Bi-directional ESD Protection Diode

Peak Pulse Power - 70 Watts
Reverse Working Voltage - 5V

Description

The H06X35V0B is designed to provide electrostatic discharge (ESD) protection for data, control or power lines. The uses ultra small DFN0603 package. Each device can protect one data line. It offers system designers flexibility to protect single data line where space is a premium concern.

Features

- 1 Channel of ESD Protection (Bi-directional)
- Peak Pulse Power :Ppp = 70W (tp=8/20 us)
- Reverse Working Voltage : 5V
- Low Leakage Current
- Low Clamping Voltage
- Junction Capacitance : 18pF (Max)
- IEC 61000-4-2 (ESD) :±25kV(Contact) / ±30kV(Air)

Applications

- Cell phone Handsets and Accessories
- Portable Electronics
- IOT Terminal Equipment/Device
- Smart Wearable Device
- Notebooks, Desktops, and Servers

Mechanical Data

- Case: DFN0603 Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Component in accordance to RoHS
- Halogen Free

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

Ordering Information

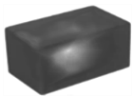
- Package :DFN0603
- Reel Size :7 (inches)
- Quantity Per Reel :15,000/Tape & Reel
- Quantity One Box :150,000/Tape & Reel
- Quantity One Carton :600,000/Tape & Reel

Marking Information



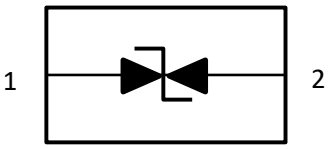
"5BN"=Product Type Marking Code

Package Outline



DFN0603 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}	70	W
Peak Pulse Current (8/20 us)	I_{PP}	6	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±25	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	-	-	V
Reverse Current	V_R = 5V	I_R	-	-	1	uA
Reverse Clamping Voltage	I_{PP} = 1A (8/20μs)	V_C	-	-	8	V
	I_{PP} = 6A (8/20μs)		-	-	12	
Junction Capacitance	V_R = 0V, F = 1MHz	Cj	-	-	18	p F

Rating and Characteristic Curves

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

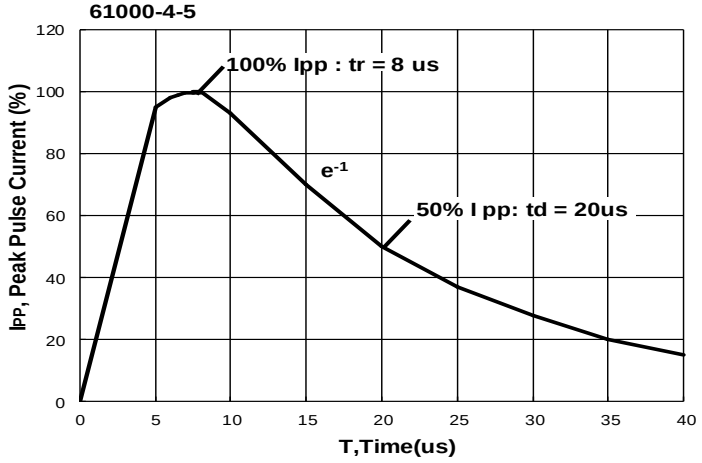


FIG.2 - Power Dissipation Versus Pulse Time

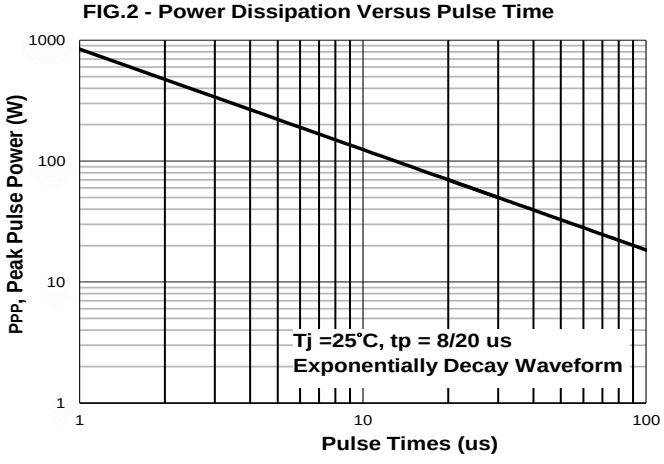


FIG.3 - Peak Pulse Power Versus Tj

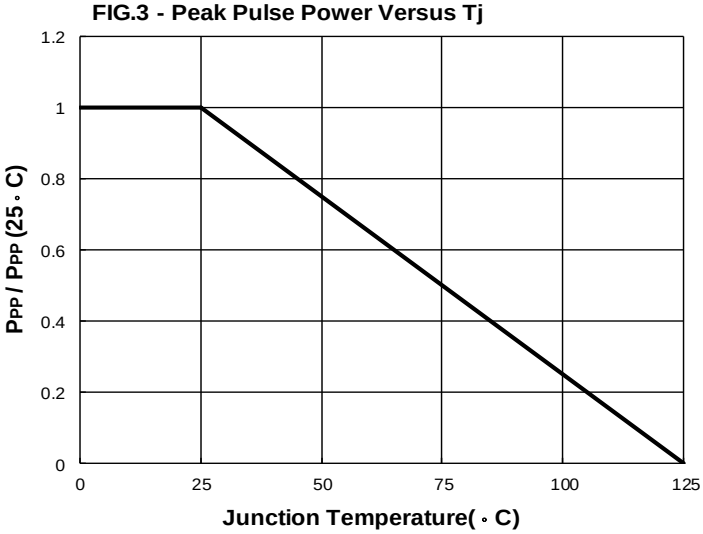
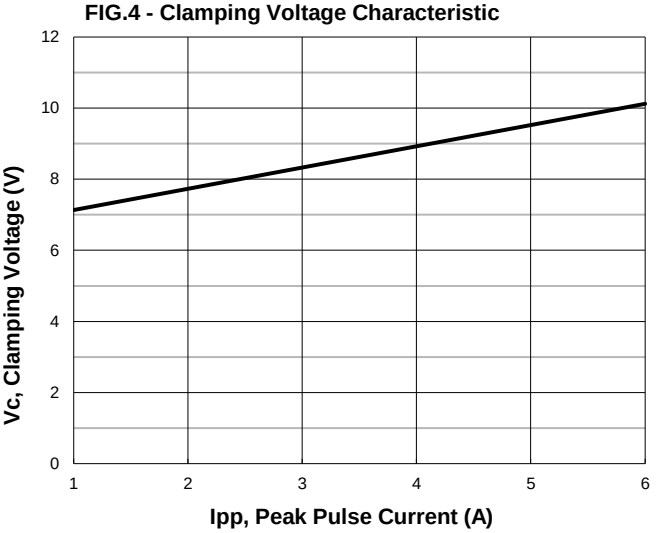
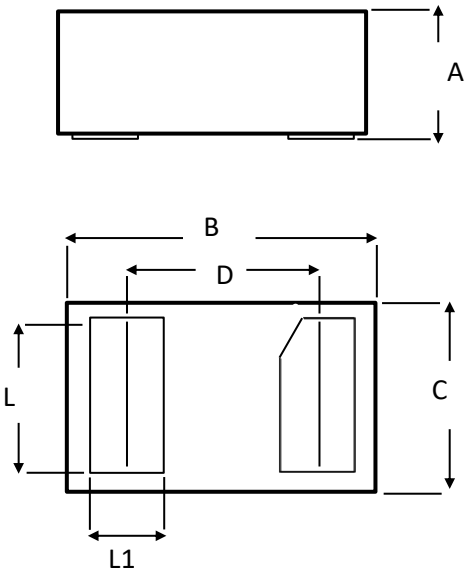


FIG.4 - Clamping Voltage Characteristic



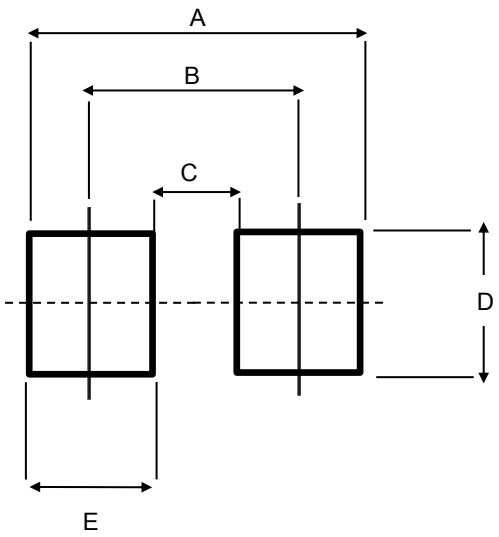
The curve above is for reference only.

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)	
All Dimensions in mm		

Suggested Soldering Pad Layout



Dim.	Value
A	0.64
B	0.40
C	0.16
D	0.34
E	0.24
All Dimensions in mm	

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