



Features

- Bi-directional ESD protection of one lines
- 40Watts peak pulse power (tp = 8/20μs)
- Working voltage: 3.3V
- Junction Capacitance: 0.22pF(Typ)
- Low leakage current
- IEC 61000-4-2 ±15kV contact ±20kV air
- IEC 61000-4-5 (Lightning) 6A (8/20μs)

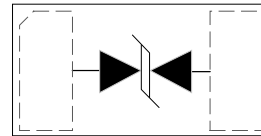
Applications

- USB3.0 and USB3.1
- Ultra-high-speed data lines
- Sensitive interfaces lines
- Notebooks, Desktops, and Servers
- Portable instrumentation

Mechanical Data

- Package:DFN0603-2L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
PESD4V0Y1BSFYL	DFN0603-2L	C9	10000 Tape & Reel	7 inches

Absolute Maximum Rating($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

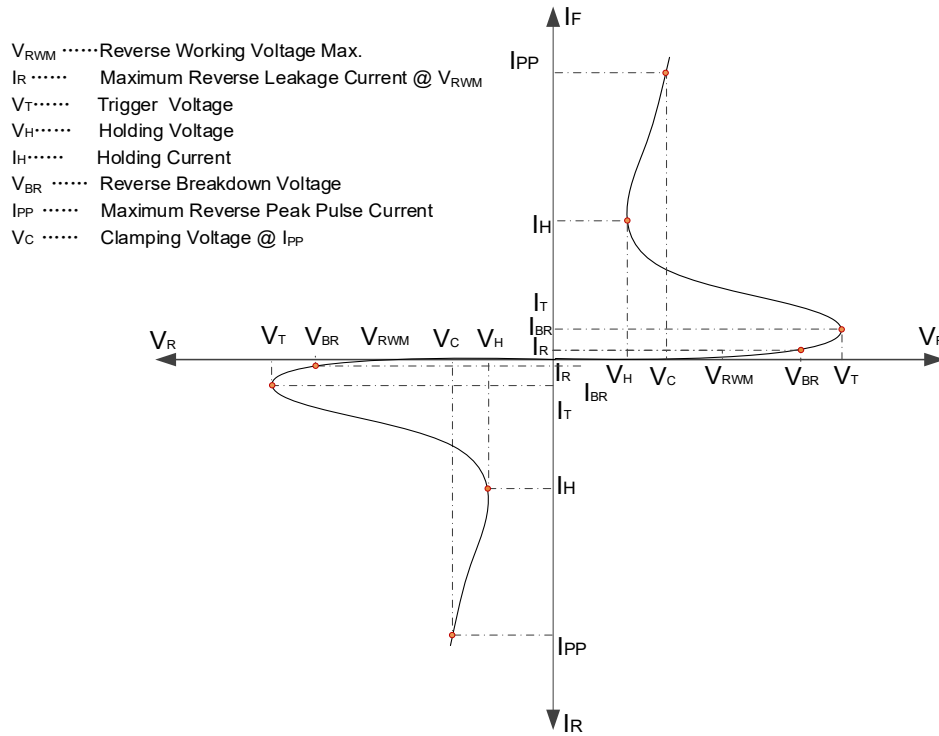
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	PPP	40	Watts
Peak Pulse Current ($t_p = 8/20\mu\text{s}$) (Note1)	I_{pp}	6	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	20 15	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}\text{C}$
Junction Temperature	T_J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +125	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	4.0	7.8		V
Reverse Leakage Current	I_R	$V_{RWM}=3.3\text{V}$		5	200	nA
Holding Voltage	V_H	$I_H=50\text{mA}$	∞		∞	V
Clamping Voltage	V_C	$I_{PP}=6\text{A}, t_p=8/20\mu\text{s}$		5.5	6.5	V
Clamping Voltage	V_C	$I_{TLP}=4\text{A}, t_p=0.2/100\text{ns}$		5.8		V
Clamping Voltage	V_C	$I_{TLP}=16\text{A}, t_p=0.2/100\text{ns}$		9.4	11.8	V
ESD Dynamic Resistance	R_{DYN}	$TLP=0.2/100\text{ns}$		0.3	0.5	Ω
Junction Capacitance	C_J	Between I/O; $V_R=0\text{V}$; $f=1\text{MHz}$		0.22	0.32	pF

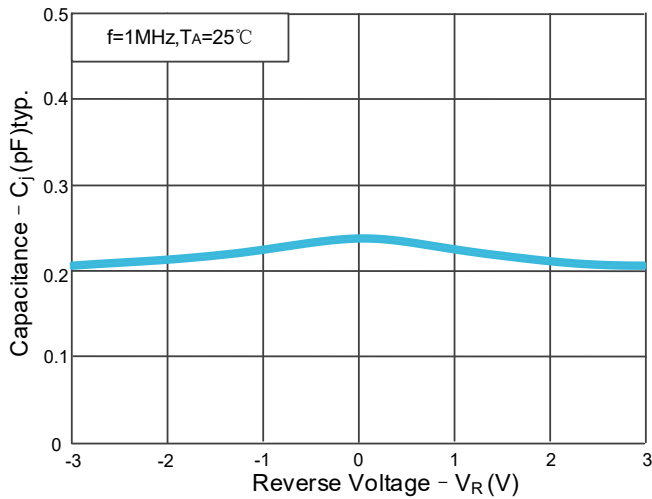


Electrical Parameters ($T_A = 25^\circ\text{C}$ unless otherwise noted)

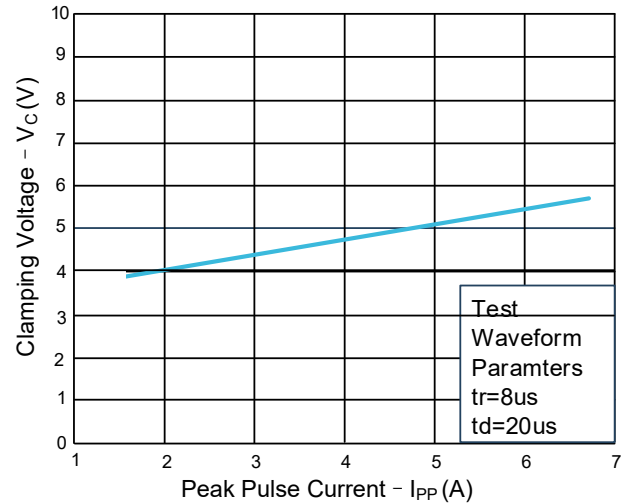


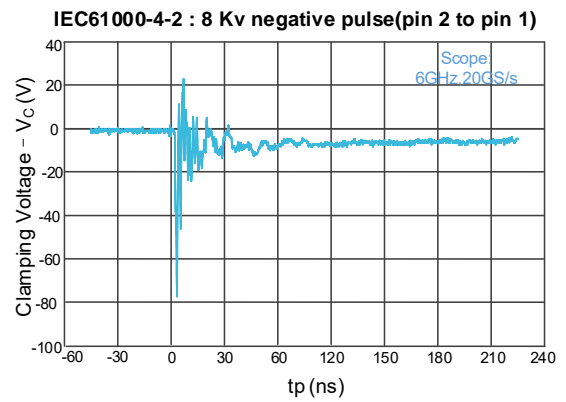
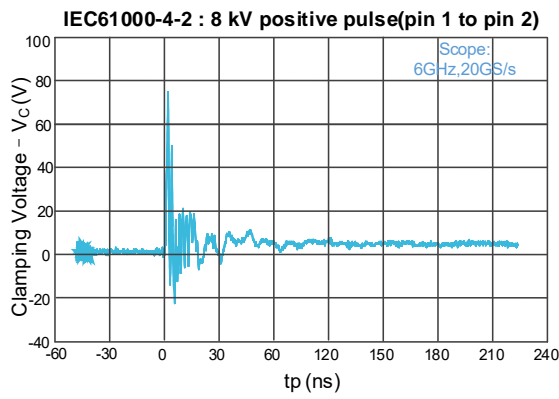
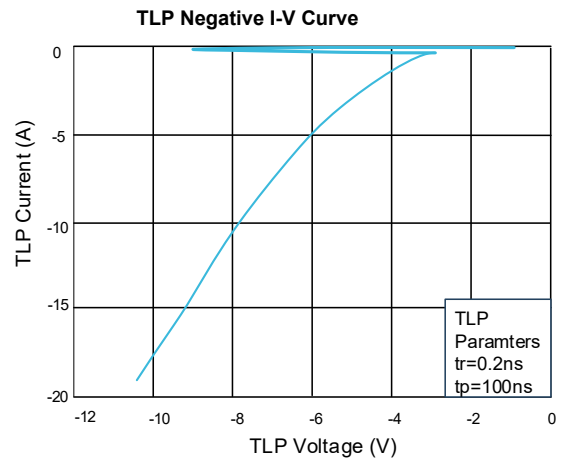
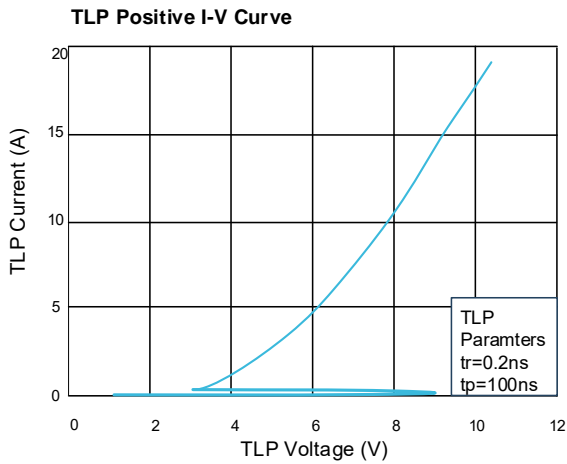
Typical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise Specified)

Capacitance vs. Reverse Voltage

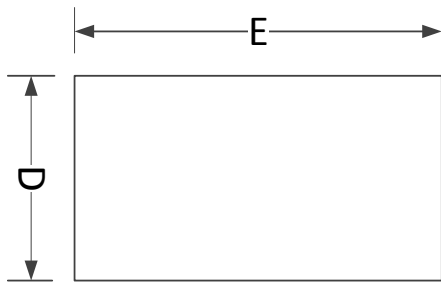


Reverse Clamping Voltage vs. Peak Pulse Current

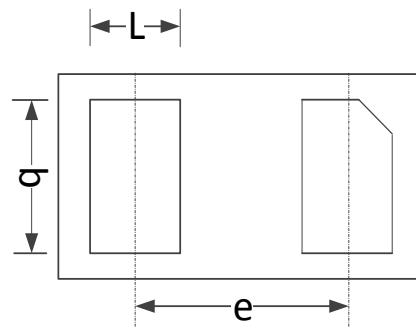




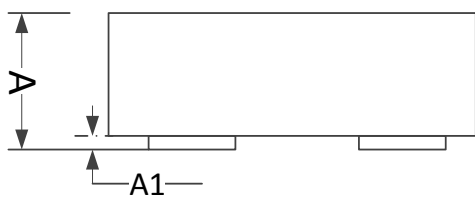
Outline Drawing – DFN0603



TOP VIEW



BOTTOM VIEW



SIDE VIEW

COMMON DIMENSION (MM)			
PKG	DFN0603		
REF.	MIN.	NOM.	MAX.
A	0.28	0.30	0.34
A1	0.00	0.02	0.05
b	0.21	0.23	0.265
L	0.14		0.24
e	0.40BSC		
D	0.25	0.30	0.35
E	0.55	0.60	0.65