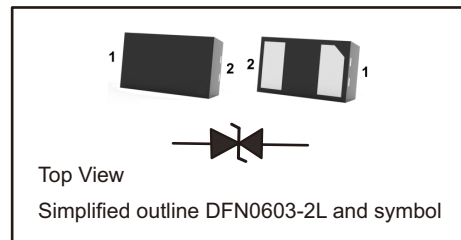


Transient Voltage Suppressors for ESD Protection

General Description

The ESDBULC5V0DSL2A is designed to protect voltage sensitive components that require ultra-low capacitance from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its low capacitance, it is suited for use in high frequency designs such as USB 2.0 high speed and antenna line applications



FEATURES

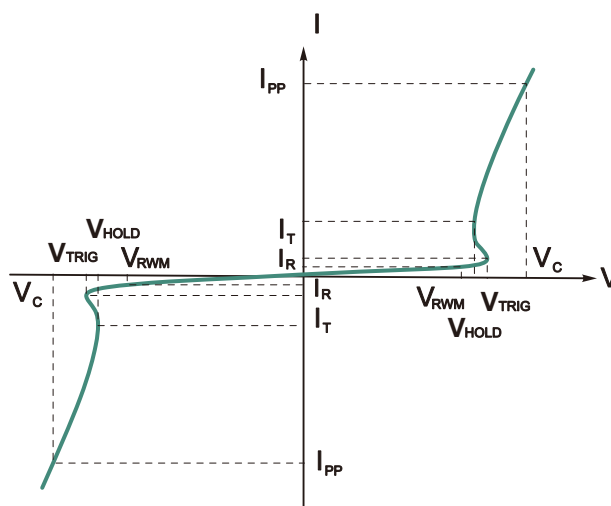
- Stand-off voltage: 5V Max.
- Transient protection for each line according to
 IEC61000-4-2(ESD): $\pm 11\text{kV}$ (contact) $\pm 11\text{kV}$ (air)
 IEC61000-4-5(Lightning): 5A (8/20 μs)
- Ultra-low capacitance: $C_j = 0.17\text{pF}$ typ.
- Low leakage current

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 Voltage @ I_T	V_{BR}
Test Current	I_T
Forward Current	I_F
Forward Voltage @ I_F	V_F





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

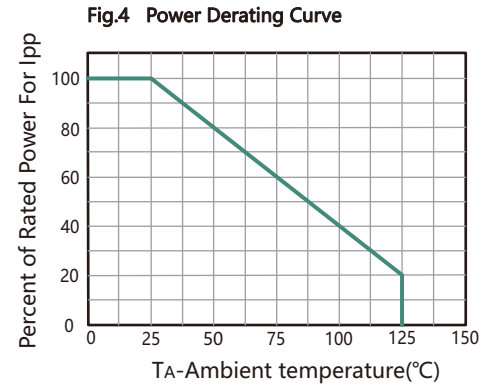
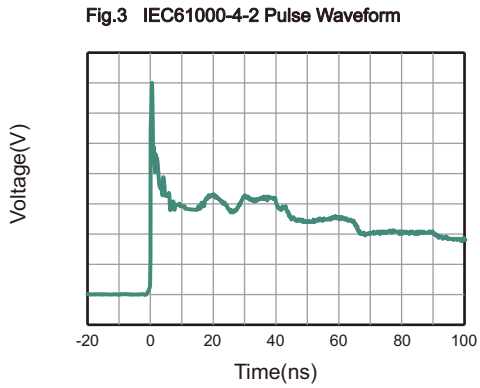
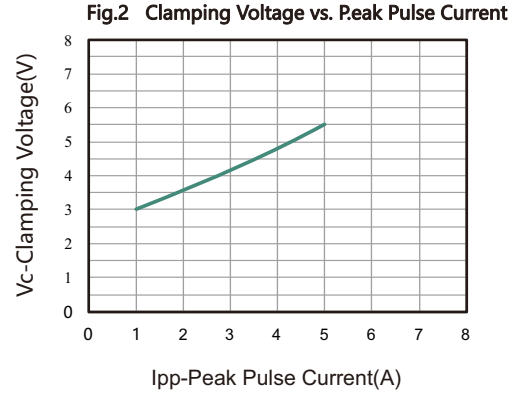
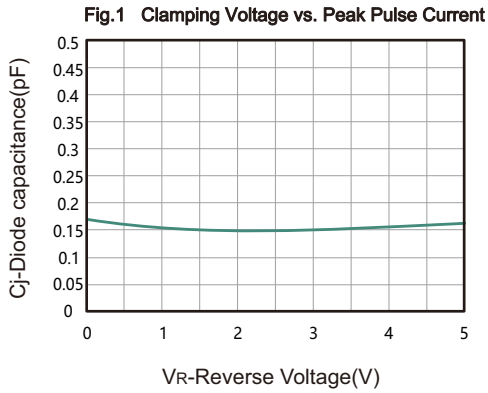
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μS)	Ppk	35	W
Peak Pulse Current	Ipp	5	A
ESD per IEC 61000-4-2(Air)	VESD	±11	KV
ESD per IEC 61000-4-2(Contact)		±11	
Operating Temperature Range	TJ	-40~+125	°C
Storage Temperature Range	Tstg	-55~+150	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse Stand-off Voltage	VRWM				5	V
Breakdown Voltage	VBR	IT=1mA	6.5			V
Holding Voltage	Vh	IT=30mA	1.5	2.1		V
Reverse Leakage Current	IR	V=VRWM, Ta=25°C			0.2	μA
Clamping Voltage	VC	IPP=1A, tp=8/20μs		3		V
		IPP=5A, tp=8/20μs		5.5	8	
Junction Capacitance	Cj	VR=0V, f=1MHz		0.17	0.25	pF

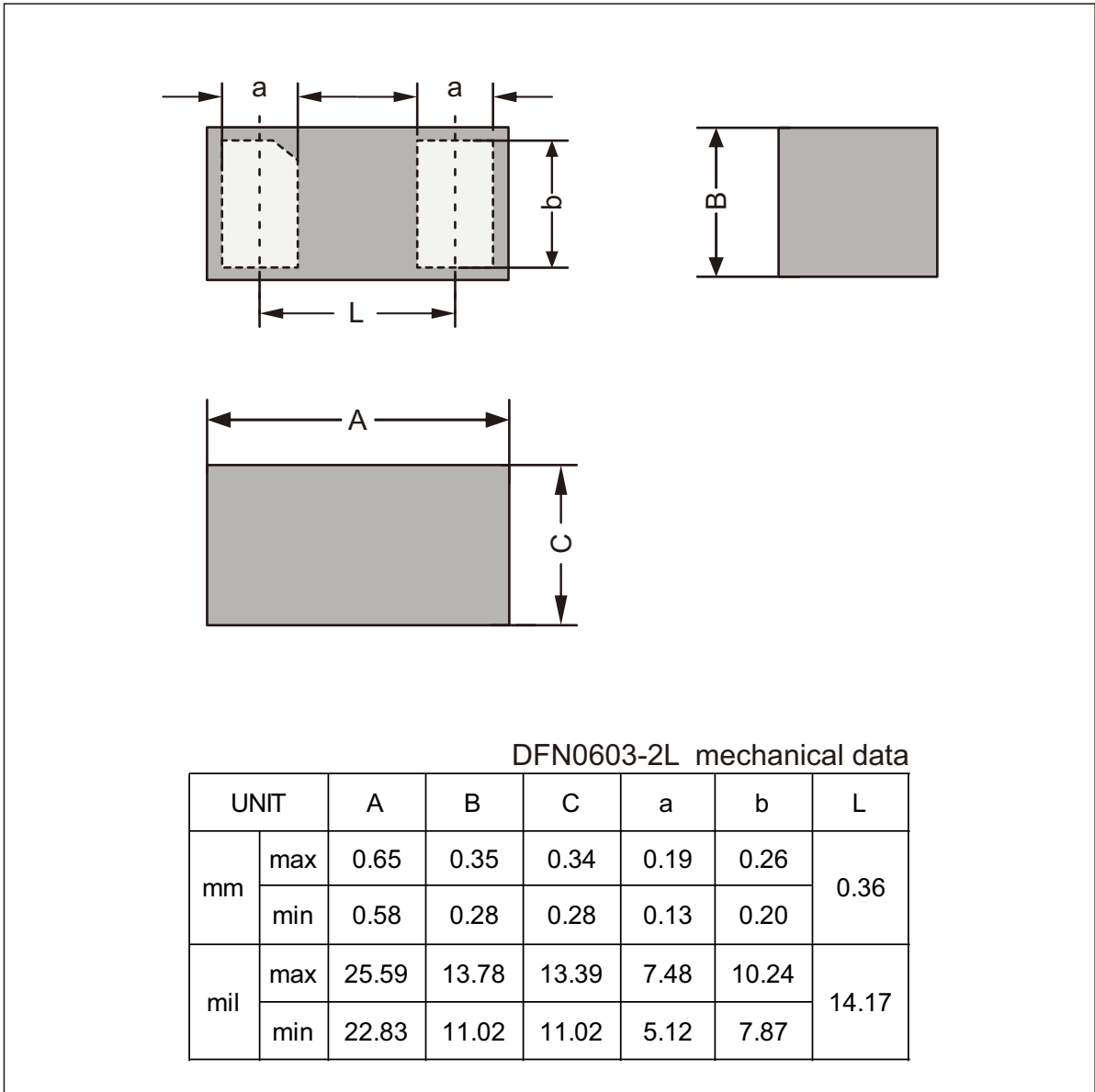


Typical Characteristics

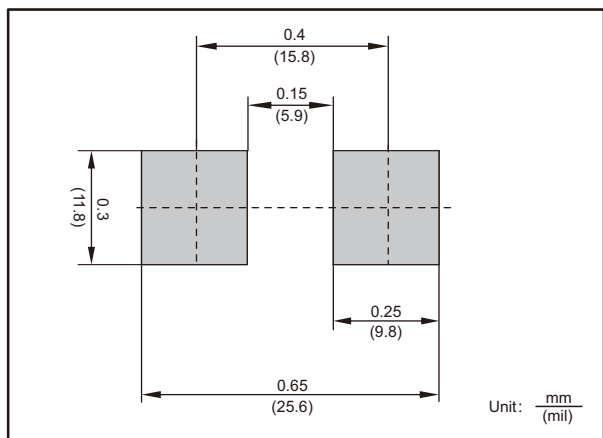




DFN0603-2L Package Outline Dimensions



The recommended mounting pad size



Marking

Type number	Marking code
ESDBULC5V0DSL2A	9S



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