



Bi-directional Automotive ESD Protection Diode

Peak Pulse Power - 100 Watts
Reverse Working Voltage - 5V

Description

The AH04X25V0BU 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).

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)
- IEC 61000-4-2 (ESD) :±20kV(Contact) / ±25kV(Air)
- High reliability and automotive grade (AEC-Q101 qualified)

Applications

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

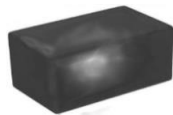
Mechanical Data

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

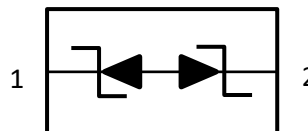
Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

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**Package Outline**

DFN1006 Top View

Device Schematic & PIN Configuration**Maximum Ratings (@TA = +25°C, unless otherwise specified.)****Absolute Ratings**

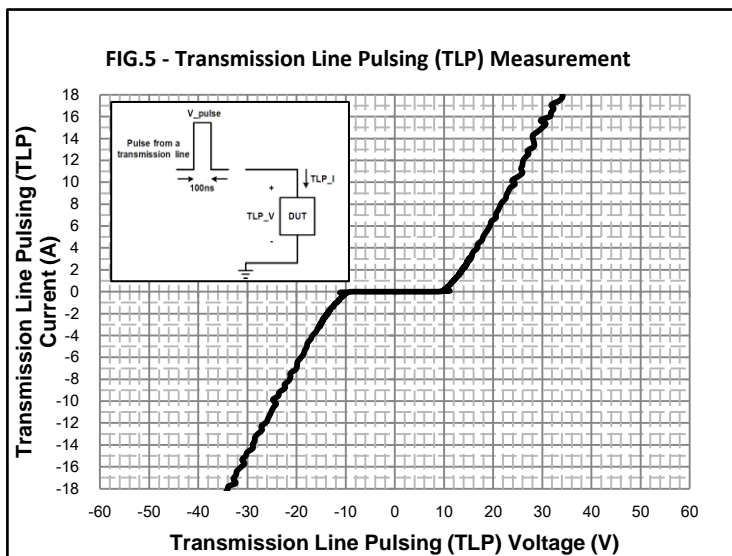
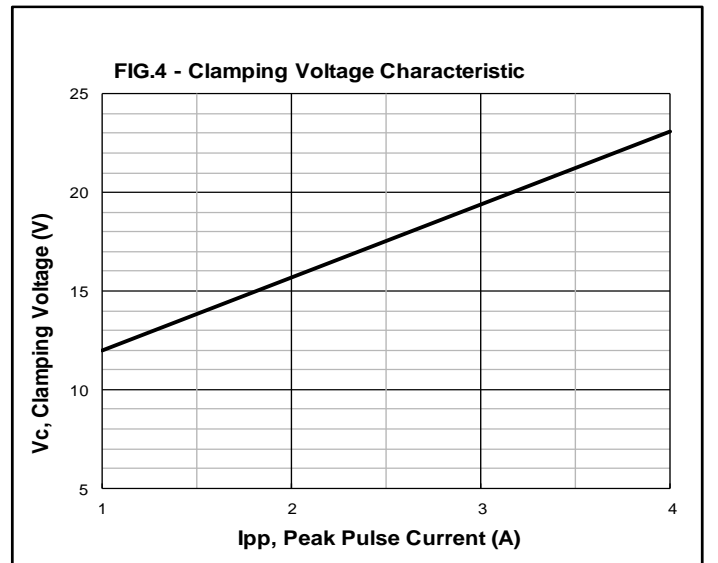
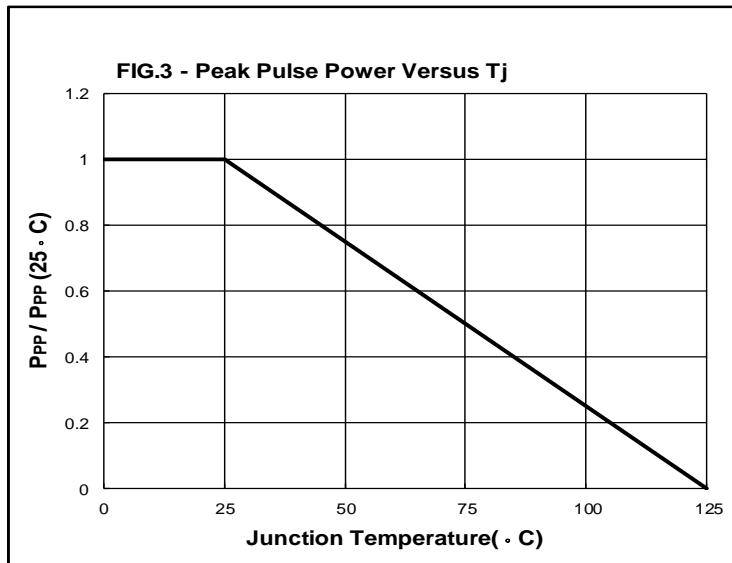
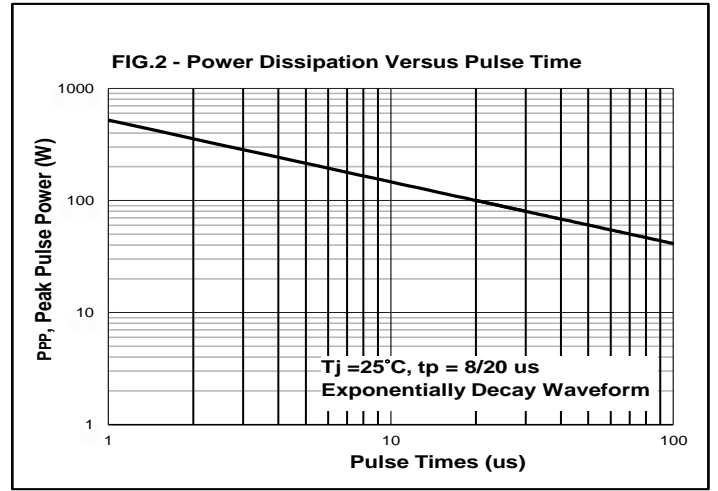
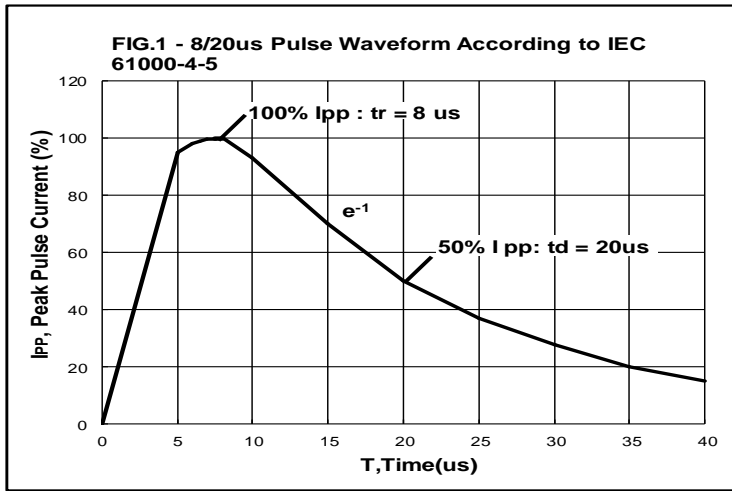
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P _{PP}	100	W
Peak Pulse Current (8/20 us)	I _{PP}	4	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V _{ESD}	±20	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±25	
Operating Temperature Range	T _J	-55 to +125	° C
Storage Temperature Range	T _{STG}	-55 to +150	° 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	6	-	-	V
Reverse Current	V _R = 5V	I _R	-	-	100	nA
Reverse Clamping Voltage	I _{PP} = 1A (8/20µs)	V _C	-	-	13	V
	I _{PP} = 4A (8/20µs)		-	-	25	
TLP Clamping Voltage	I _{PP} =16A, T _P =100ns	V _{TLP}	-	31	-	V
Dynamic Resistance	TLP Pulse	R _{DYN}	-	1.3	-	Ω
Junction Capacitance	V _R = 0V, F = 1MHz	C _j	-	0.25	0.4	p F

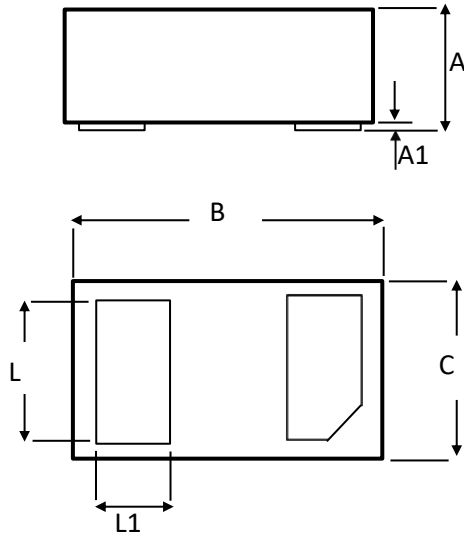


Rating and Characteristic Curves



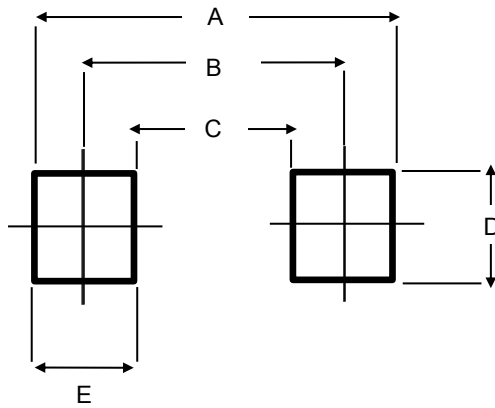


Package Outline Dimensions



DFN1006 Package		
Dim	Min	Max
A	0.46	0.51
A1	-	0.05
B	0.95	1.05
C	0.55	0.65
L	0.45	0.55
L1	0.2	0.3
All Dimensions in mm		

Suggested Soldering Pad Layout



Dim.	Value
A	1.10
B	0.70
C	0.30
D	0.60
E	0.40
All Dimensions in mm	



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