

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

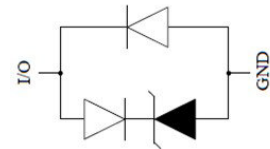
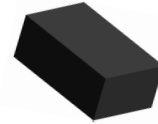
DESCRIPTION

SUESDL15V-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 0.45pF, 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 SUESDL15V-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

15L

PACKAGE INFORMATION

Package	MPQ	Leader Size
DFNWB0603B	15K	7 inch

RDER INFORMATION

Part Number	Type
SUESDL15V-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS (T_A=25°C unless otherwise noted.)

Parameter	Symbol	Rating	Unit
IEC 61000-4-2 ESD Voltage	V _{ESD}	±20	kV
		±15	
Peak Pulsed Power	P _{PP}	50	W
Operating Junction Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~150	

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted.)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Stand-off Voltage	V_{RWM}	-	-	15	V	
Breakdown Voltage	$V_{(BR)}$	16	-	-	V	$I_T=1\text{mA}$
Reverse Leakage Current	I_R	-	-	100	nA	$V_{RWM}=15\text{V}$
Clamping Voltage @ $t_p=8/20\mu\text{s}$	V_C	-	-	22	V	$I_{PP}=1\text{A}$
		-	-	25		$I_{PP}=2\text{A}$
Junction Capacitance	C_J	-	0.45	0.6	pF	$V_R=0\text{V}$, $f=1\text{MHz}$

CHARACTERISTICS CURVES

Fig 1 8/20 μs Waveform per IEC61000-4-5

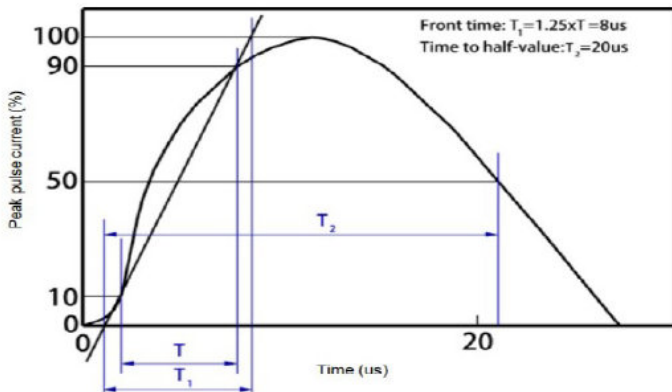


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

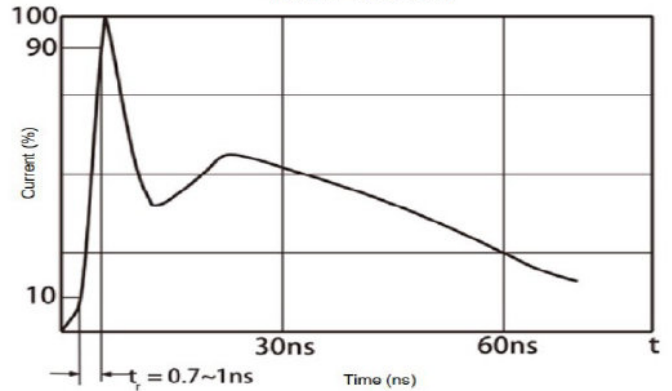


Fig 3 Voltage vs Capacitance

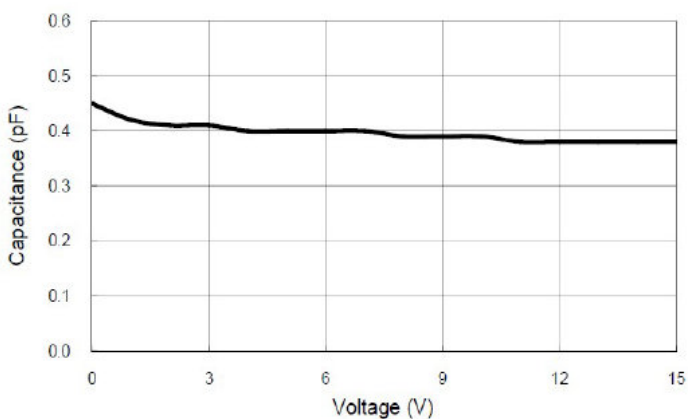
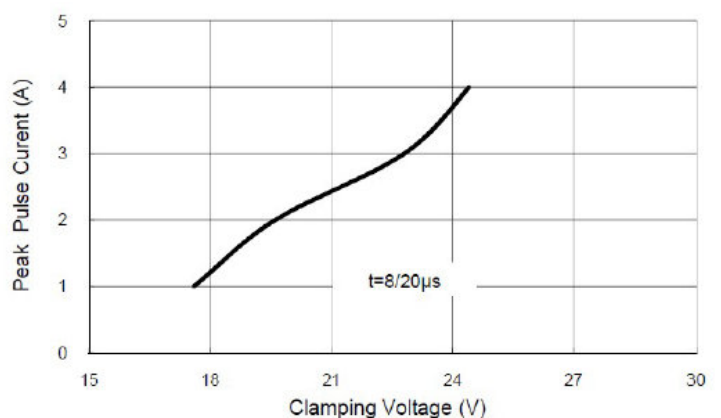
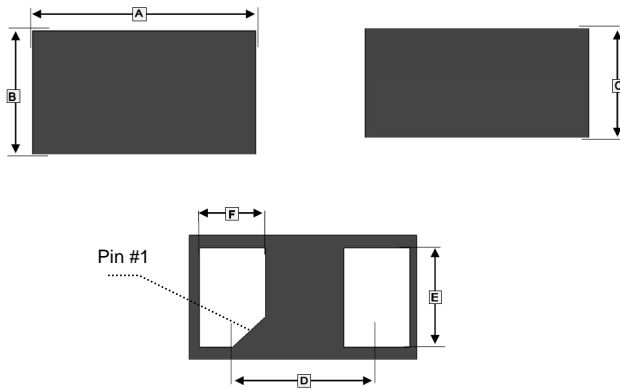


Fig 4 Clamping Voltage vs Peak Pulse Current



PACKAGE OUTLINE DIMENSIONS

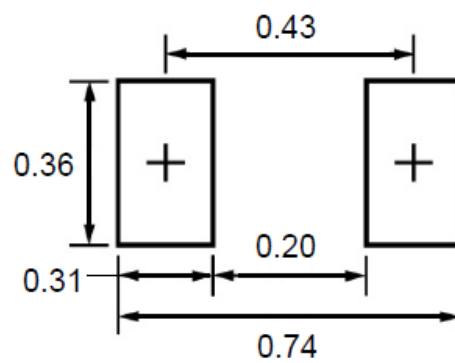
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REF.	Millimeter	
	Min.	Max.
A	0.55	0.67
B	0.25	0.37
C	0.27	0.34
D	0.36 REF.	
E	0.20	0.35
F	0.12	0.24

MOUNTING PAD LAYOUT

DFNWB0603B



*Dimensions in millimeters