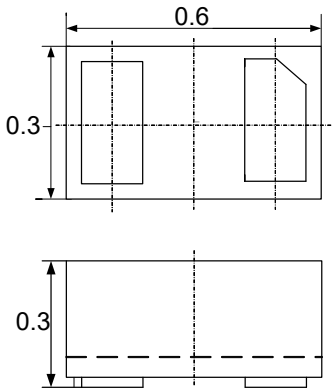
D5V0M1U2LP3-7

1-Line Ultra Small Bi-directional TVS Diode

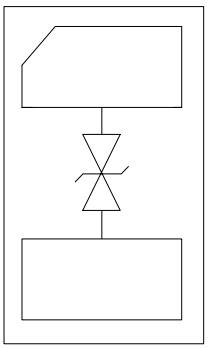
Features

- Ultra small package: 0.6x0.3x0.3mm
- low capacitance
- Protects one data or power line
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- 2-Pin leadless package
- Complies with following standards:
  - – IEC 61000-4-2 (ESD) immunity test
    Air discharge: ±30kV
    Contact discharge: ±30kV
  - – IEC61000-4-5 (Lightning) 9A (8/20μs)
- RoHS Compliant

Dimensions DFN0603



Pin Configuration



Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, USB 2.0, LCD Displays

Mechanical Characteristics

- Package: DFN0603-2 (0.6x0.3x0.3mm)
- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Quantity Per Reel:10,000pcs
- Reel Size:7 inch
- Device Marking: AM

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	90	W
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	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

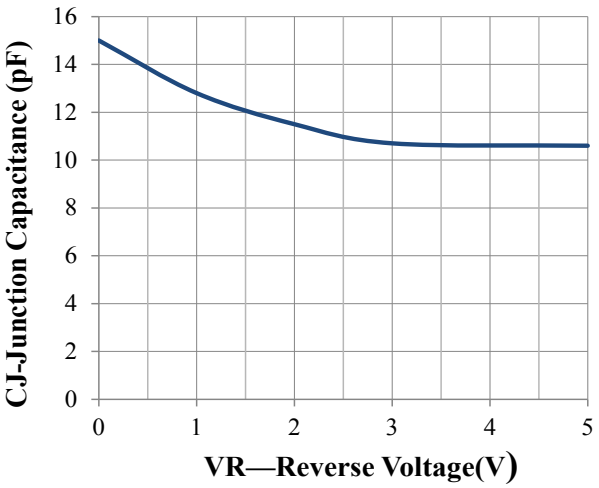
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Electrical Characteristics(TA=25°C unless otherwise specified)

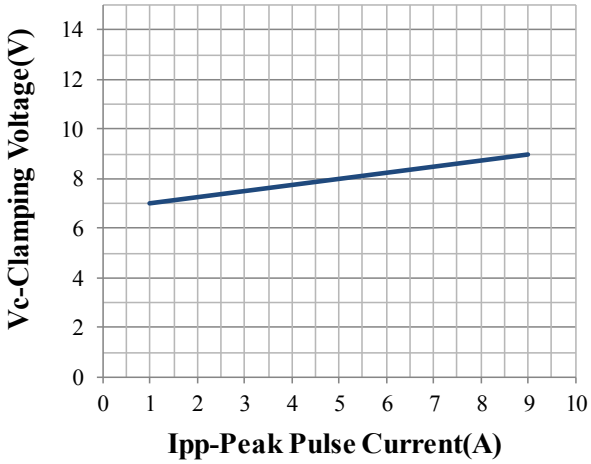
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				5	V
Breakdown Voltage	V_{BR}	I_T = 1mA	5.8			V
Reverse Leakage Current	I_R	V_{RWM} = 5V			0.2	μA
Clamping Voltage	V_C	I_{PP} = 1A (8 x 20 μs pulse)			7	V
Clamping Voltage	V_C	I_{PP} = 9A (8 x 20 μs pulse)			8.5	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		15		pF

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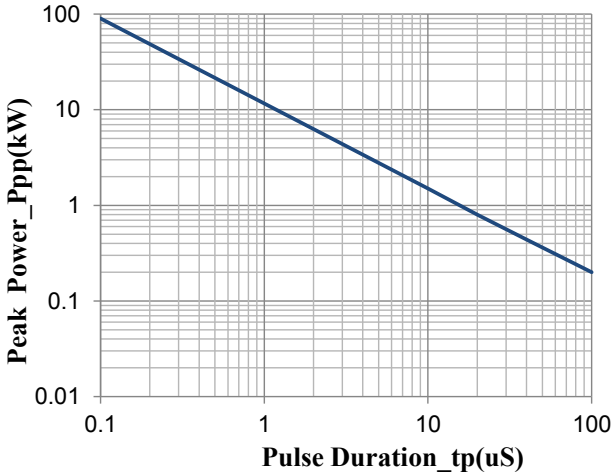
Typical Performance Characteristics (TA=25°C unless otherwise Specified)



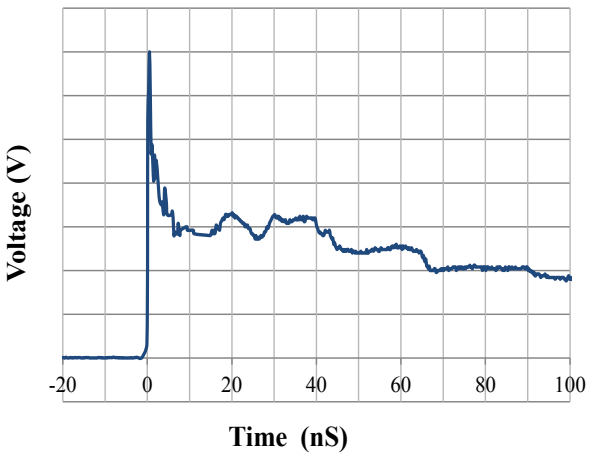
Junction Capacitance vs. Reverse Voltage



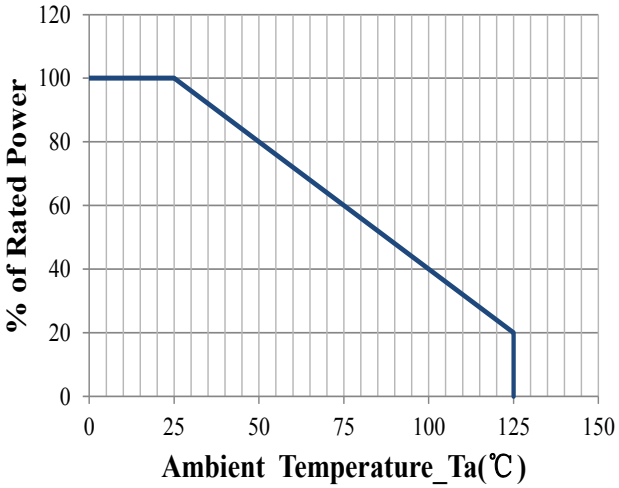
Clamping Voltage vs. Peak Pulse Current



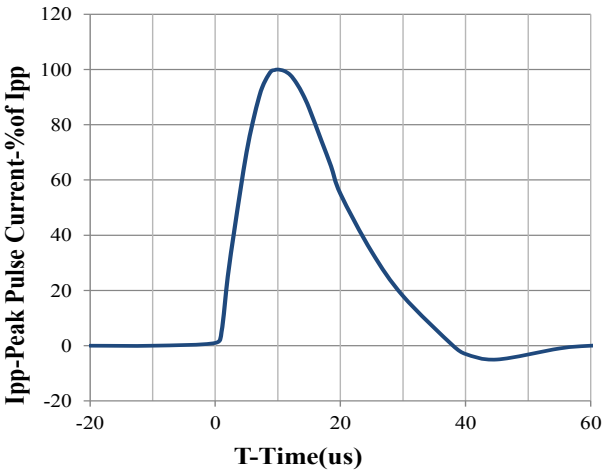
Peak Pulse Power vs. Pulse Time



IEC61000−4−2 Pulse Waveform



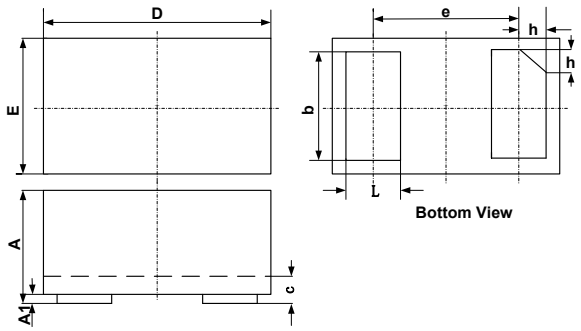
Power Derating Curve



8 X 20us Pulse Waveform

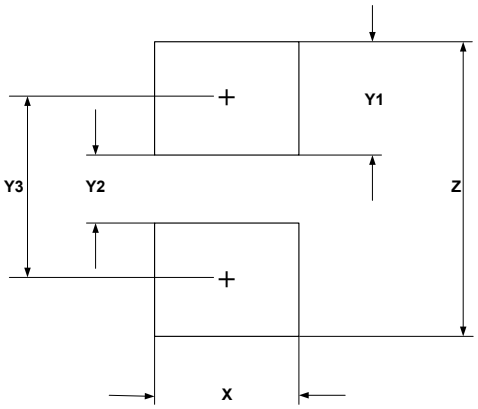
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DFN0603 Package Outline Drawing



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.230		0.330
A1	0.000	0.020	0.050
b	0.215	0.245	0.275
c	0.120	0.150	0.180
D	0.550	0.600	0.650
e	0.355 BSC		
E	0.250	0.300	0.350
L	0.160	0.190	0.220
h	0.079 BSC		

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X	0.30	0.012
Y1	0.25	0.010
Y2	0.15	0.006
Y3	0.40	0.016
Z	0.65	0.026

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