

Features

- Low operating voltage: 3.3V
- Ultra low capacitance: 0.4pF (Typ)
- Ultra low leakage: nA level
- Low clamping voltage
- -IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
- -IEC61000-4-4 (EFT) 40A (5/50ns)
- -IEC61000-4-5 (Lightning) 8A (8/20 μs)
- 2-pin leadless package
- These are Pb-Free Devices
- Response Time is Typically < 1 ns

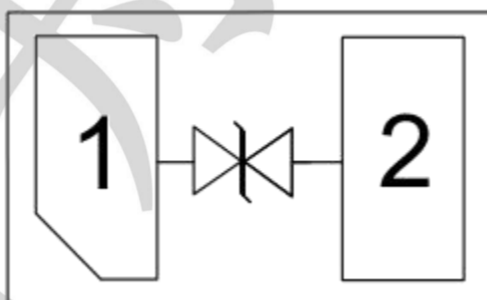
Mechanical Characteristics

- Package: DFN0603-2(0201)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- -IEC 61000-4-2 (ESD) immunity test

Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- USB 2.0 power and data line

Dimensions and Pin Configuration



Marking:K2Z

Absolute Maximum Ratings($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

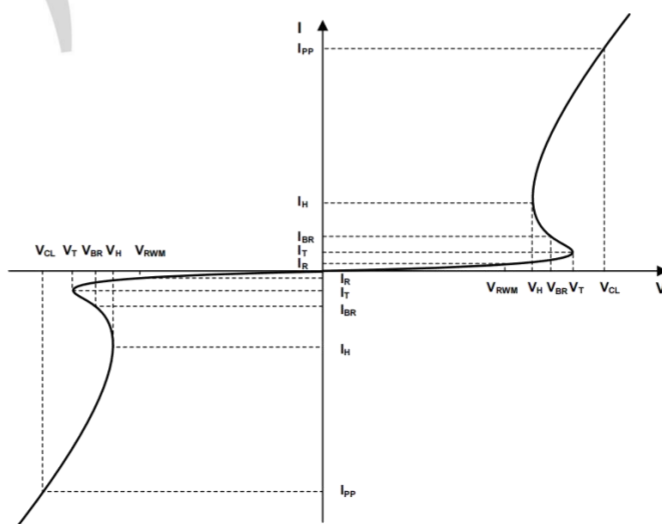
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	72	W
Peak Pulse Current (8/20 μs)	Ipp	8	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 30 ± 30	KV
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

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

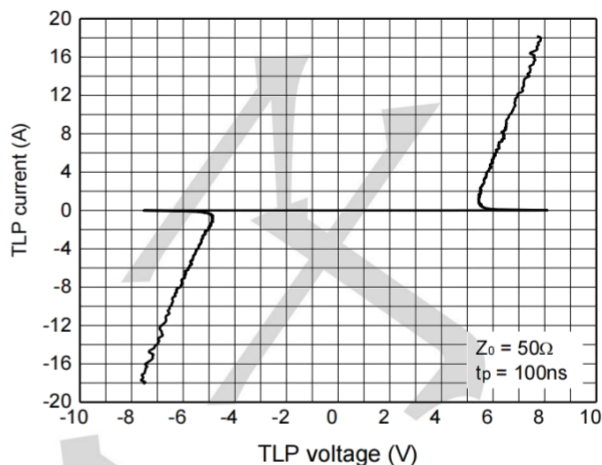
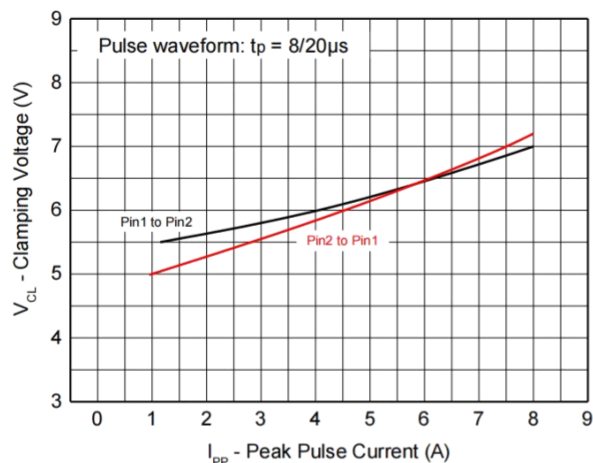
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	--	--	3.3	V	
Breakdown Voltage	VBR	4.0	--	--	V	$I_T = 1\text{mA}$
Reverse Leakage Current	IR	--	--	500	nA	$VRWM = 3.3\text{V}$
Clamping Voltage	VC	--	5.5	7.0	V	$I_{pp} = 1\text{A}$ (8x 20 μs pulse)
Clamping Voltage	VC	--	7.5	10	V	$I_{pp} = 8\text{A}$ (8x 20 μs pulse)
Junction Capacitance	CJ	--	0.4	0.6	pF	$VR = 0\text{V}$, $f = 1\text{MHz}$

Electrical Characteristics

Symbol	Parameter
V_{BR}	Reverse Breakdown Voltage
I_{BR}	Reverse Breakdown Current
V_{RWM}	Reverse Stand-off Voltage
I_R	Reverse Leakage Current
V_H	Holding Voltage
I_H	Holding Current
V_T	Trigger Voltage
I_T	Trigger Current
I_{PP}	Peak Pulse Current
V_{CL}	Clamping Voltage

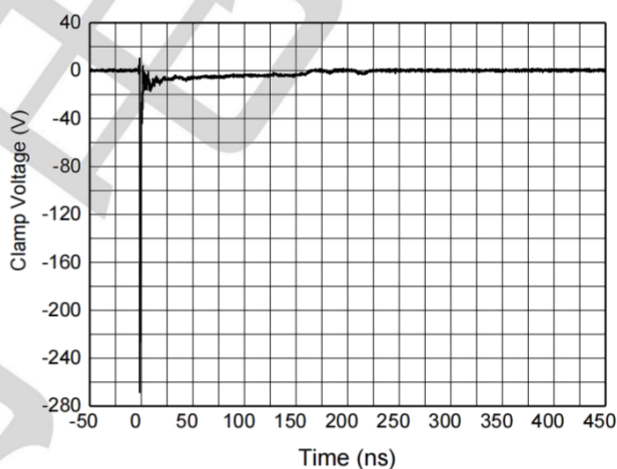
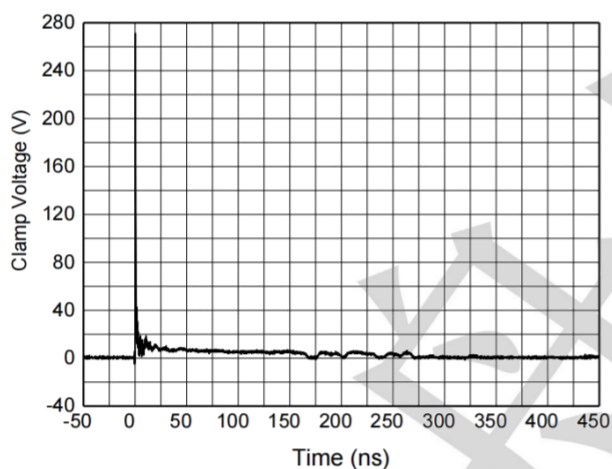


Characteristic Curves



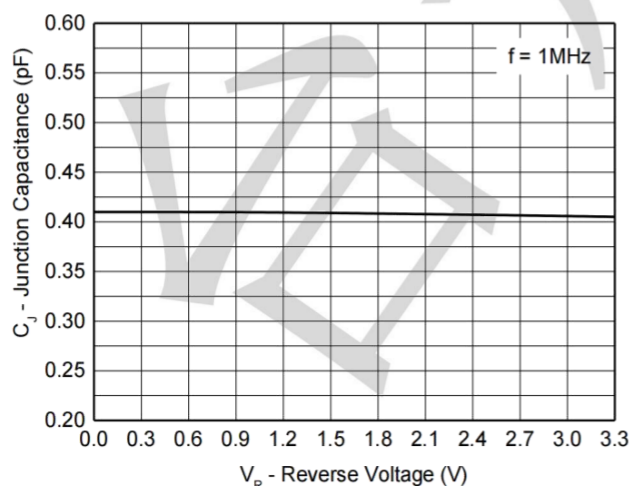
Clamping Voltage vs. Peak Pulse Current

TLP IV Curve



+8kV contact discharge per IEC61000-4-2

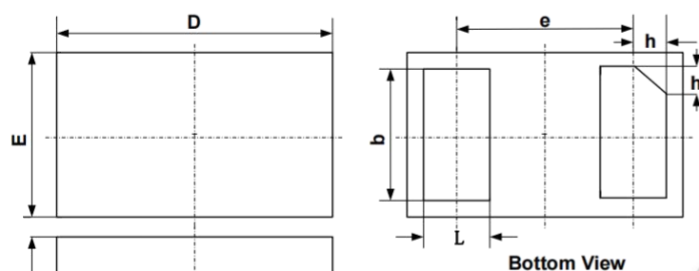
-8kV contact discharge per IEC61000-4-2



Capacitance vs. Reverse Voltage

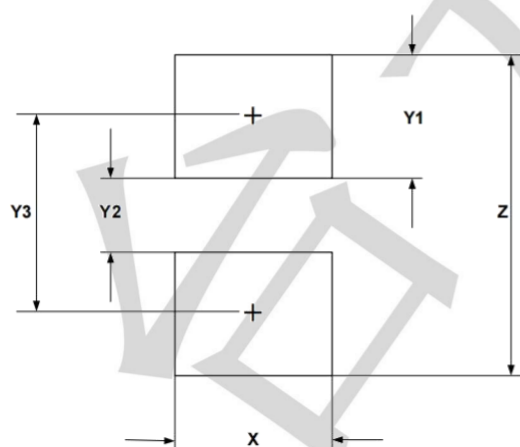
Package Outline & Dimensions

DFN0603-2 (0201)



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.230	0.300	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