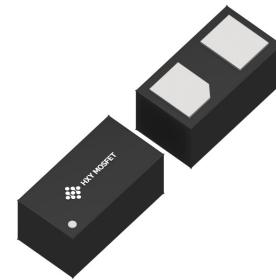




Description

Femtofarad bidirectional ElectroStatic Discharge (ESD) protection diode in a leadless ultra small DFN0603-2L Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients. The combination of extremely low capacitance, high ESD maximum rating and ultra small package makes the device ideal for high-speed data line protection and antenna protection applications.



DFN0603-2L
(DFN-2(0.3x0.6))

Features

- ★ Ultra small SMD package
- ★ Bidirectional ESD protection of one line
- ★ Femtofarad capacitance: CJ = 3pF (Max)
- ★ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 20\text{KV}$, Contact discharge: $\pm 20\text{KV}$
- ★ RoHS Compliant



Circuit Diagram

Applications

- ★ ultra high-speed datalines
- ★ very sensitive interface lines
- ★ generic interface lines
in portable electronics, communication, consumer and computing devices.

Ordering Information

Product ID	Pack	Qty(PCS)
AOZ8251BDI-05	DFN0603-2L(DFN-2(0.3x0.6))	15000



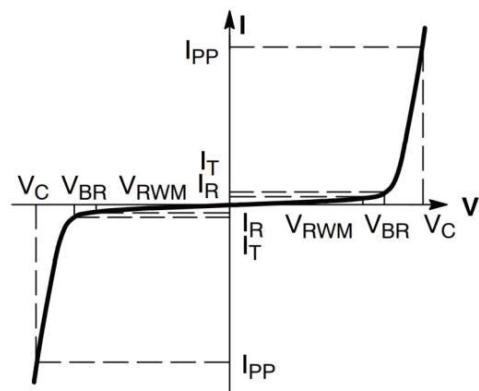
Absolute Ratings(Tamb = 25°C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P _{PK}	30	W
Maximum lead temperature for soldering during 10s	T _L	260	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C
Operating Temperature Range	T _{OP}	-40 to +125	°C
ESD voltage IEC 61000-4-2 (air discharge)	V _{ESD}	20	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V _{ESD}	20	kV

Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V _{RWM}	--	--	5.0	V	
Breakdown Voltage	V _{BR}	6.0	--		V	I _T =1mA
Leakage Current I _{Leak}	I _R	--	--	1.0	uA	V _{RWM} =5V
Clamping Voltage	V _C	--	8	--		I _{PP} =1A, T _p =8/20μs
Clamping Voltage	V _C	--	--	12	V	I _{PP} =4.5A, T _p =8/20μs
Junction Capacitance	C _J	--	--	3	pF	V _R =0V, f=1MHz

Symbol	Parameter
I _{PPM}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Working Peak Reverse Voltage
I _R	Reverse Leakage Current @ V _{RWM}
I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T





Typical Characteristics

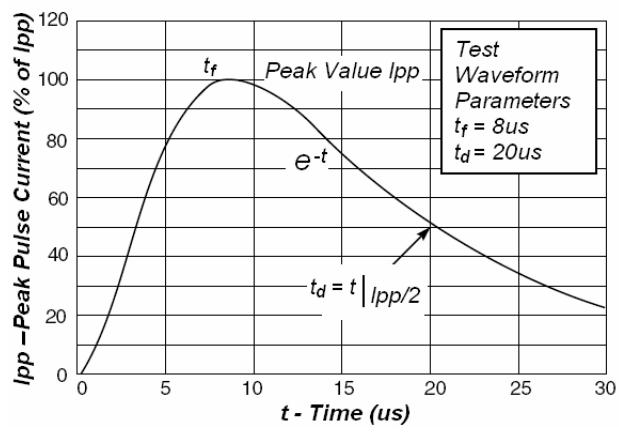


Fig1. Pulse Waveform

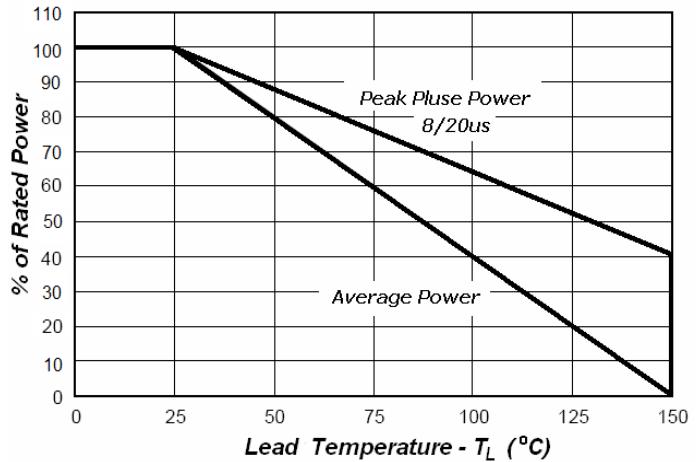


Fig2.Power Derating Curve

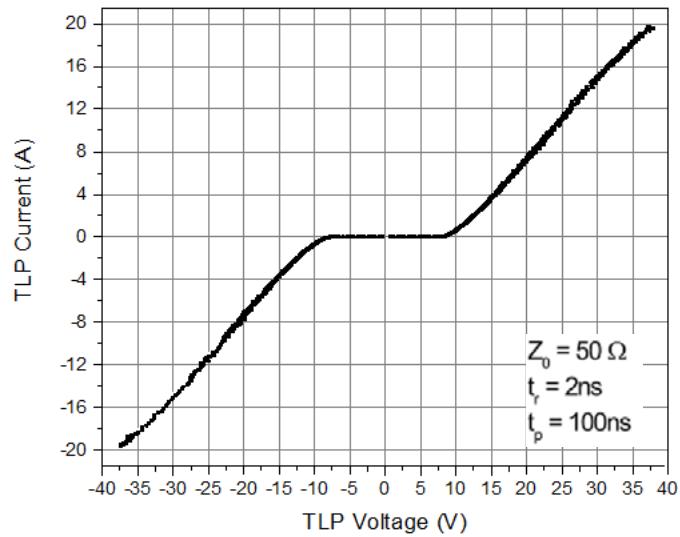
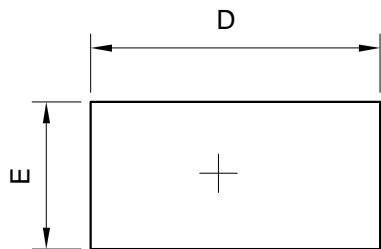


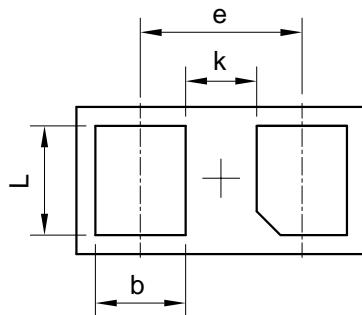
Fig3.TLP Measurement



Outline And Dimensions



TOP VIEW



BOTTOM VIEW

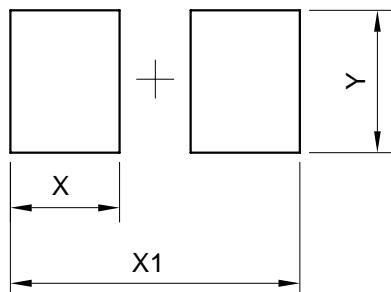
DFN0603-2L(DFN-2(0.3x0.6))			
Dim	Min	Typ.	Max
D	0.58	0.61	0.64
E	0.28	0.31	0.34
e	-	0.34	-
L	0.20	0.23	0.26
b	0.16	0.19	0.22
A	0.25	0.28	0.31
k	0.12	0.15	0.18

All Dimensions in mm



SIDE VIEW

Soldering Footprint



DFN0603-2L	
DIM	(mm)
X	0.23
X1	0.61
Y	0.30



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