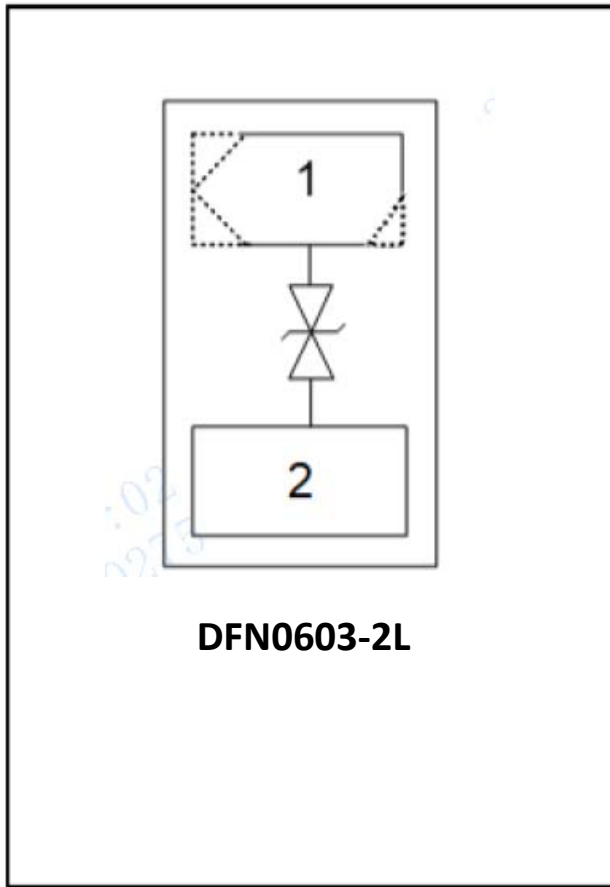


1- Line, Bi-directional, Ultra-low Capacitance, Transient Voltage Suppressor



Features

- Stand-off voltage: $\pm 12V$ Max
- Transient protection for each line according to
IEC61000-4-2(ESD): $\pm 10kV$ (contact)
IEC61000-4-2(ESD): $\pm 10kV$ (Air)
IEC61000-4-5(surge): 4.5A (8/20 μs)
- Low leakage current
- Ultra-low capacitance: $C_j = 0.25pF$ typ.
- Low clamping voltage:
- RoHS Compliant

Applications

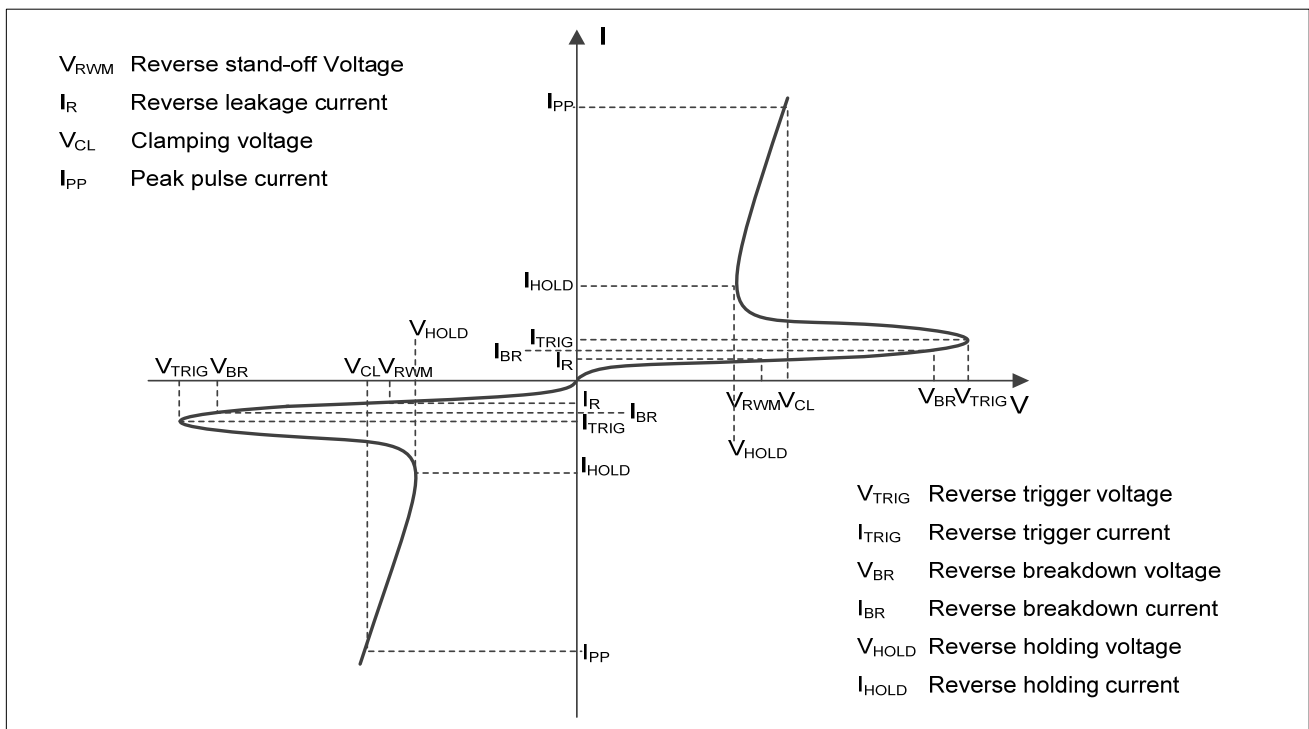
- Near Field Communication (NFC) lines
- RF signal lines
- FM Antenna

Mechanical Data

- Package: DFN0603-2L
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram Below
- Marking Information: See Below

WB

■Definitions of electrical characteristics





SESDULC12VLZB

■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	31.5	W
Peak pulse current ($t_p = 8/20\mu s$)	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	
Junction temperature	T_J	-55~125	$^{\circ}C$
Storage temperature	T_{STG}	-55~150	$^{\circ}C$

■Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				12
Reverse leakage current	I_R	μA	$V_{RWM} = 5V$			0.5
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	13		
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 4.5A, t_p = 8/20\mu s$		5	7
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 4A, t_p = 0.2/100ns$		4.6	
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 16A, t_p = 0.2/100ns$		9.2	
Junction capacitance	C_J	pF	$V_R = 0V, f = 1MHz$		0.25	

(1) Transmission Line Pulse Test (TLP) Settings: $t_p = 100ns$, $t_r = 0.2ns$.

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SESDULC12VLZB	F1	Approximate 0.18	10000	100000	400000	7" reel



■ Characteristics (Typical)

Fig.1 8/20 μ s waveform per IEC61000-4-5

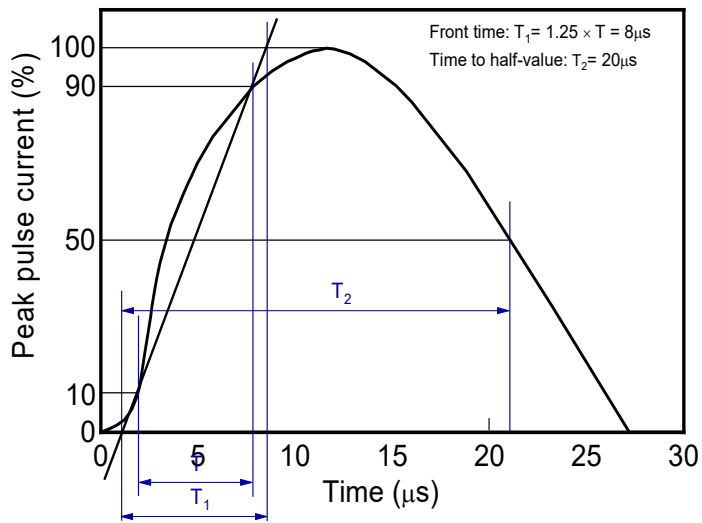


Fig.2 Contact discharge current waveform per IEC61000-4-2

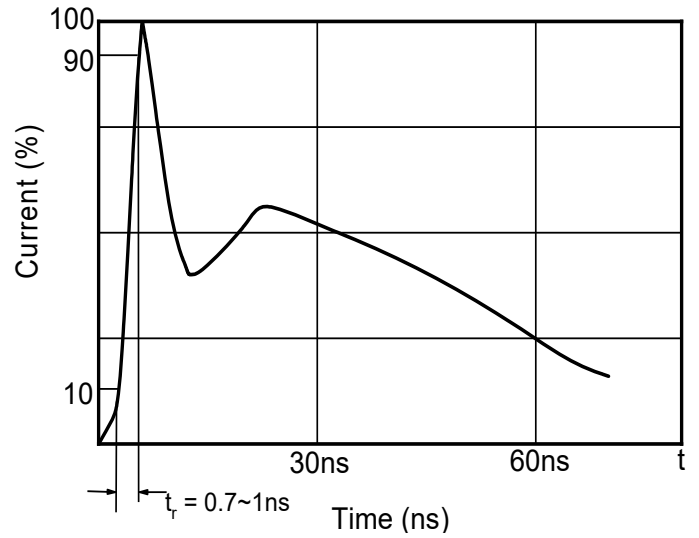


Fig.3 Clamping voltage vs. Peak pulse current

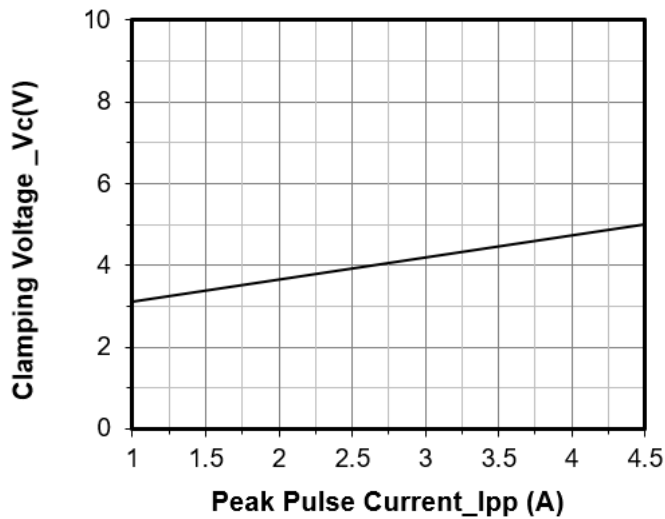


Fig.4 Capacitance vs. Reverse voltage

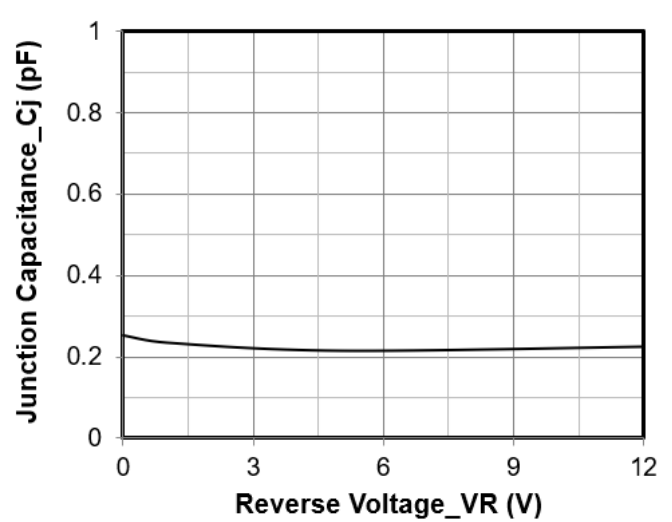


Fig.5 Non-repetitive peak pulse power vs. Pulse time

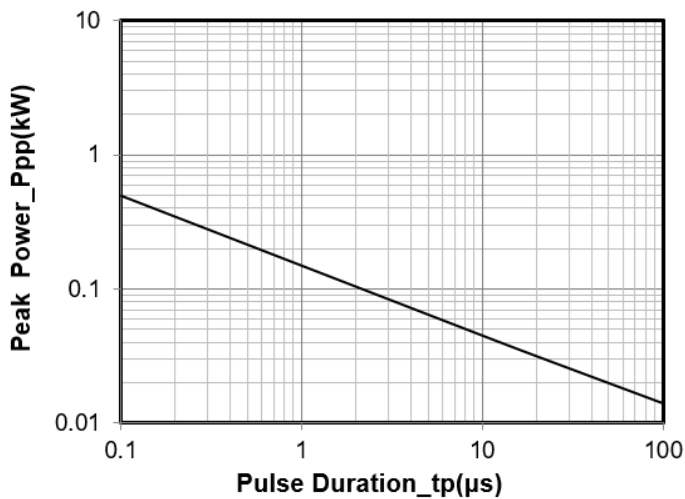


Fig.6 Power derating vs. Ambient temperature

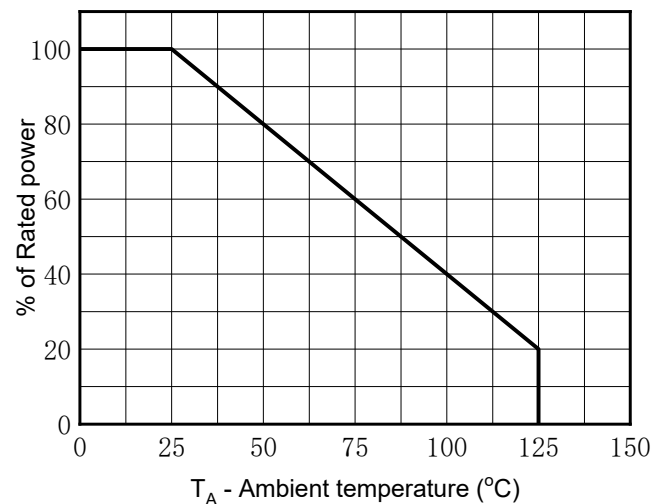




Fig.7 ESD clamping

(8kV contact discharge per IEC61000-4-2)

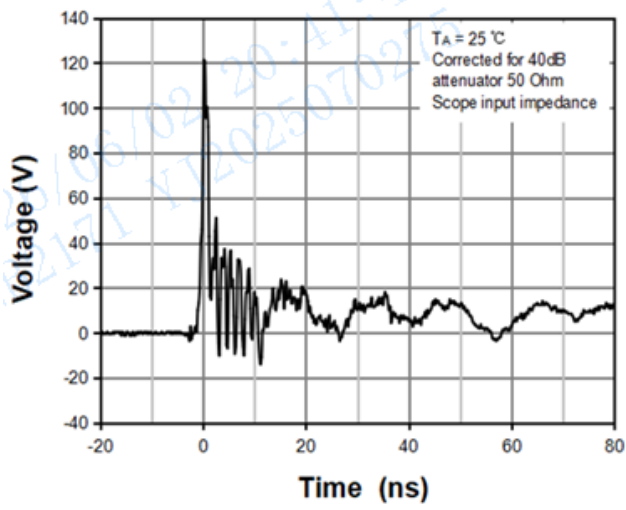
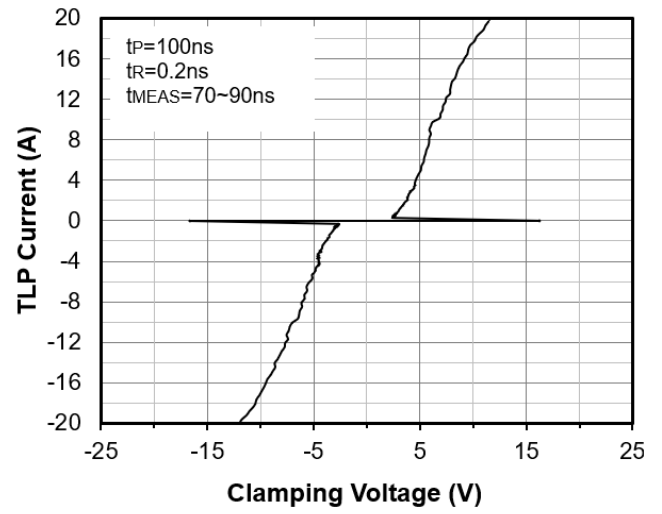


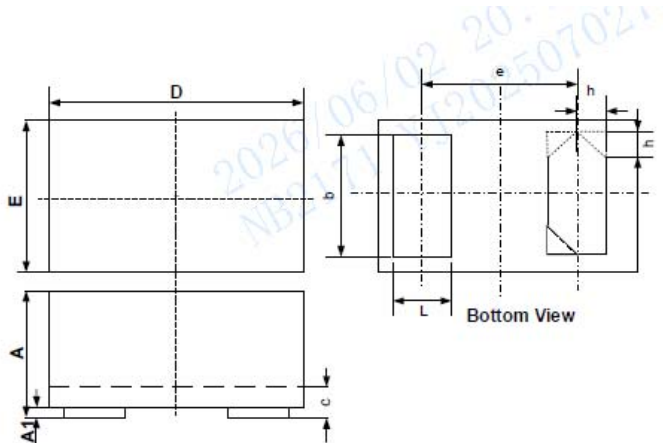
Fig.8 TLP Measurement





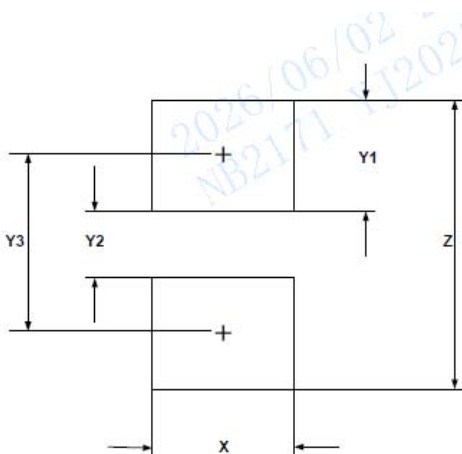
SESDULC12VLZB

■ 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		

■ Recommended PCB Layout



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



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