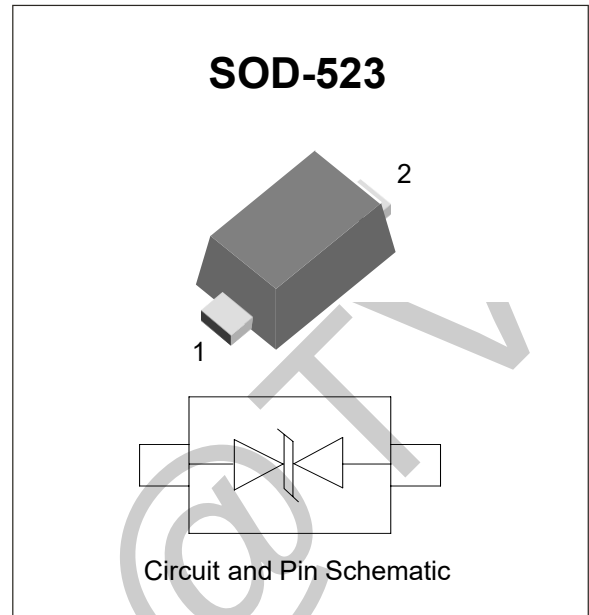


Features

- Protects one data or power line
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- IEC 61000-4-2 (ESD): Air discharge: $\pm 30\text{kV}$,
Contact discharge: $\pm 30\text{kV}$
- IEC 61000-4-5 (Lightning): 8A (8/20 μs)
- ROHS Compliant

Mechanical Data

- Package: SOD-523
- Lead Finish: Matte Tin
- Case Material: Green Molding Compound
- Moisture Sensitivity: Level 3 per J-STD-020



Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Audio Players

Ordering information

Ordercode	Marking	Package	Packaging option	Basequantity	Packaging specification
DC0521D5	5B	SOD-523	Tape and reel	10000pcs / reel	EIA STD RS-481

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

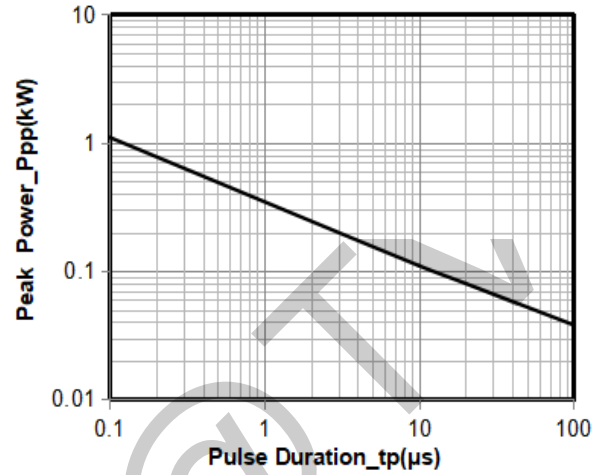
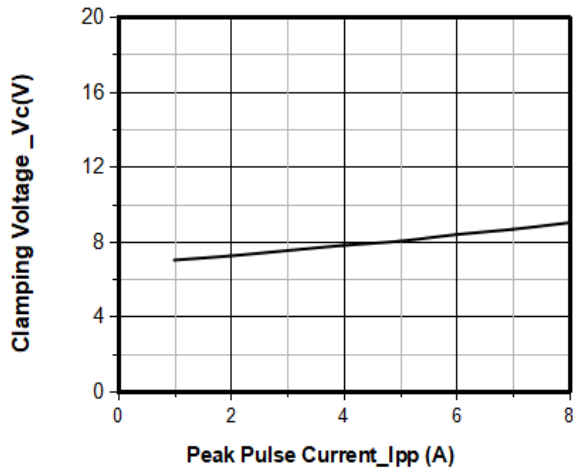
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu\text{s}$)	P_{PP}	80	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	30/30	kV
Peak Pulse Current ($T_P = 8/20\mu\text{s}$)	I_{PP}	8	A
Junction Temperature	T_J	55 to +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

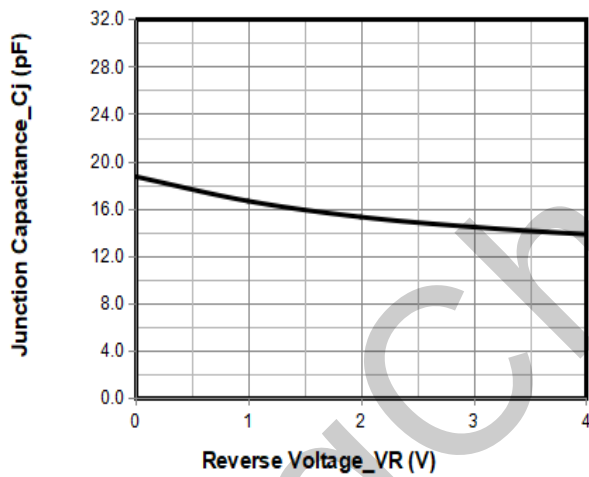
 (T_A = 25 °C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V _{RWM}				5	V
Holding Voltage	V _{BR}	I _T = 1mA	6		8	V
Reverse Leakage Current	I _R	V _{RWM} = 5V			0.2	uA
Clamping Voltage	V _C	I _{PP} = 1A, t _p = 8/20μs			8	V
Clamping Voltage	V _C	I _{PP} = 8A, t _p = 8/20μs			10	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz			20	pF

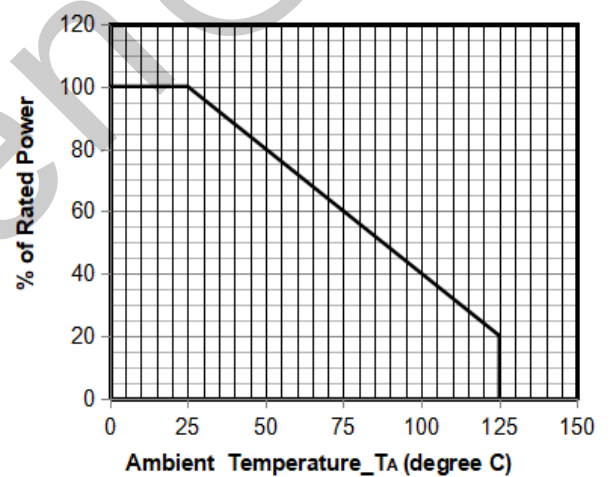
Typical Performance Characteristics (TA=25°C unless otherwise Specified)



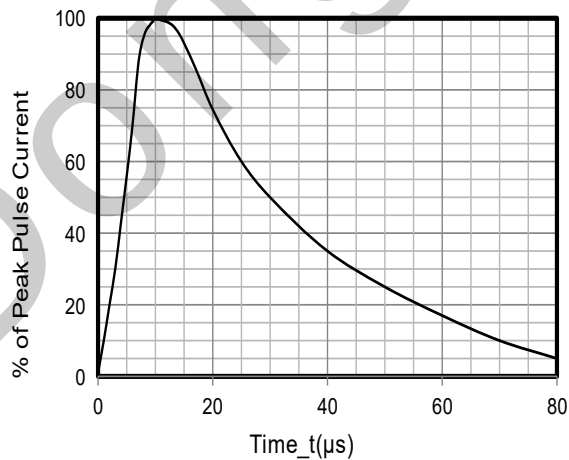
Junction Capacitance vs. Reverse Voltage



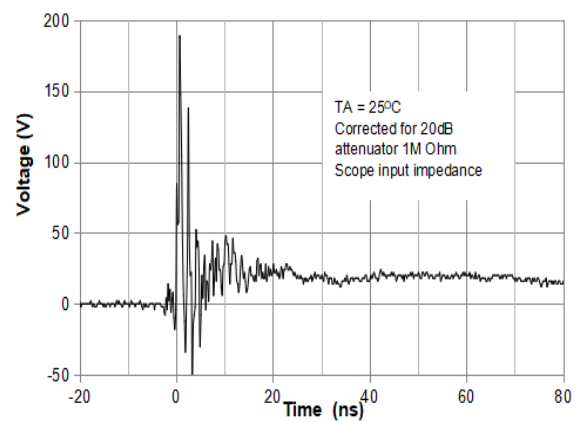
Peak Pulse Power vs. Pulse Time



Clamping Voltage vs. Peak Pulse Current ($t_p = 8/20\mu$ s)



Power Derating Curve

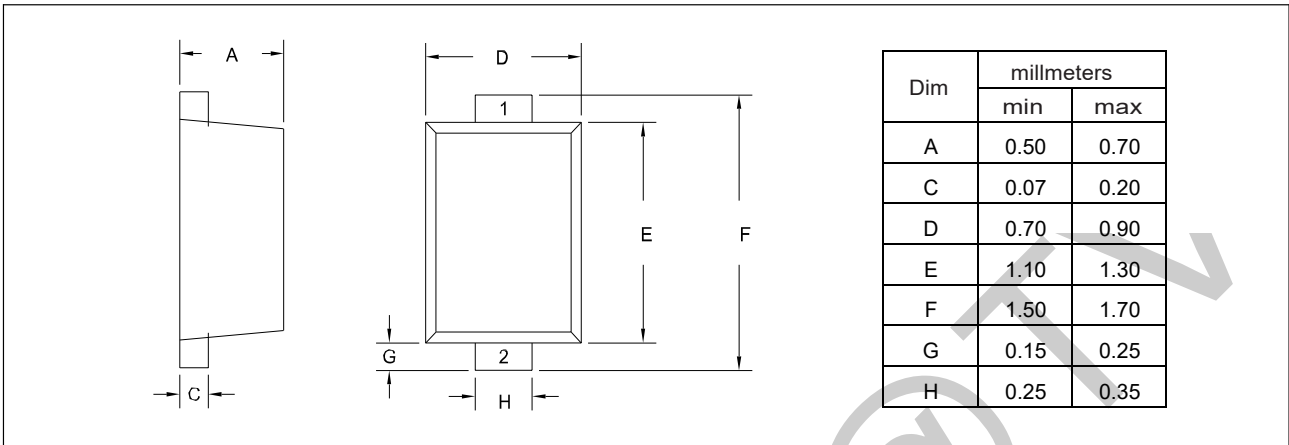


8 X 20 μ s Pulse Waveform

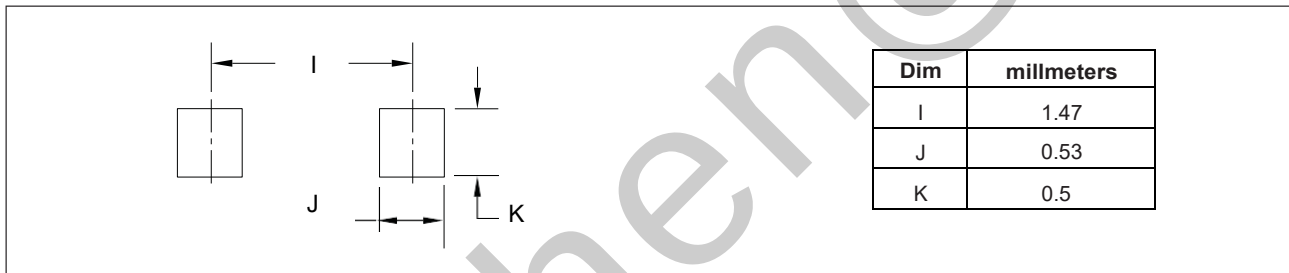
ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

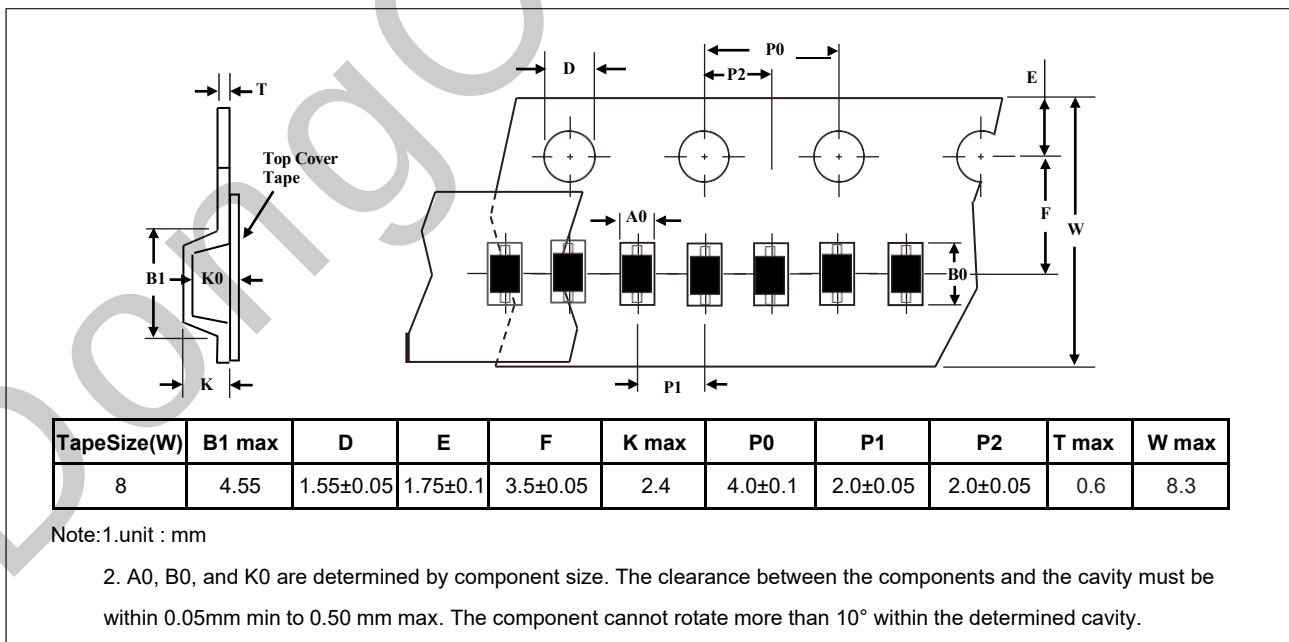
Package Dimensions



Pad Dimensions



Package Dimensions



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