H20X25V0B

Bi-directional ESD Protection Diode

Peak Pulse Power - 400 Watts
Reverse Working Voltage - 5V

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).

Features

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

Applications

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

Mechanical Data

- Case: DFN1006 Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Component in accordance to RoHS
- Halogen Free

Note: Products with logo or are made by HY Electronic (Cayman) Limited.

Ordering Information

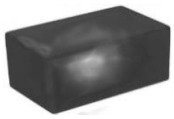
- Package :DFN1006
- Reel Size :7 (inches)
- Quantity Per Reel :10,000/Tape & Reel
- Quantity One Box :100,000/Tape & Reel
- Quantity One Carton :400,000/Tape & Reel

Marking Information

H

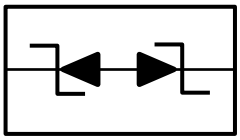
"H"=Product Type Marking Code

Package Outline



DFN1006 Top View

Device Schematic & PIN Configuration



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

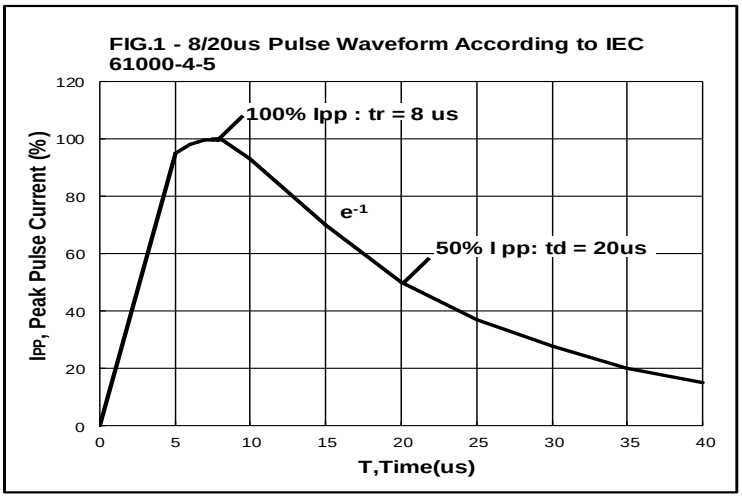
Absolute Ratings

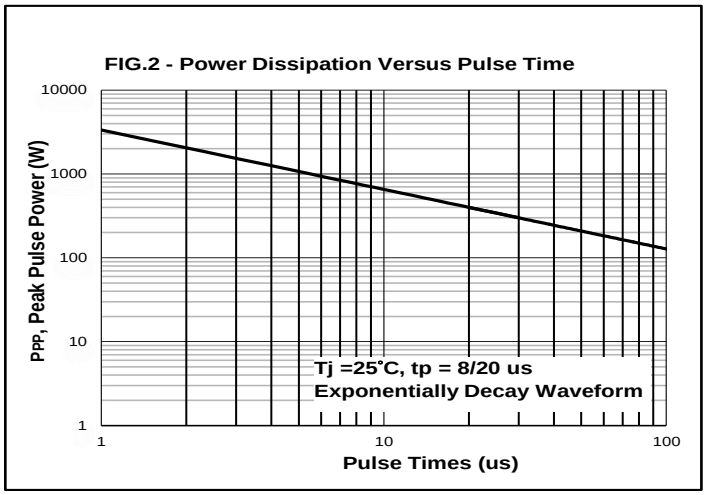
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	400	W
Peak Pulse Current (8/20 us)	I_{PP}	20	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±27	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T_J	-55 to +125	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C
Soldering Temperature, t max =10s	T_L	260	° C

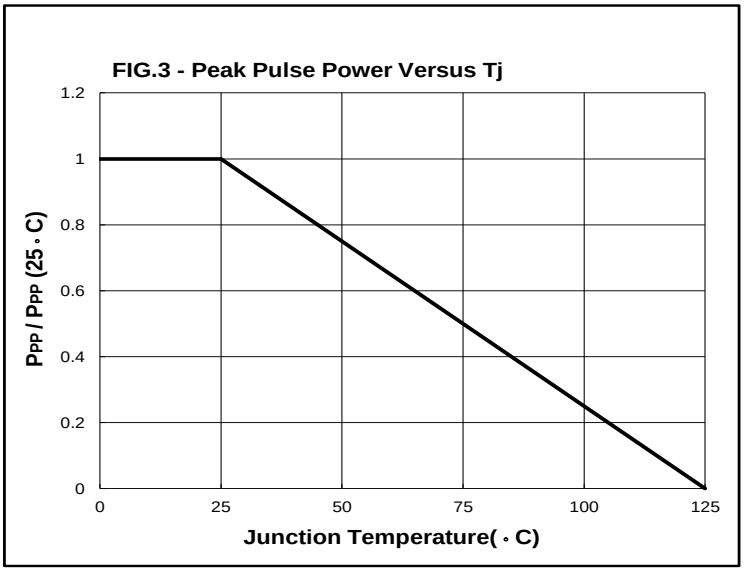
Electrical Characteristics

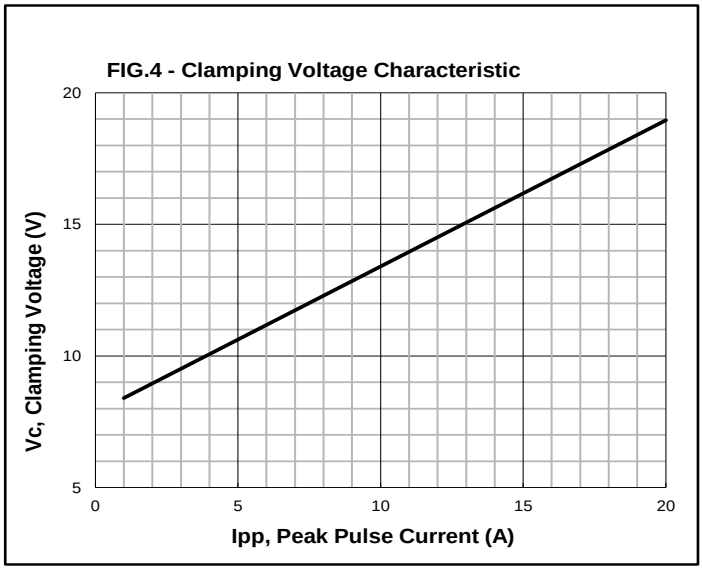
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	---	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage	I_T= 1mA	V_B	5.6	-	9	V
Reverse Current	V_R = 5V	I_R	-	-	1	uA
Reverse Clamping Voltage	I_{PP} = 1A (8/20μs)	V_C	-	-	9.8	V
	I_{PP} = 20A (8/20μs)		-	-	20	
TLP Clamping Voltage	I_{PP} =16A, T_P =100ns	V_{TLP}	-	10	-	V
Dynamic Resistance	TLP Pulse	R_{DYN}	-	0.17	-	Ω
Junction Capacitance	V_R = 0V, F = 1MHz	Cj	-	30	40	p F

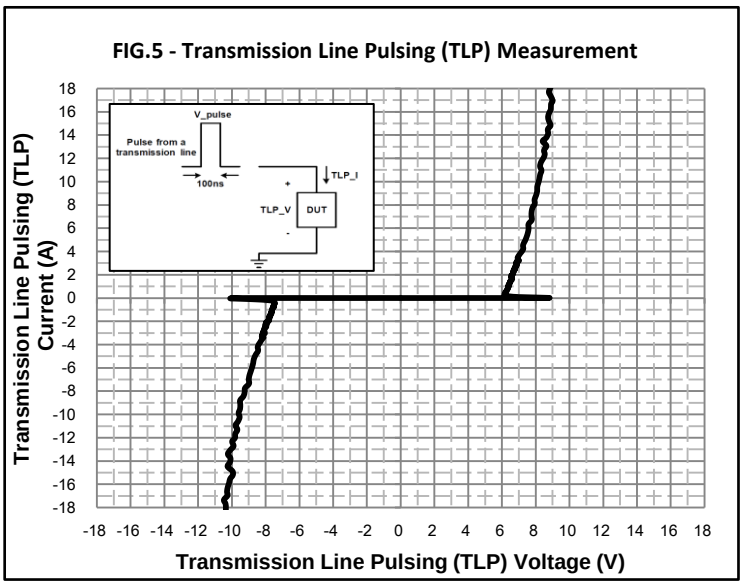
Rating and Characteristic Curves





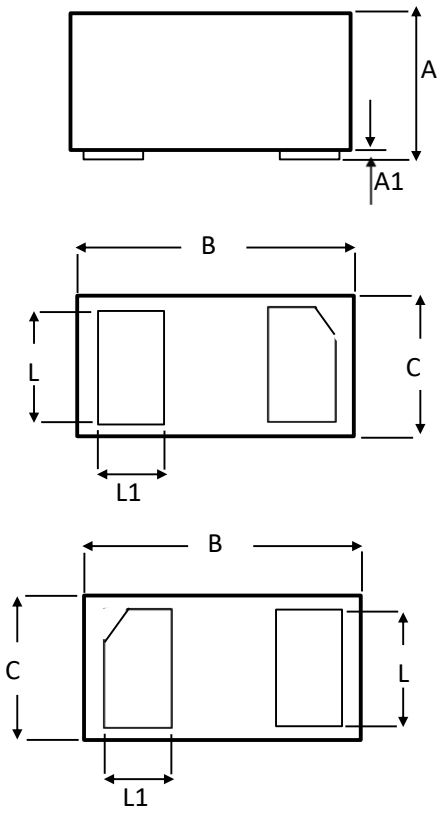






The curve above is for reference only.

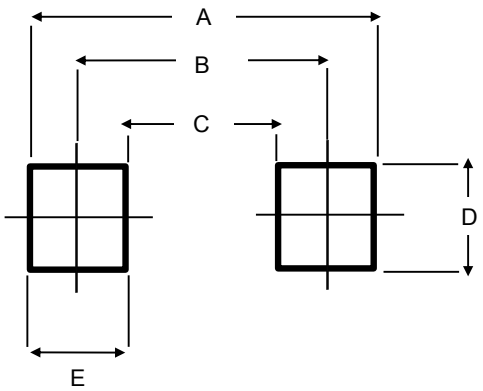
Package Outline Dimensions



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
All Dimensions in mm		

Note: HY internal have both AT site

Suggested Soldering Pad Layout



Dim.	Value
A	1.10
B	0.90
C	0.30
D	0.60
E	0.40
All Dimensions in mm	

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