Elektronische Bauelemente

SUESDL5VC-C

100W, 5V

Ultra Low Capacitance ESD Protection Diode (Bi-Direction)

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

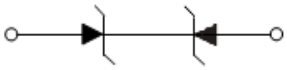
DESCRIPTION

SUESDL5VC-C is a low-capacitance Transient Voltage Suppressor (TVS) designed to provide electrostatic discharge (ESD) protection for high-speed data interfaces. With typical capacitance of 0.25pF, it is designed to protect parasitic-sensitive systems against over-voltage and over current transient events. It complies with IEC 61000-4-2 (ESD)Level 4, very fast charged device model (CDM) ESD and cable discharge event (CDE), etc.

It uses ultra-small DFNWB0603B package. Each device can protect one high-speed data line. It offers system designers flexibility to protect single data line where space is a premium concern.

The combined features of low capacitance, ultra-small size and high ESD robustness make SUESDL5VC-C ideal for high-speed data port and high-frequency line applications, such as cellular phones and HD visual devices.

DFNWB0603B



FEATURES

- Transient Protection for High-Speed Data Line
- Protects One I/O Line
- Low Leakage Current & Clamping Voltage
- Low Capacitance

MARKING

5BU

PACKAGE INFORMATION

Package	MPQ	Leader Size
DFNWB0603B	15K	7 inch

RDER INFORMATION

Part Number	Type
SUESDL5VC-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted.)

Parameter		Symbol	Rating	Unit
IEC 61000-4-2 ESD Voltage	Air	V_{ESD}	±20	kV
	Contact		±20	
Peak Pulsed Power		P_{PP}	100	W
Operating Junction Temperature Range		T_J	-55~125	℃
Storage Temperature Range		T_{STG}	-55~150	

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ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted.)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Stand-off Voltage	V_{RWM}	-	-	5	V	
Breakdown Voltage	$V_{(BR)}$	6	-		V	I_T=1mA
Reverse Leakage Current	I_R	-	-	100	nA	V_{RWM}=5V
Clamping Voltage @tp=8/20μs	V_C	-	-	13	V	I_{PP}=1A
		-	-	25		I_{PP}=4A
Junction Capacitance	C_J	-	0.25	-	pF	V_R=0V, f=1MHz

CHARACTERISTICS CURVES

Fig 1 Power Derating Curve

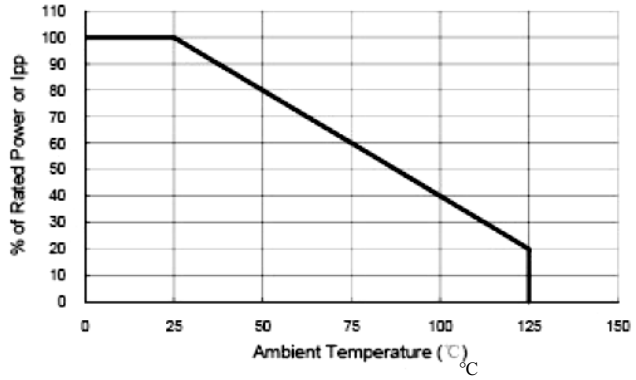


Fig 2 Clamping Voltage vs Peak Pulse Current

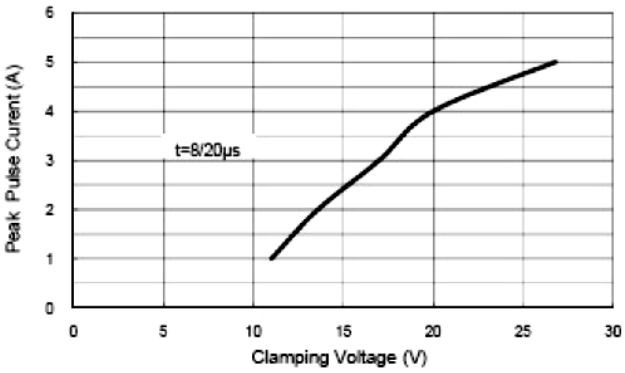


Fig 3 Voltage Sweeping

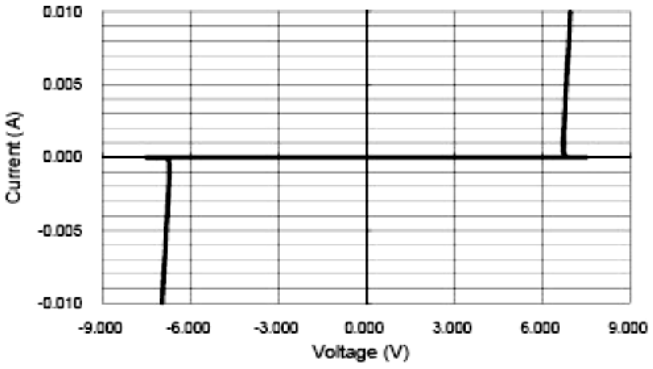


Fig 4 Voltage vs Capacitance

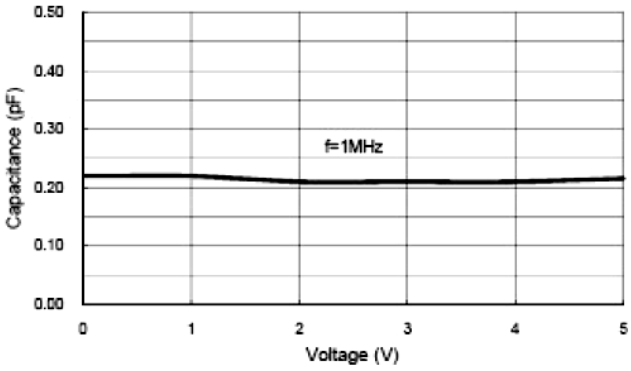


Fig 5 ESD Clamping (+8kV Contact per IEC 61000-4-2)

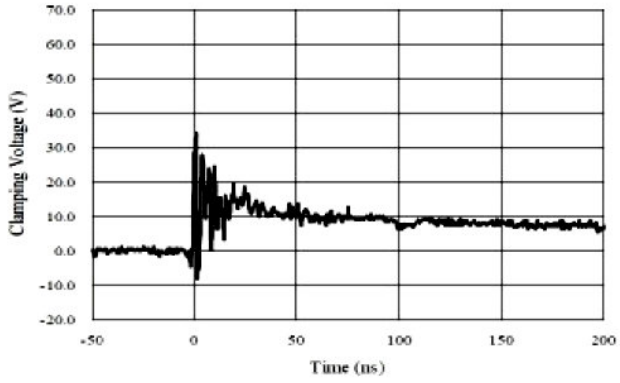
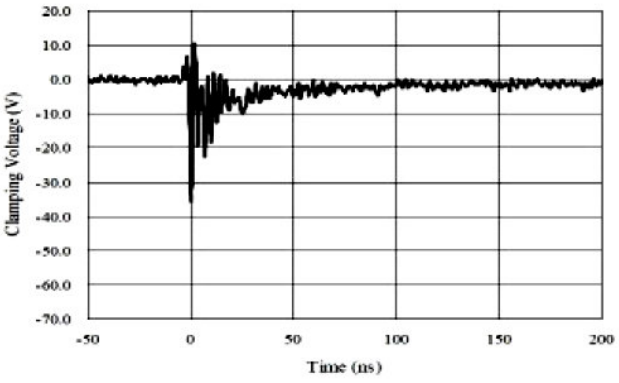


Fig 6 ESD Clamping (-8kV Contact per IEC 61000-4-2)



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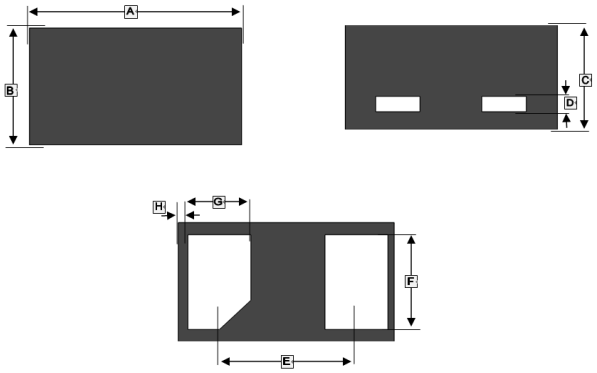
PACKAGE OUTLINE DIMENSIONS

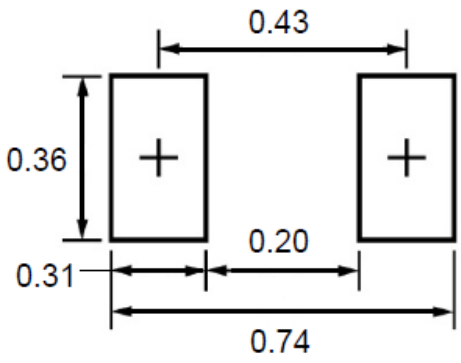
DFNWB0603B



REF.	Millimeter	
	Min.	Max.
A	0.55	0.67
B	0.25	0.37
C	0.27	0.34
D	0.05 REF.	
E	0.36 REF.	
F	0.20	0.35
G	0.12	0.24
H	0.03 REF.	

MOUNTING PAD LAYOUT

DFNWB0603B



*Dimensions in millimeters