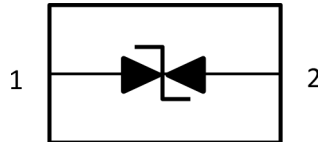
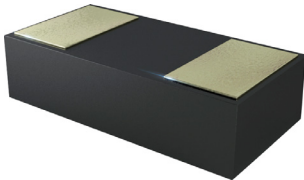


RoHS
Compliant

Device Schematic & PIN Configuration



Description

The H04X35V0BU is ultra-low capacitance ESD designed to protect high speed data interfaces. This series has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from over voltage caused by ESD(electrostatic discharge).

Applications

- USB Data Line Protection, Type-C / 3.0 / 3.1
- High definition multi-media interface (HDMI) 1.4 / 2.0

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppp = 100W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low Leakage Current
- Low Clamping Voltage
- Junction Capacitance : 0.3pF (Max)
- IEC 61000-4-2 (ESD) :±20kV(Contact) / ±25kV(Air)

Mechanical Data

- Case: DFN0603 Package
- Case Material: "Green" Molding Compound UL FlammabilityClassification Rating 94V-0

Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Absolute Ratings			
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P _{PP}	100	W
Peak Pulse Current (8/20 us)	I _{PP}	4	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±20	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±25	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	
Soldering Temperature, t max =10s	T _L	260	

Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	--	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage	$I_T = 1\text{mA}$	V_B	6	-	-	
Reverse Current	$V_R = 5\text{V}$	I_R	-	-	0.1	μA
Reverse Clamping Voltage	$I_{PP} = 1\text{A} (8/20\mu\text{s})$	V_C	-	-	13	V
	$I_{PP} = 4\text{A} (8/20\mu\text{s})$				25	
Junction Capacitance	$V_R = 0\text{V}, F = 1\text{MHz}$	C_j	-	0.25	0.3	pF

Rating and Characteristic Curves

FIG.1 - 8/20us Pulse Waveform According to IEC 61000-4-5

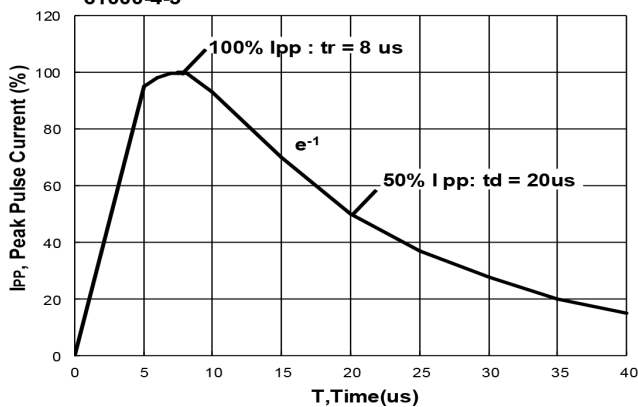


FIG.2 - Power Dissipation Versus Pulse Time

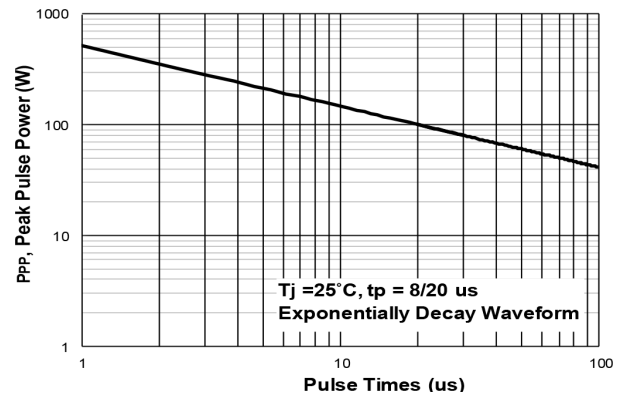


FIG.3 - Peak Pulse Power Versus T_j

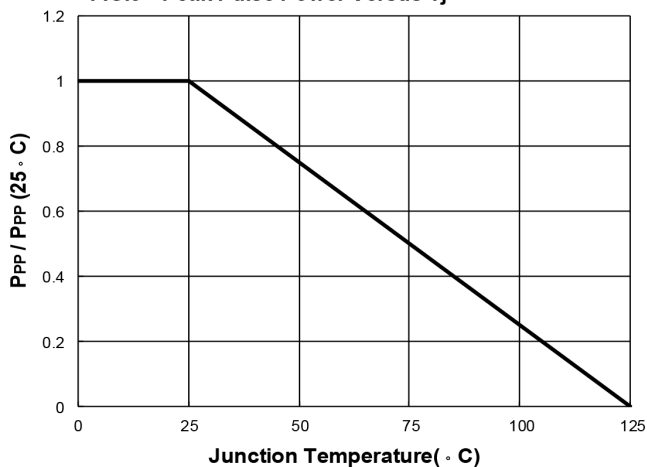
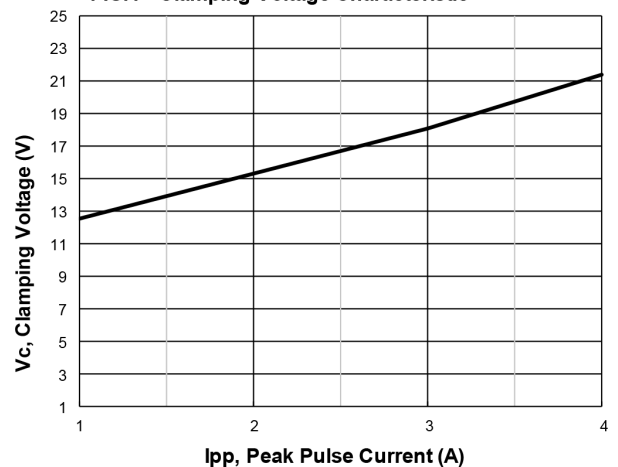
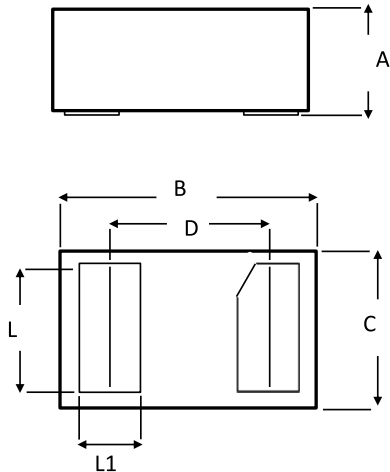


FIG.4 - Clamping Voltage Characteristic

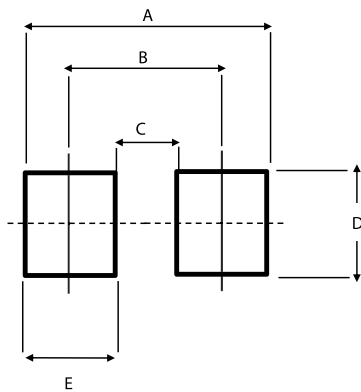


Package Outline Dimensions



DFN0603 Package		
Dim	Min	Max
A	0.28	0.35
B	0.58	0.65
C	0.28	0.34
L	0.2	0.26
L1	0.13	0.19
D	0.36(Typ)	

Suggested Soldering Pad Layout



Dim.	Value
A	0.64
B	0.4
C	0.16
D	0.34
E	0.24

Part Number Table

Description	Part Number
ESD Protection Diode, Bi-Directional, 4A, 25V, DFN-1006	H04X35V0BU

Dimensions : Millimetres

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