

Features

- Low operating voltage: $\pm 2.5V$
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
 - – IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 15kV$
Contact discharge: $\pm 15kV$
- – IEC61000-4-5 (Lightning) 4A (8/20 μs)
- RoHS Compliant
- Lead Finish: NiPdAu

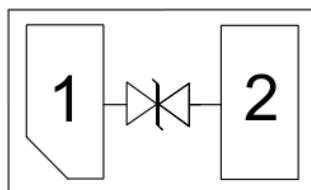
Mechanical Characteristics

- Package: DFN0603-2 (0201)
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty @10000/7Inch Tape & Reel

Applications

- USB 2.0 and USB 3.0
- HDMI 1.4 and HDMI 2.0
- SATA and eSATA
- DVI
- IEEE 1398

Dimensions and Pin Configuration



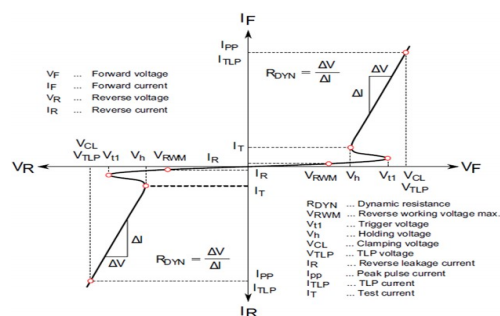
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	30	W
Peak Pulse Current (8/20μs)	IPP	4	A
ESD per IEC 61000-4-2 (Air)	VESD	±15	kV
ESD per IEC 61000-4-2 (Contact)		±15	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			2.5	V	
Breakdown Voltage	VBR	3.6	6.5		V	IT = 1mA
Holding Voltage	Vh		1.75		V	IT = 100mA
Reverse Leakage Current	IR			0.1	μA	VRWM = 2.5V
Clamping Voltage	VC		1.75		V	I _{PP} = 1A (8 x 20μs pulse)
Clamping Voltage	VC		2.9		V	I _{PP} = 5 A (8 x 20μs pulse)
Junction Capacitance	CJ		0.25		pF	VR = 0V, f = 1MHz

Symbol	Parameter
I _T	Test Current
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @I _C



Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig.1 - Dynamic resistance with positive clamping voltage

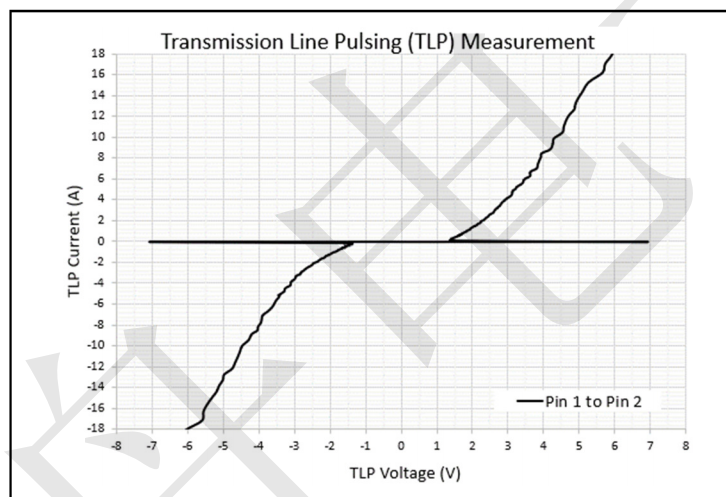
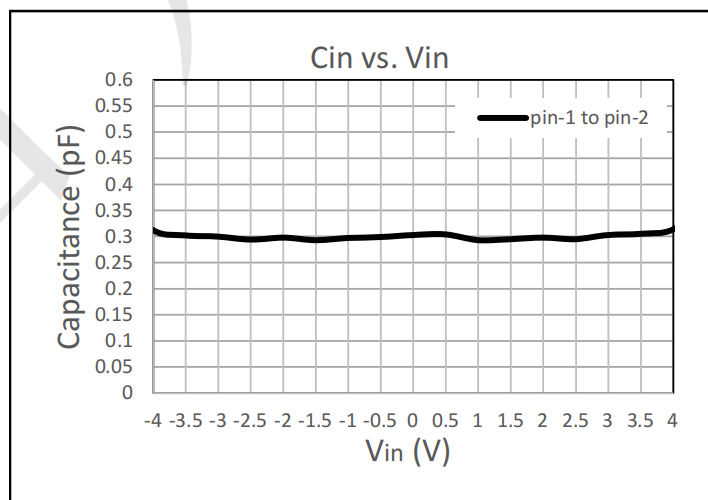


Fig.2 - Typical Variation of C_{IN} vs. V_{IN}

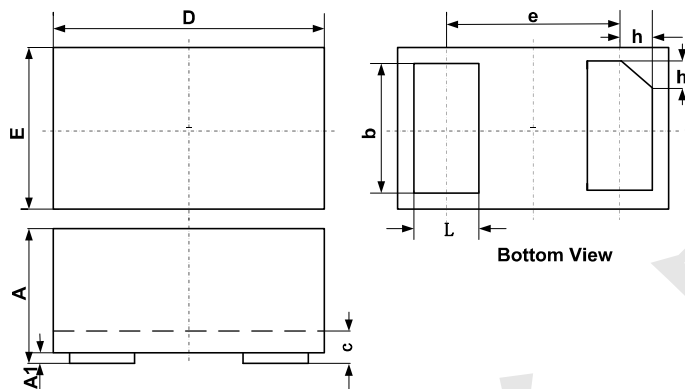


PESD2V5Y1BSFYL-TP

1-Line Bi-directional TVS Diode

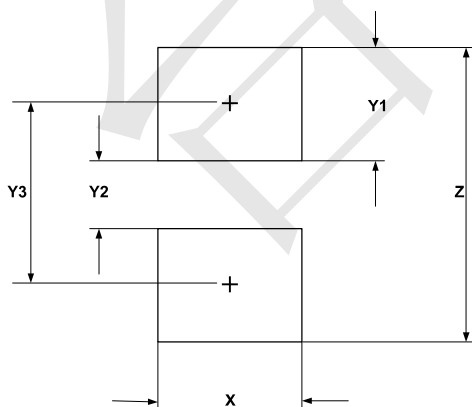
WWW.TECHPUBLIC.COM

DFN0603-2 Package Outline Drawing (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