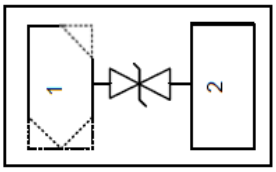
1-Line, Bi-directional, Transient Voltage Suppressor





DFN0603-2L

Features

- Ultra small package
- Stand-off voltage: 5 V Max
- Transient protection for each line according to
IEC61000-4-2(ESD): ±10kV (contact)
IEC61000-4-5(surge): 4.5A (8/20μs)
- Ultra-low capacitance: CJ = 0.25 pF typ
- Low leakage current
- Low clamping voltage
- RoHS Compliant

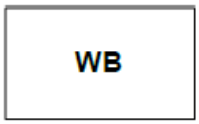
Applications

- Near Field Communication (NFC) lines
- RF signal lines
- FM Antenna

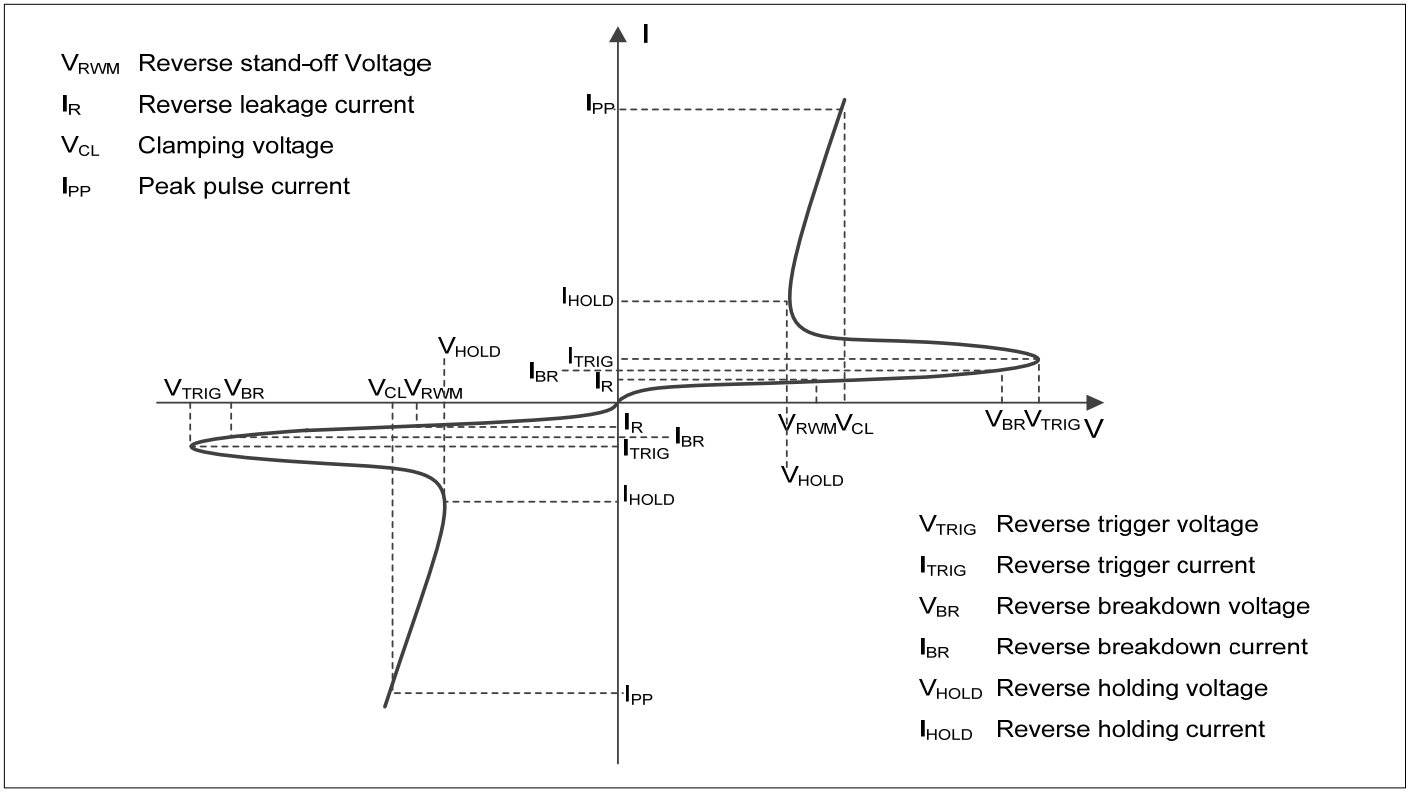
Caution:
This Device is designed for signal line protection only.
Do not operate under electrical bias or connect to a po
wer line.

Mechanical Characteristics

- Package: DFN0603-2L
- Case Material: “Green” Molding Compound.
- Marking Information: See Below



■Definitions of electrical characteristics



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

PARAMETER	SYMBOL	Rating	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	31.5	W
Peak pulse current (t_p = 8/20μs)	I_{PP}	4.5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±10	KV
ESD according to IEC61000-4-2 contact discharge		±10	KV
Junction temperature	T_J	-55~125	°C
Storage temperature	T_{STG}	-55~150	°C

■Electrical Characteristics (T_a=25℃ Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				5
Reverse breakdown voltage	V_{BR}	V	I_{BR} = 1mA	6		
Reverse leakage current	I_R	μA	V_{RWM} =5V			0.5
Clamping voltage [3)]	V_{CL}	V	I_{PP} = 4.5A, t_p = 8/20μs		5	7
Junction capacitance	C_J	pF	V_R = 0V, f = 1MHz		0.25	

(1). TLP parameter: Z_0 = 50Ω, t_p = 100ns, t_r = 2ns, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.
(2). Contact discharge mode, according to IEC61000-4-2.
(3). Non-repetitive current pulse, according to IEC61000-4-5.

■Ordering Information (Example)

PREFERED P/N	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SESDULC5V0LZB1	Approximate 0.9	10000	40000	400000	Tae& reel

■ Typical Performance Characteristics (Ta=25℃ unless otherwise Specified)

Fig1. 8/20μs waveform per IEC61000-4-5

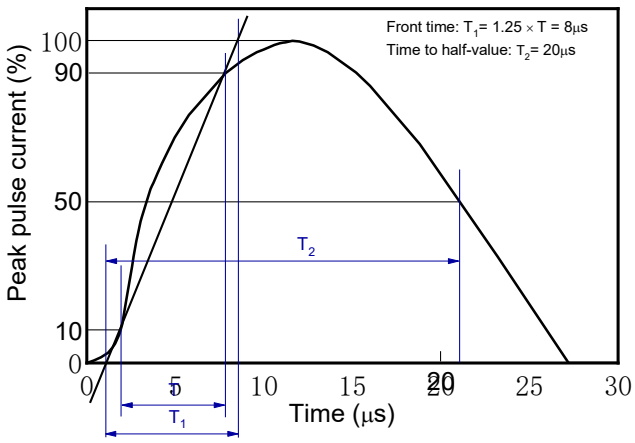


Fig2. Contact discharge current waveform per IEC61000-4-2

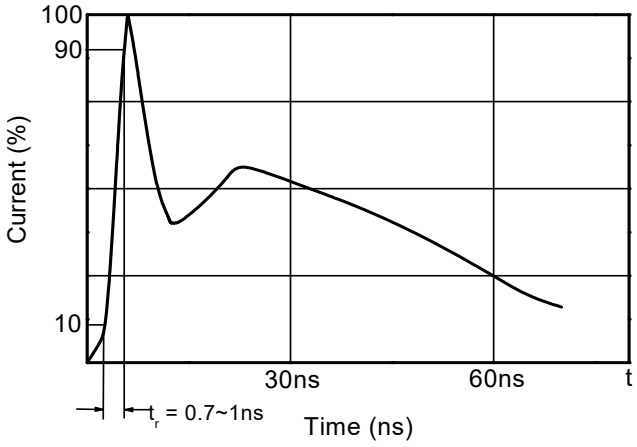


Fig3. Clamping voltage vs. Peak pulse current

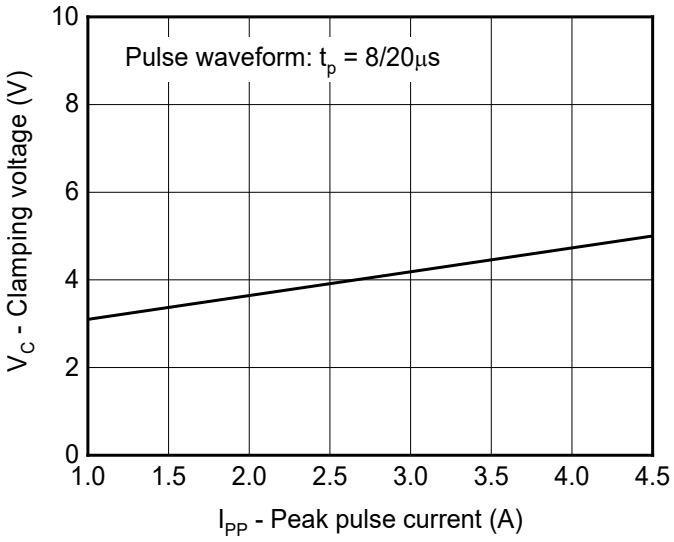


Fig4. Capacitance vs. Reverse voltage

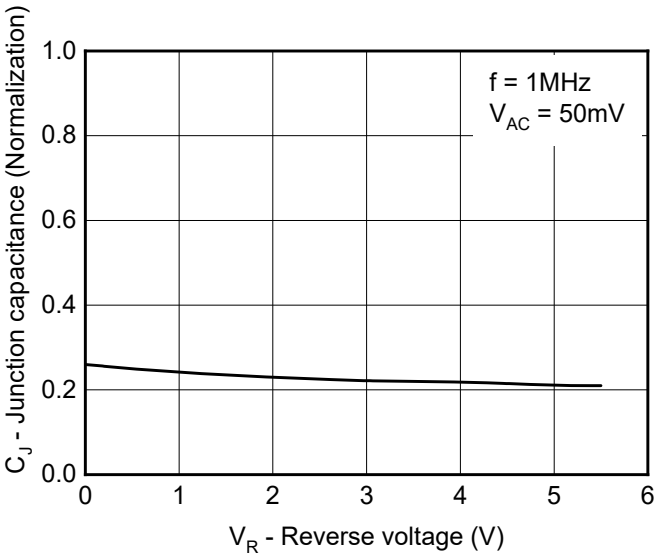


Fig5. Non-repetitive peak pulse power vs. Pulse time

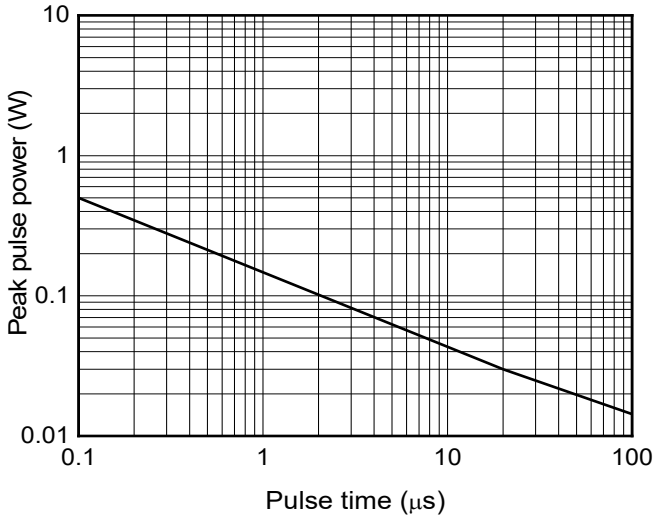


Fig6. Power derating vs. Ambient temperature

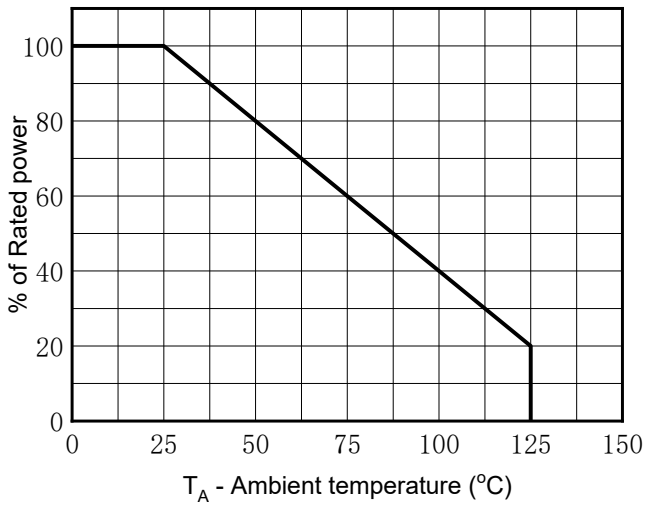
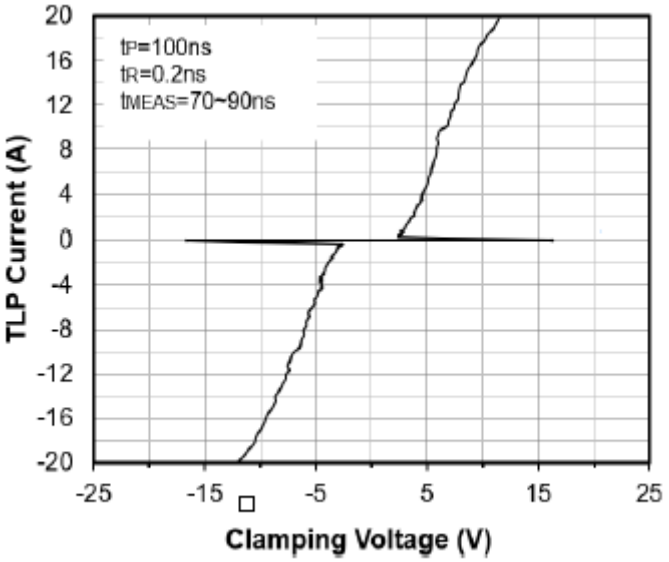
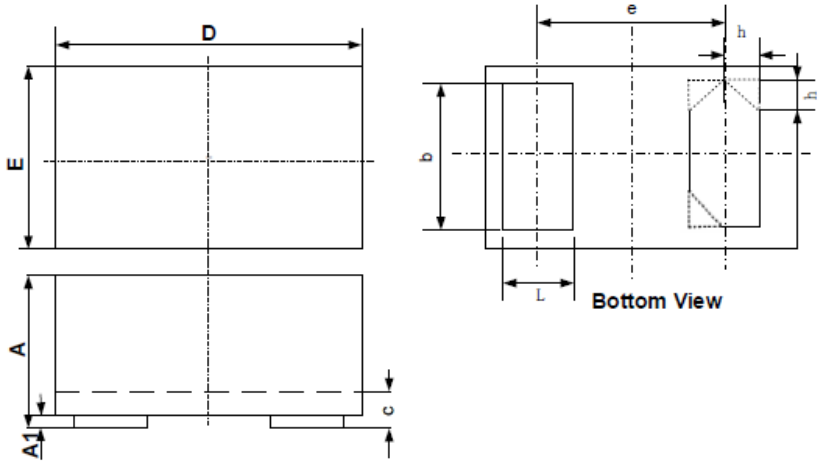


Fig7. TLP Measurement

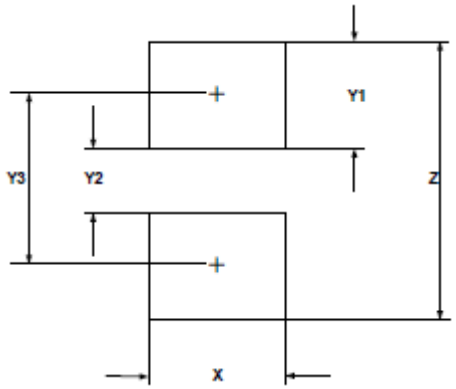


■ Outline Dimensions



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.230		0.340
A1	0.000	-	0.050
b	0.200	-	0.300
c	0.050	-	0.180
D	0.550	-	0.650
e	0.360 BSC		
E	0.250	-	0.350
L	0.130	-	0.240
h	0.079 BSC		

■ Recommend land pattern (Unit:mm)



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

Notes:
This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met

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