

Features

- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- Working voltage: $V_{RWM} = 3.6\text{V}$
- Low leakage current
- Low clamping voltage
- RoHS compliant with Halogen-free

HF

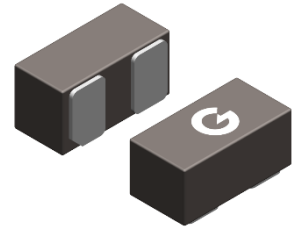


Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Electronics

Mechanical Data

- Case: DFN0603-2L
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



DFN0603-2L

Ordering Information

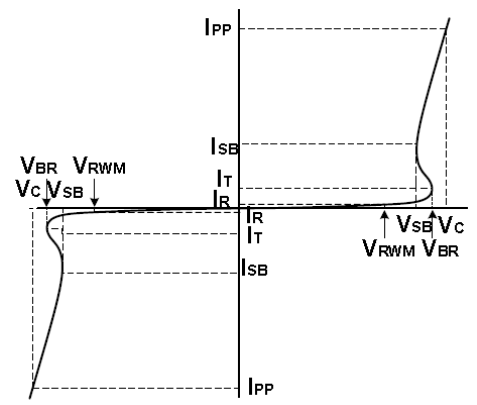
Part Number	Package	Shipping Quantity	Marking Code
ESDSSB3V6BLP3	DFN0603-2L	10000 pcs / Tape & Reel	3J

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	± 30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	± 30	kV
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	170	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	21	A
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Electrical Parameters

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
$V_{(BR)}$	Reverse Breakdown Voltage @ I_T
I_T	Test Current
V_{SB}	Snap-Back Voltage @ I_{SB}
I_{SB}	Snap-Back Current



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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Stand-off Voltage	V_{RWM}		-	-	3.6	V
Reverse Breakdown Voltage	$V_{(BR)}$	$I_T = 1\text{mA}$	3.7	4.3	5.5	V
Reverse Leakage Current	I_R	$V_{RWM} = 3.6\text{V}$	-	-	50	nA
Clamping Voltage	V_C	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$	-	5.5	6.5	V
		$I_{PP} = 10\text{A}, t_p = 8/20\mu\text{s}$	-	6.3	7.5	V
		$I_{PP} = 21\text{A}, t_p = 8/20\mu\text{s}$	-	8	9	V
		$I_{PP} = 16\text{A}, t_p = 10/100\text{ns(TLP)}$	-	6	-	V
Dynamic Resistance	R_{DYN}	TLP= 10/100ns	-	0.1	-	Ω
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHZ}$	-	30	40	pF

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

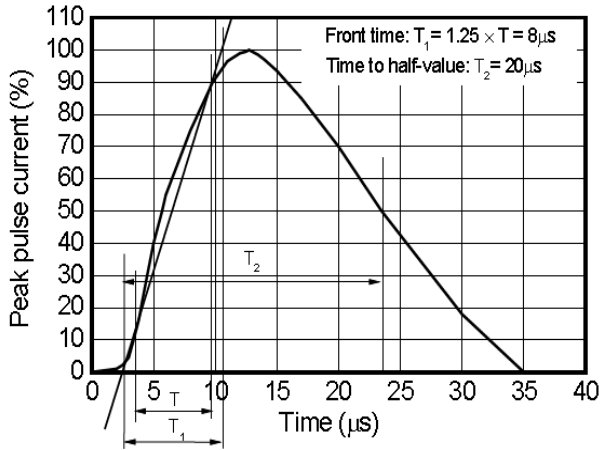


Fig 1 8/20 μs waveform per IEC61000-4-5

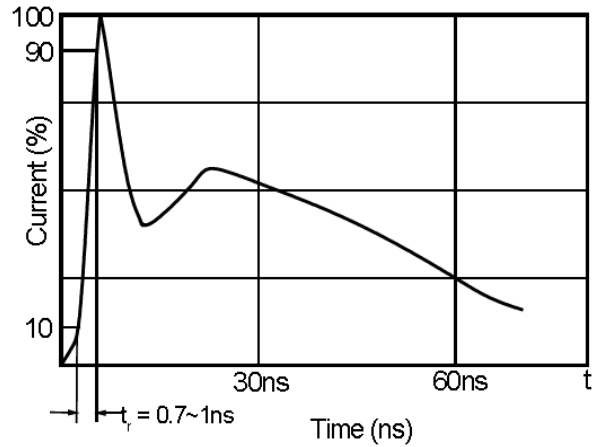


Fig 2 ESD pulse waveform according to IEC61000-4-2

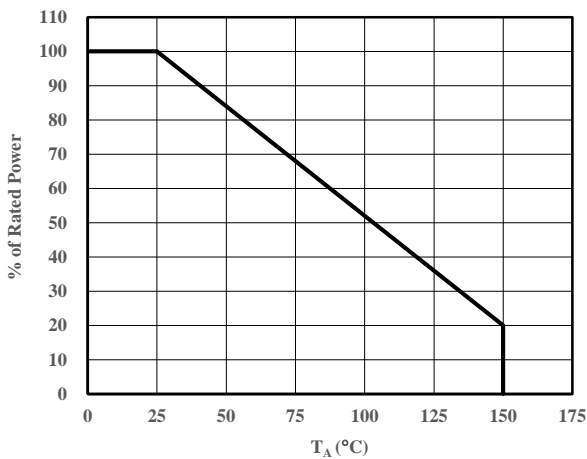


Fig 3 Power Derating Curve

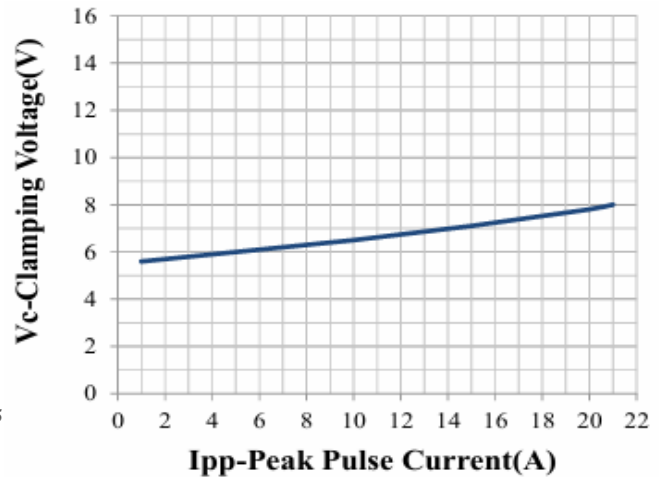


Fig 4 Clamping Voltage vs. Peak Pulse Current

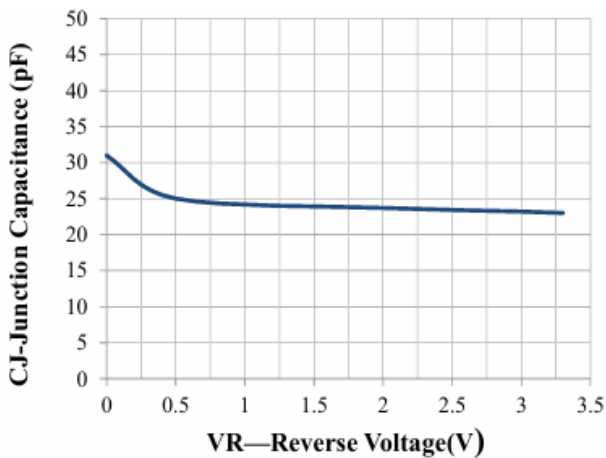


Fig 5 Capacitance vs. Reverse Voltage

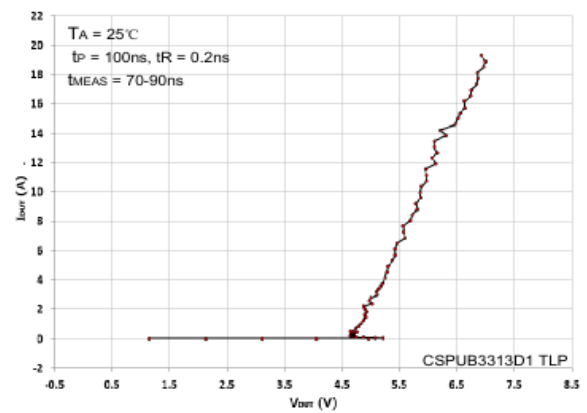
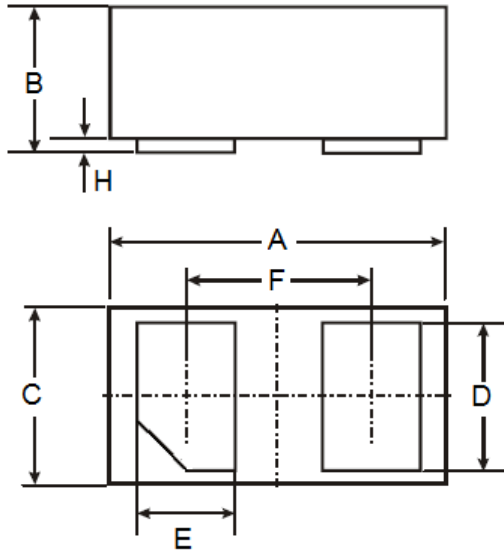


Fig 6 TLP Measurement

Package Outline Dimensions (Unit: mm)



DFN0603-2L			
Dimension	Min.	Typ.	Max.
A	0.595	0.620	0.645
B	0.270	0.300	0.350
C	0.295	0.320	0.345
D	0.190	0.240	0.290
E	0.140	0.190	0.240
F	-	0.355	-
H	0	0.020	0.030

Mounting Pad Layout (Unit: mm)

DFN0603-2L

