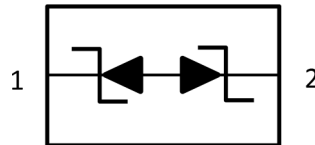
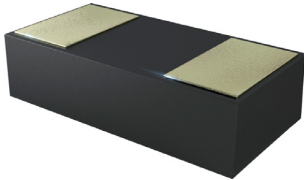


RoHS
Compliant

Device Schematic & PIN Configuration



Description

The H04X25V0BU 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 overvoltage caused by ESD (electrostatic discharge).

Applications

- Digital Visual Interface (DVI)
- Cellular Handsets & Accessories
- Display / USB / MDDI Ports
- RF Circuits
- PCI Express

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppp = 100W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low Leakage Current
- Ultra low Capacitance : 0.25pF (Typ)

Mechanical Data

- Case: DFN1006 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0

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

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	

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Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicomp^{PRO}

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	-	-	100	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	0.4	pF

Rating and Characteristic Curves

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

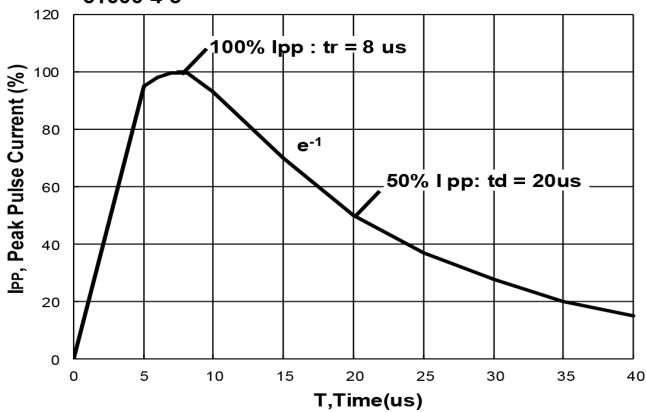


FIG.2 - Power Dissipation Versus Pulse Time

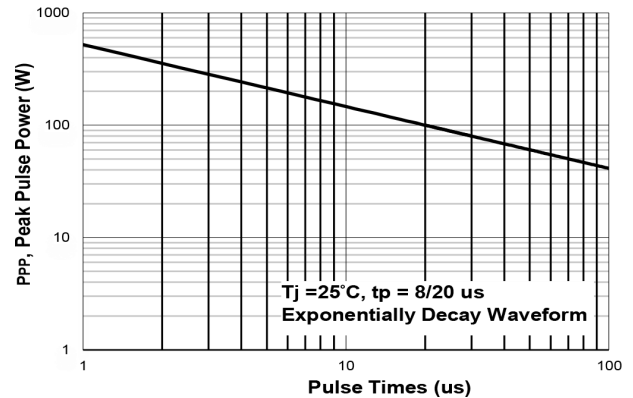


FIG.3 - Peak Pulse Power Versus T_j

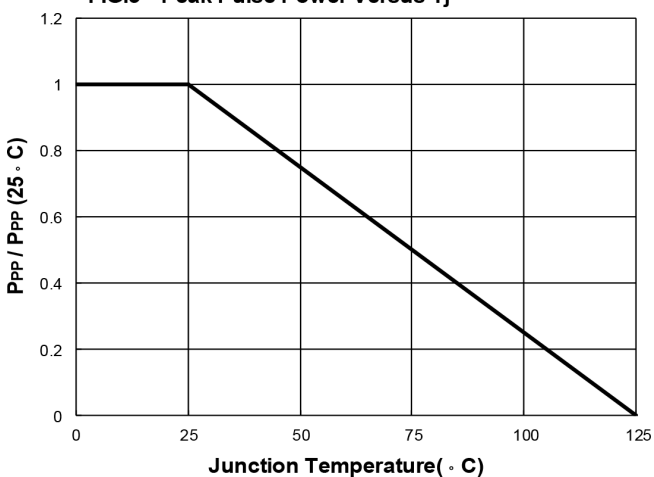
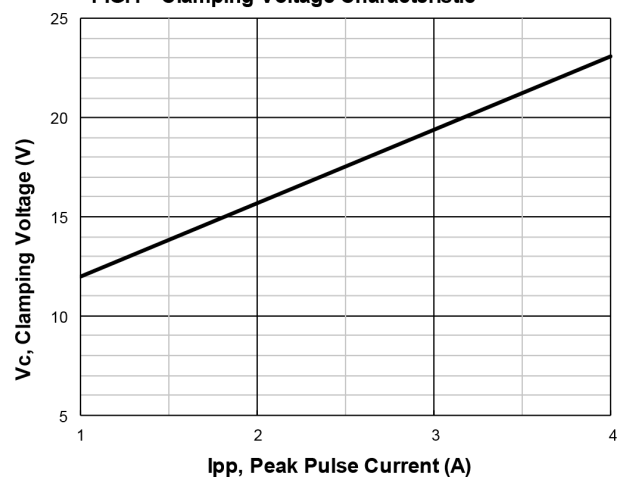
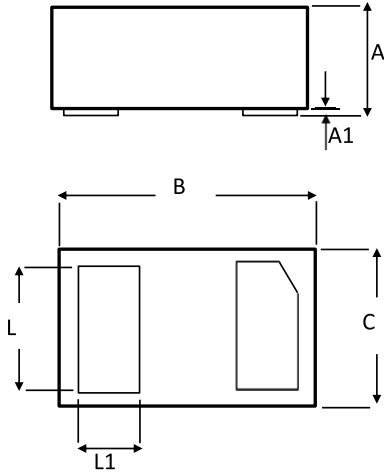


FIG.4 - Clamping Voltage Characteristic

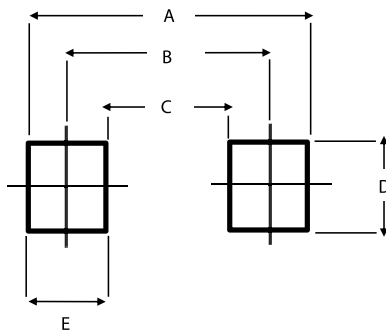


Package Outline Dimensions



DFN1006 Package		
Dim	Min	Max
A	0.45	0.55
A1	--	0.02
B	0.95	1.05
C	0.55	0.65
L	0.45	0.55
L1	0.2	0.3

Suggested Soldering Pad Layout



Dim.	Value
A	1.1
B	0.9
C	0.3
D	0.6
E	0.4

Part Number Table

Description	Part Number
ESD Protection Diode, Uni-Directional, 4A, 25V, SOT-26	H04X25V0BU

Dimensions : Millimetres

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