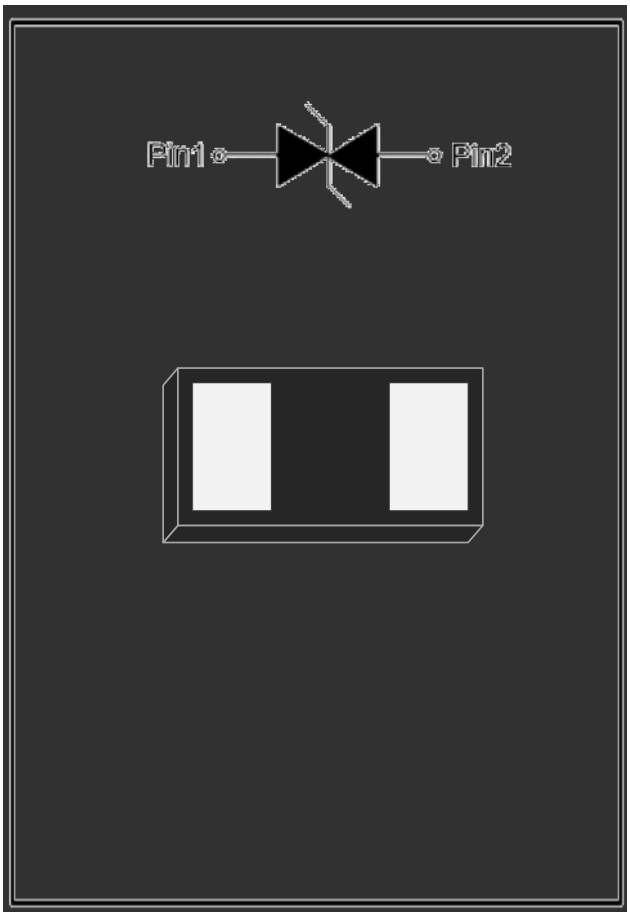
1-Line, Bi-directional, Transient Voltage Suppressor



Features

- Stand-off voltage: ± 5.5V Max
- Transient protection for each line according to
  IEC61000-4-2(ESD): ±30kV (contact)
  IEC61000-4-4 (EFT): 40A (5/50ns)
  IEC61000-4-5(surge): 10A (8/20μs)
- Low leakage current
- Ultra-low c
- Low clamping voltage:

VCL =8.6V typ. @ IPP = 16A (TLP)

- RoHS Compliant
- Solid-state silicon technology

Applications

- Cellular handsets
- Tablets
- Laptops
- Other portable devices
- Network communication devices

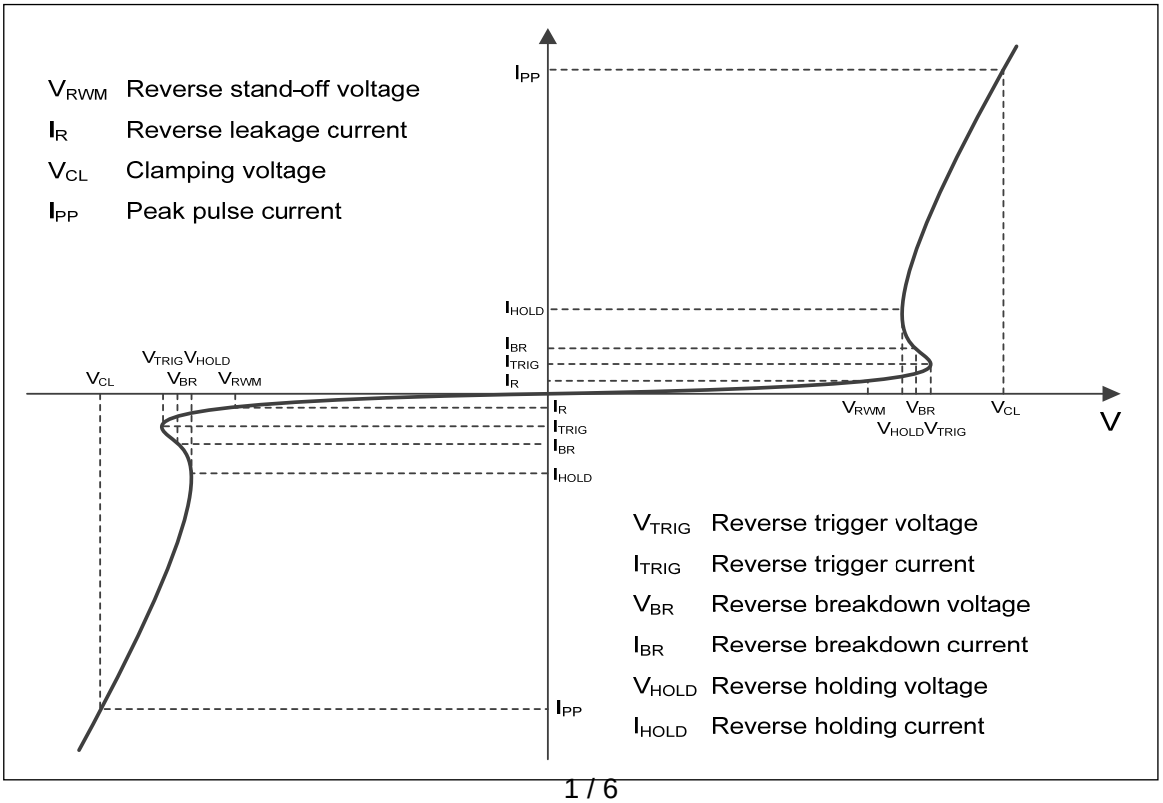
Mechanical Data

- Package: DFN0603-2L
- Case Material: “Green” Molding Compound
- Moisture Sensitivity: Level 3 per J-STD-020
- Marking Information: See Below

.



■Definitions of electrical characteristics



■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	140	W
Peak pulse current (t_p = 8/20μs)	I_{PP}	10	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±30	kV
ESD according to IEC61000-4-2 contact discharge		±30	
Junction temperature	T_J	-45~125	°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				± 5.5
Reverse leakage current	I_R	uA	V_{RWM} = 5.5V			0.1
Reverse breakdown voltage	V_{BR}	V	I_{BR} = 1mA	6.8	7.3	
Clamping voltage 1)	V_{CL}	V	I_{PP} = 16A, t_p = 100ns(TLP)			
Dynamic resistance 1)	R_{DYN}	Ω				
		V				
Clamping voltage 1)	V_{CL}	V				
Clamping voltage 1)	V_{CL}	V				
Junction capacitance	C_J	pF				
Junction capacitance	C_J	pF				

Notes:
TLP parameter: Z0 = 50Ω, tp = 100ns, tr = 2ns, averaging window from 60ns to 80ns. RDYN is calculated from 4A to 16A.
Contact discharge mode, according to IEC61000-4-2.
Non-repetitive current pulse, according to IEC61000-4-5.

■Ordering Information (Example)

PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX

■ Characteristics (Typical)

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

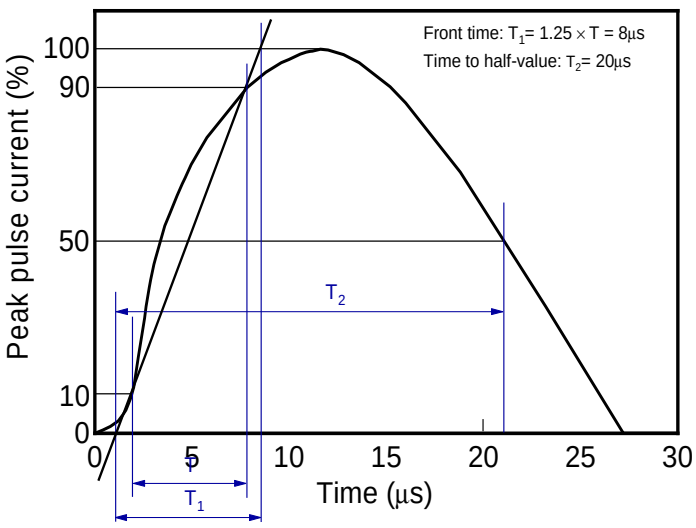


Fig.2 Contact discharge current waveform per IEC61000-4-2

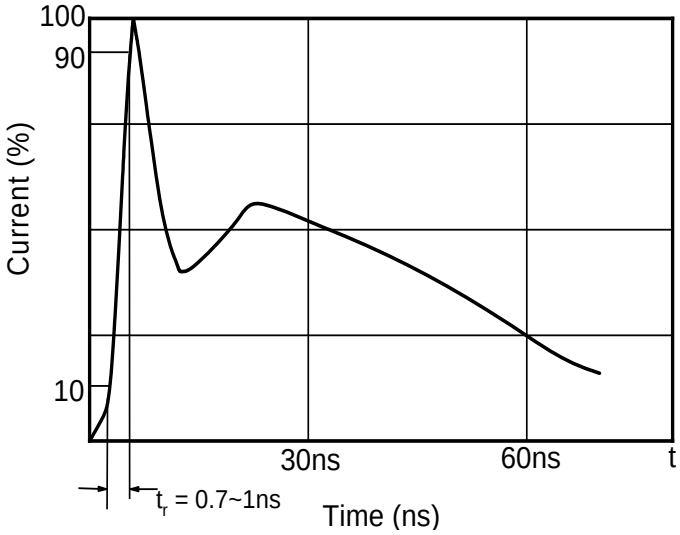


Fig.3 Clamping voltage vs. Peak pulse current

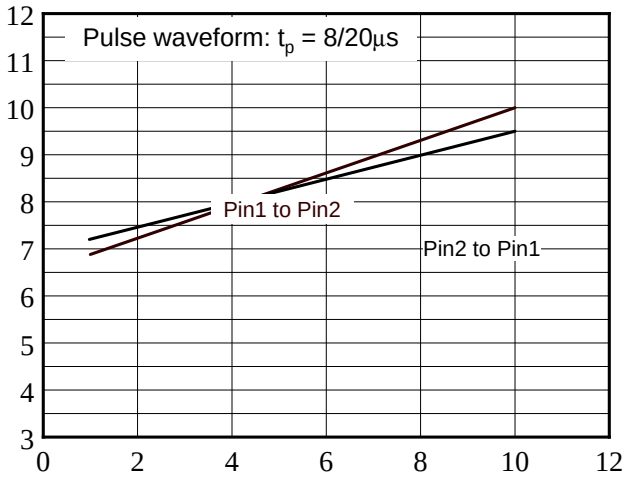


Fig.6 Power derating vs. Ambient temperature

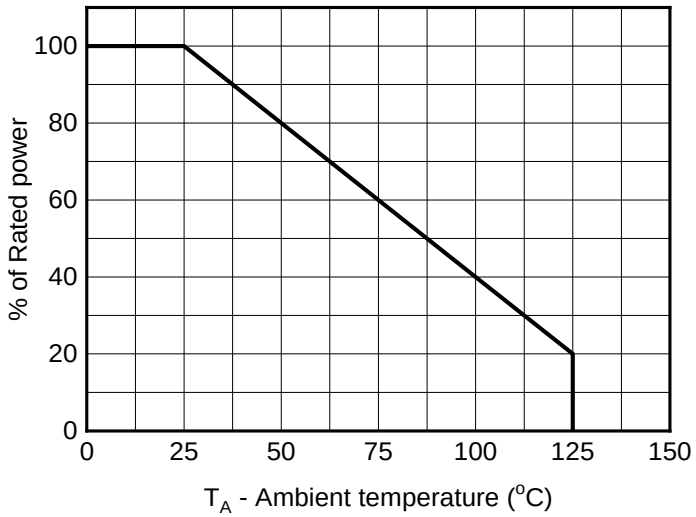
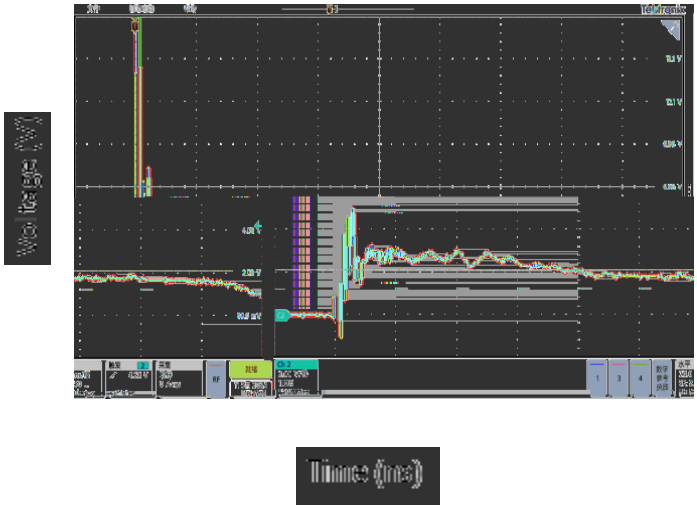
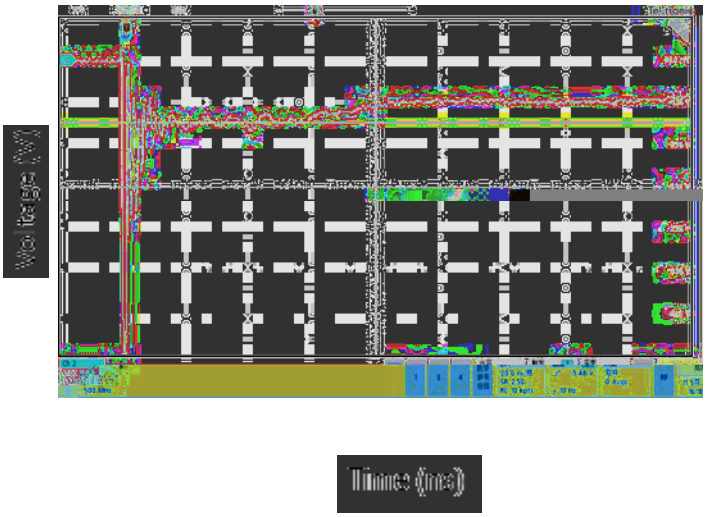


Fig.7 ESD clamping



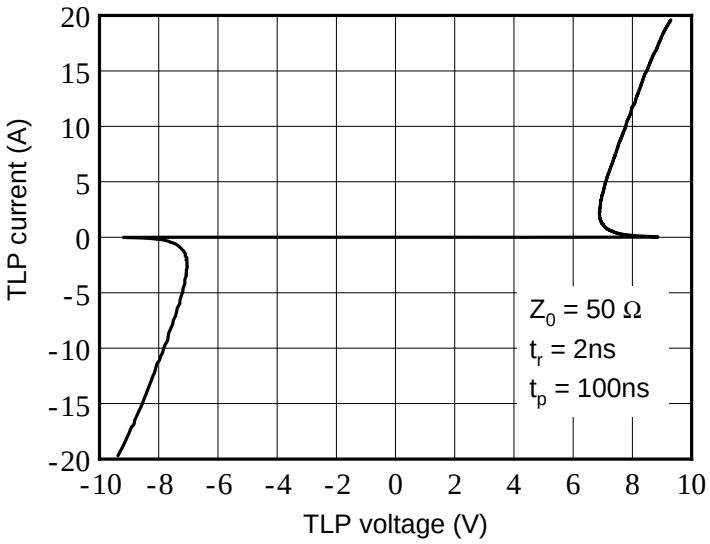
(+8kV contact discharge per IEC61000-4-2)

Fig.8 ESD clamping

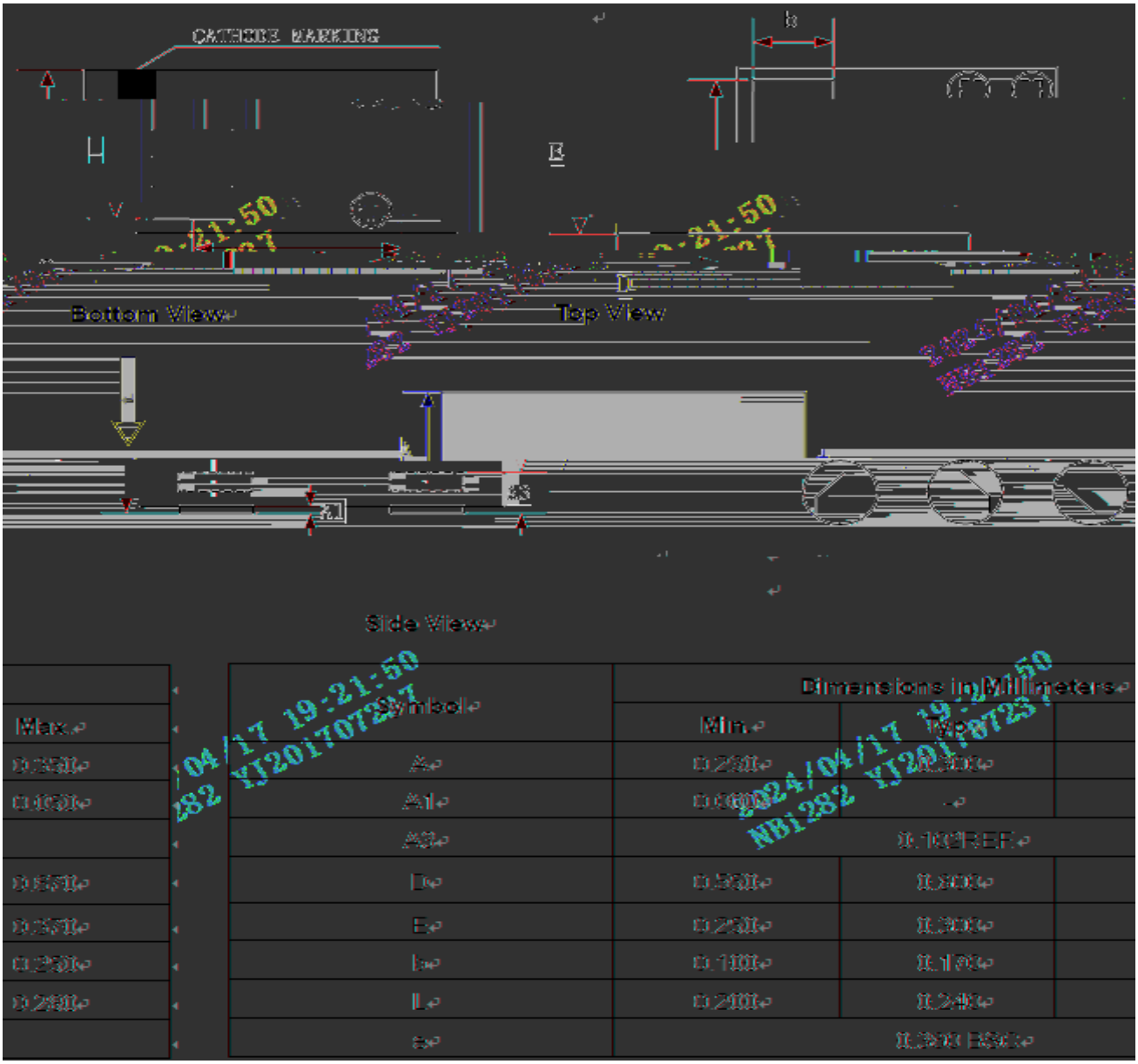


(-8kV contact discharge per IEC61000-4-2)

Fig.9 TLP Measurment

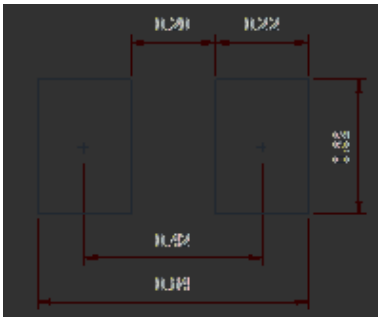


■ Outline Dimensions



Dimensions in Millimeters			
Symbol	Min.	Typ.	Max.
A	0.250	0.300	0.350
A1	0.000	-	0.050
A2	0.100REF.		
D	0.950	1.000	1.050
E	0.750	0.800	0.850
b	0.100	0.150	0.200
L	0.200	0.240	0.300
e	0.500 BSC.		

■ Recommended PCB Layout



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