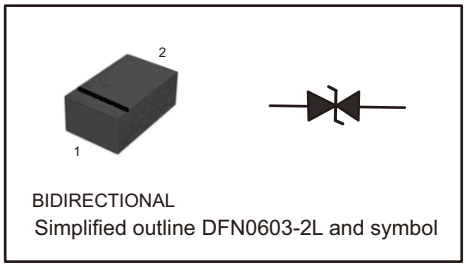
Transient Voltage Suppressors for ESD Protection



BIDIRECTIONAL
Simplified outline DFN0603-2L and symbol

FEATURES

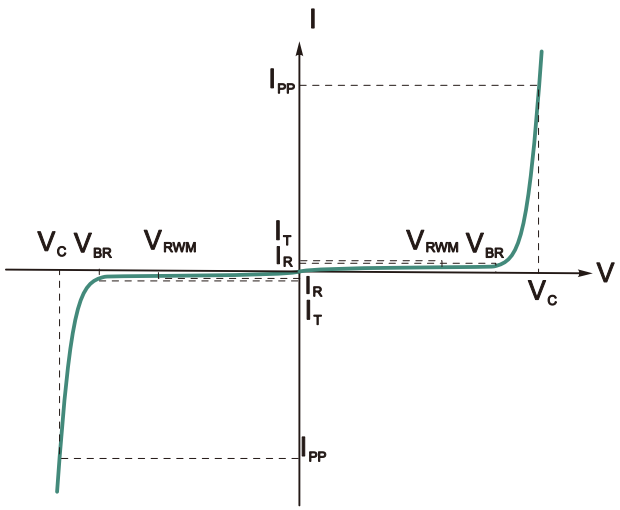
- Stand-o ffvoltage: ±5.5V Max.
- Transient protection for each line according to
  IEC61000-4-2(ESD): ±30kV (contact)
  IEC61000-4-4 (EFT): 40A (5/50ns)
- Ultra-low capacitance: CJ = 10pF typ.
- Low leakage current

Applications

- Computers and peripherals;
- Audio and video equipment;
- Communication systems;
- Portable electronics.

Electronics Parameter

Parameter	Symbol
Maximum Reverse Peak Pulse Current	I_{PP}
Clamping Voltage @ I_{PP}	V_C
Peak Reverse Working Voltage	V_{RWM}
Reverse Leakage Current @ V_{RWM}	I_R
Breakdown Viltage @ I_T	V_{BR}
Test Current	I_T



MAXIMUM RATINGS (Ta =25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μS)	Ppk	72	W
Peak Pulse Current	Ipp	6	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	KV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55~ +125	°C
Storage Temperature Range	Tstg	-55~ +150	°C

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand-offvoltage	VRWM				5.5	V
Breakdown Voltage	VBR	IT=1mA	6.1	7		V
Reverse Leakage Current	IR	V=VRWM , Ta=25°C			0.1	uA
Clamping Voltage	VC	IPP=1A , tp=8/20us			8	V
		IPP=6A , tp=8/20us			12	V
Junction Capacitance	Cj	VR=0V , f=1HMz		10	13	pF
		VR=2.5V , f=1HMz		8	11	pF

Fig.1 Pulse Waveform

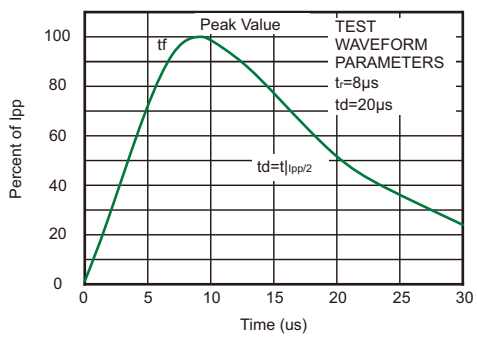
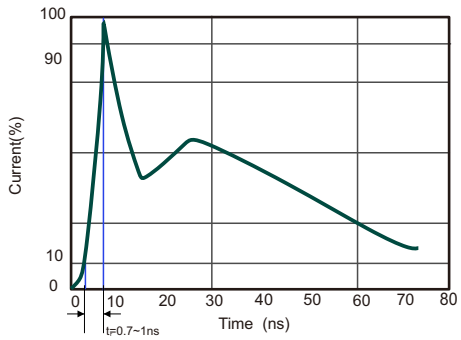
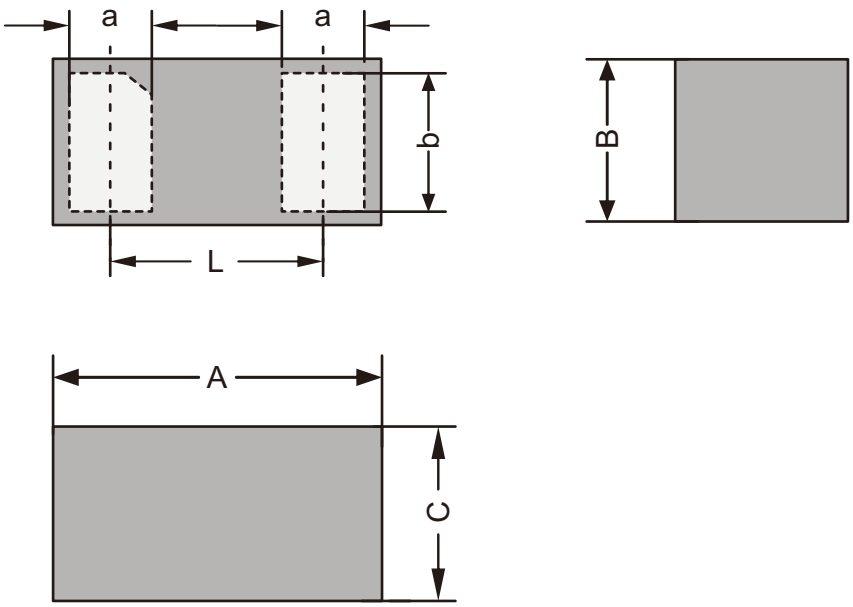


Fig.2 Contact discharge current waveform per IEC61000-4-2



DFN0603-2L Package Outline Dimensions



DFN0603-2L mechanical data

UNIT		A	B	C	a	b	L
mm	max	0.65	0.35	0.34	0.19	0.26	0.36
	min	0.58	0.28	0.28	0.13	0.20	
mil	max	25.59	13.78	13.39	7.48	10.24	14.17
	min	22.83	11.02	11.02	5.12	7.87	

Marking

Type number	Marking code
ESDB5V5DSA	A6

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