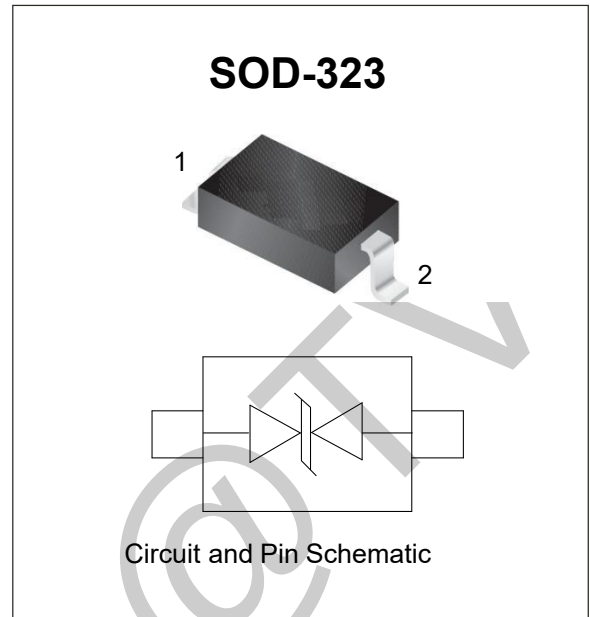


Features

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

Mechanical Data

- Package: SOD-323
- Lead finish: Matte Tin
- Case material: Green molding compound
- Moisture sensitivity: Level 3 per J-STD-020
- Marking: B5



Applications

- Cellular handsets and accessories
- Personal digital assistants
- Notebooks and handhelds
- Portable instrumentation, digital cameras
- Audio players, keypads, LCD displays

Ordering information

Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
DC0521D3	B5	SOD-323	Tape and reel	10000pcs / reel	EIA STD RS-481

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

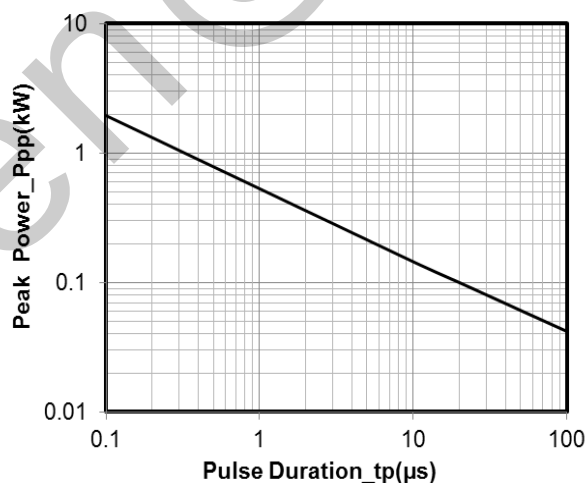
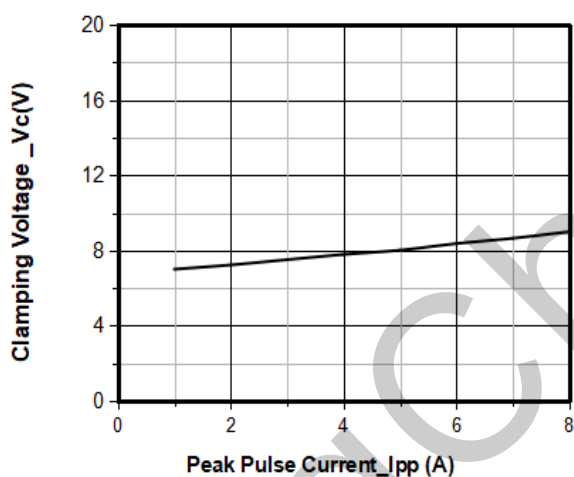
Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu\text{s}$)	P_{PP}	100	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	$\pm 30/\pm 30$	kV
Peak Pulse Current ($T_P = 8/20\mu\text{s}$)	I_{PP}	8	A
Junction Temperature	T_J	-55 ~ +125	°C
Storage temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics

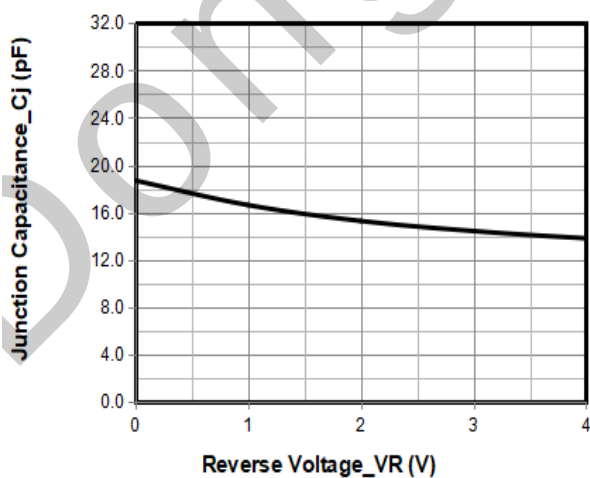
(T_A = 25 °C unless otherwise specified)

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	-	-	13	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz	-	18	-	pF

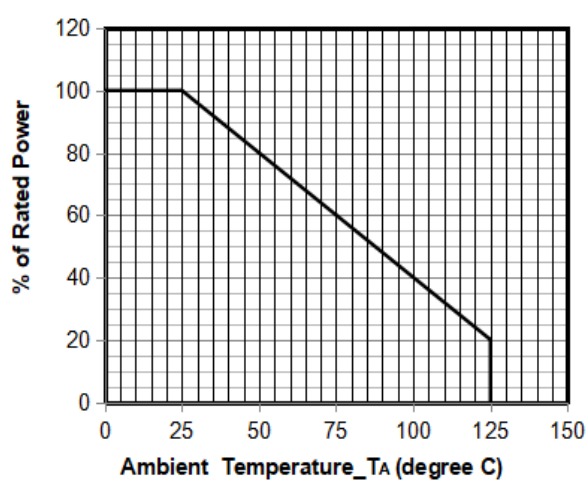
Typical Performance Characteristics (T_A = 25°C unless otherwise Specified)

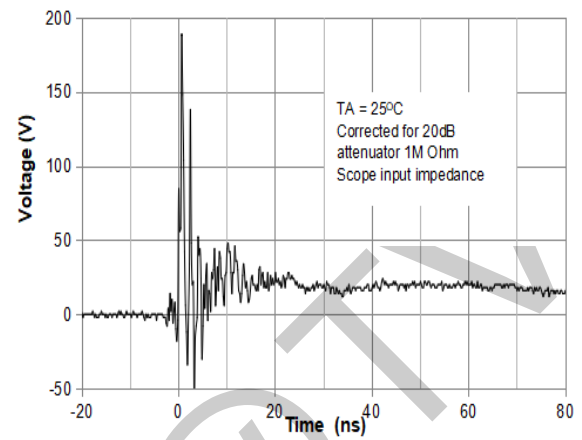
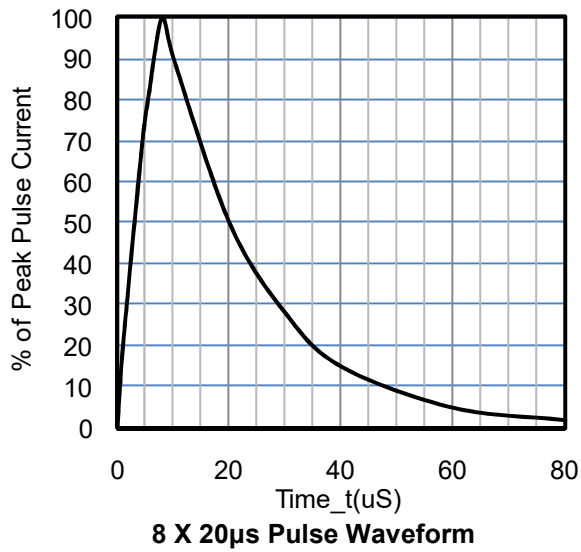


Junction Capacitance vs. Reverse Voltage



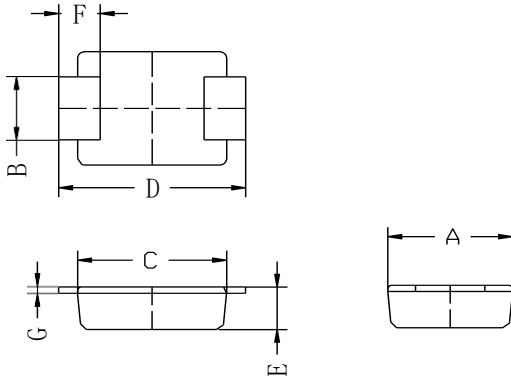
Peak Pulse Power vs. Pulse Time





ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

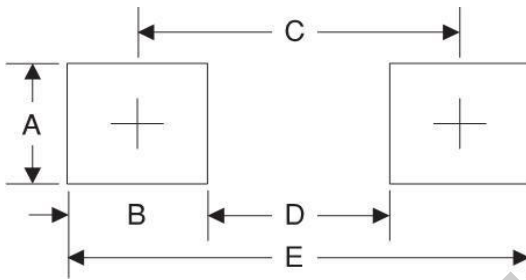
Package Dimensions



SMBF		
Dim	Min	Max
A	3.45	3.75
B	1.90	2.10
C	4.15	4.35
D	5.10	5.50
E	1.05	1.55
F	0.70	1.35
G	0.15	0.25

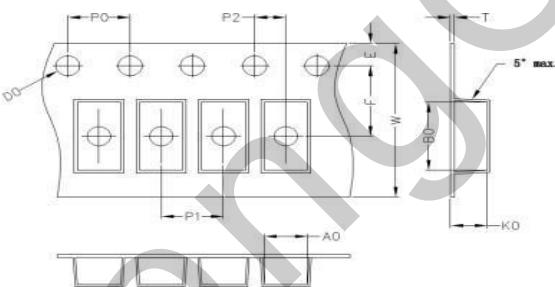
Dimensions in millimeters

Pad Dimensions



Symbol	Unit (mm)	Unit (inch)
A	2.30	0.091
B	2.00	0.078
C	4.10	0.161
D	2.10	0.083
E	6.10	0.240

Tape and Reel Specification



A0	B0	K0	D0	E	F
3.80 ± 0.2	5.75 ± 0.2	1.40 ± 0.2	1.50 ± 0.1	1.75 ± 0.2	5.50 ± 0.2
P0	P1	P2	T	W	
4.0 ± 0.1	8.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05	12 ± 0.5	
Trailer Tape		50 Empty Pockets			
Leader Tape		100 Empty Pockets			

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