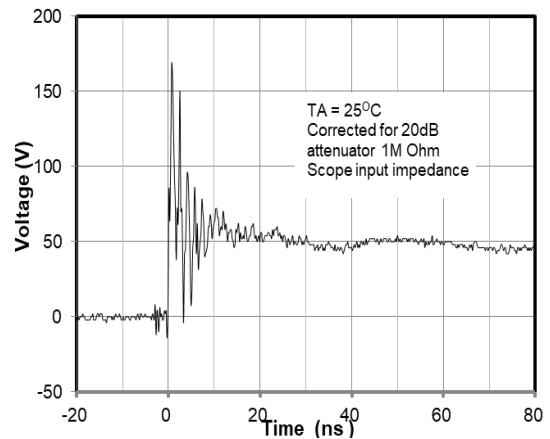
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20 μs Pulse Waveform



ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

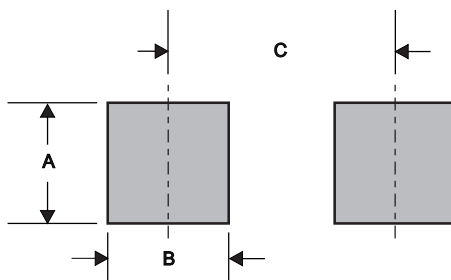
Pinning information

Pin	Simplified outline	Symbol
Bi-Directional		

Marking

Type number	Marking code
ESD5Z15A07C	15D

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-523	0.028 (0.70)	0.024 (0.60)	0.056 (1.42)