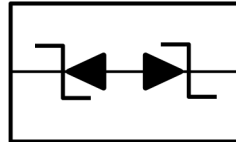
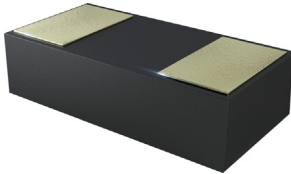


RoHS
Compliant

Device Schematic & PIN Configuration



Description

The H20X25V0B device has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD (electrostatic discharge).

Applications

- Computers and peripherals
- Communication system
- Audio & video equipment
- Portable instrumentation

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :P_{pp} = 400W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low Leakage Current
- Low Clamping Voltage
- IEC 61000-4-2 (ESD) :±27kV(Contact) / ±30kV(Air)

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}	400	W
Peak Pulse Current (8/20 us)	I _{PP}	20	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±27	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
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	5.6		9	
Reverse Current	$V_R = 5\text{V}$	I_R		-	1	μA
Reverse Clamping Voltage	$I_{PP} = 1\text{A} (8/20\mu\text{s})$	V_C	-		9.8	V
	$I_{PP} = 4\text{A} (8/20\mu\text{s})$				20	
Junction Capacitance	$V_R = 0\text{V}, F = 1\text{MHz}$	C_j		30	40	pF

Rating and Characteristic Curves

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

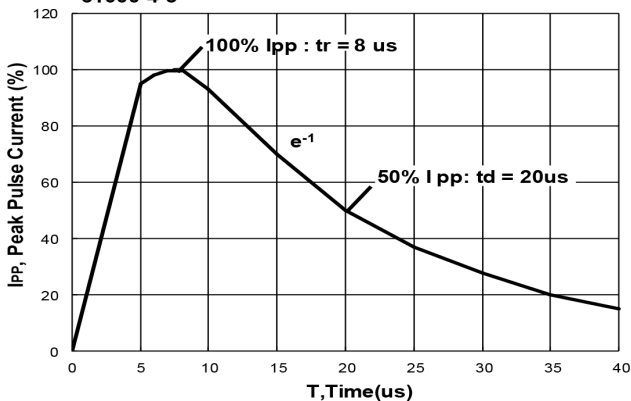


FIG.2 - Power Dissipation Versus Pulse Time

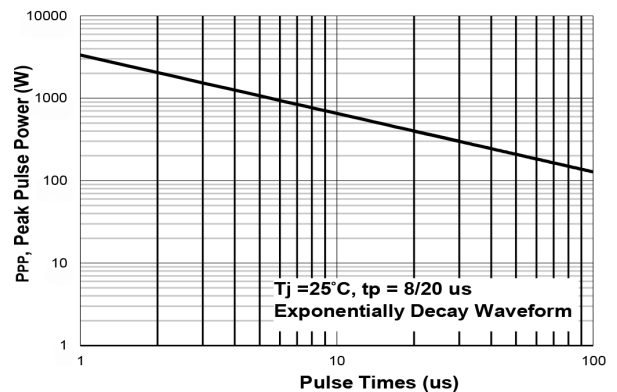


FIG.3 - Peak Pulse Power Versus T_j

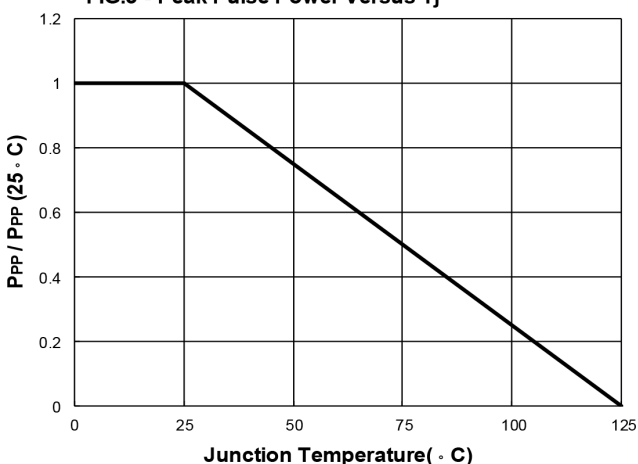
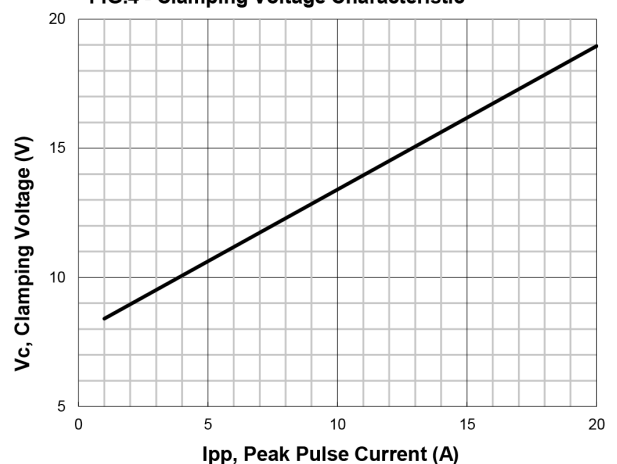
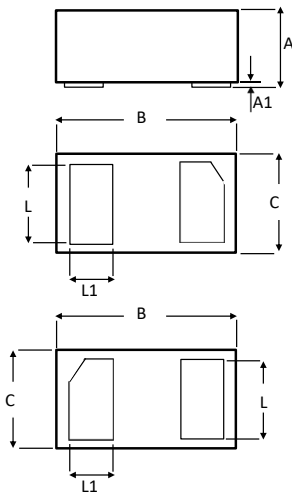


FIG.4 - Clamping Voltage Characteristic

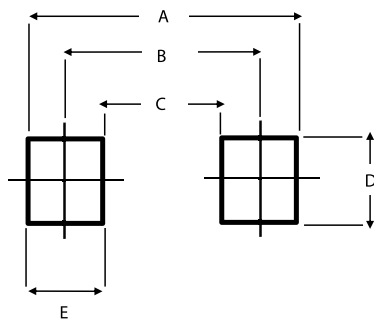


Package Outline Dimensions



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, Bi-Directional, 20A, 20V, DFN-1006	H20X25V0B

Dimensions : Millimetres

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