ESD Array Protection Device

Peak Pulse Power - 270 Watts
Reverse Working Voltage - 2.5V

Description

The H15X942V5L is a low capacitance TVS arrays designed to provide ESD protection for high speed data interfaces.This is designed to protect parasitic sensitive systems against over voltage and over current transient events.

Features

- Provides protection for two line pairs
- Low leakage current
- Low clamping voltage
- Low junction capacitance : 0.7pF (Typ)
- IEC 61000-4-2 (ESD) :±30kV(Contact) / ±30kV(Air)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Surge) 15A (8/20μ)

Applications

- 10/100/1000 Ethernet
- WAN/LAN Equipment
- Security Cameras
- Industrial Controls
- Notebook & Desktop Computers

Mechanical Data

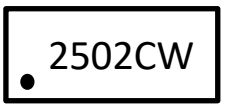
- Case: DFN2010-8L Package
- Case Material: “Green” Molding Compound UL Flammability Classification Rating 94V-0
- Terminal: Matte tin plated
- Component in accordance to RoHS
- Halogen Free

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

Ordering Information

- Package :DFN2010-8L
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :30,000/Tape & Reel
- Quantity One Carton :120,000/Tape & Reel

Marking Information



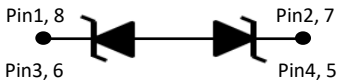
Product Type Marking Code

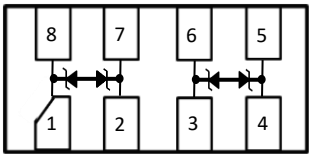
Package Outline



DFN2010-8L Top View

Device Schematic & PIN Configuration





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

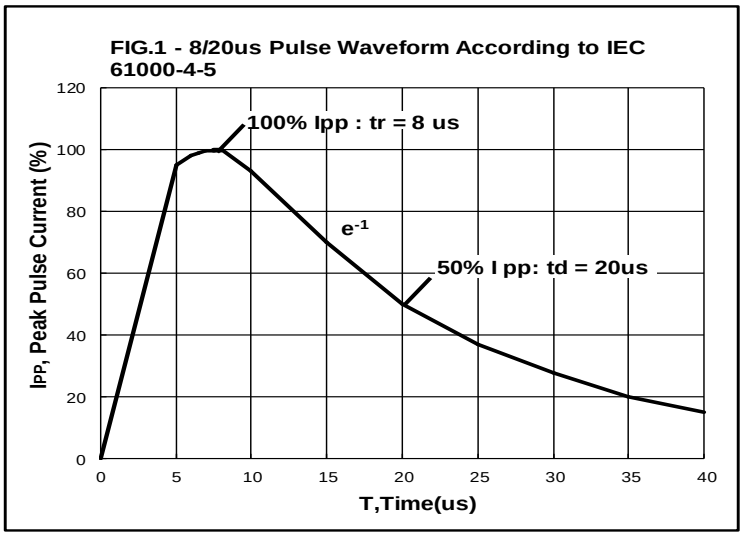
Absolute Ratings

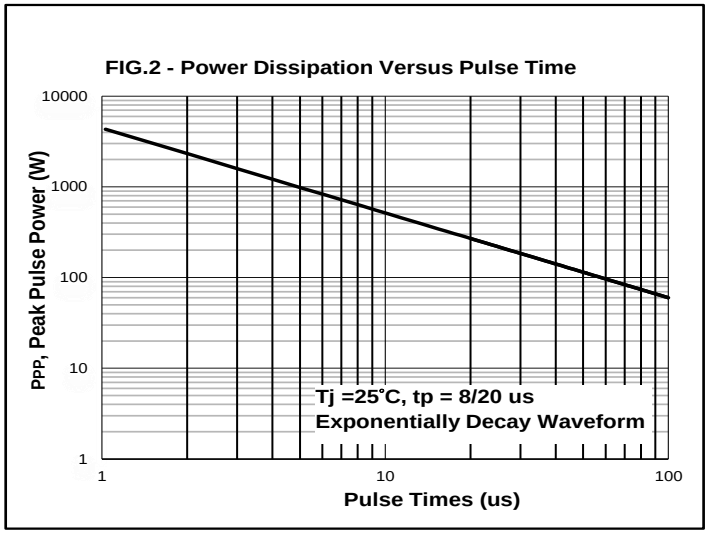
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	P_{PP}	270	W
Peak Pulse Current (8/20 us)	I_{PP}	15	A
ESD Protection- Contact (Standard IEC 61000-4-2)	V_{ESD}	±30	k V
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	T_J	-55 to +125	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C

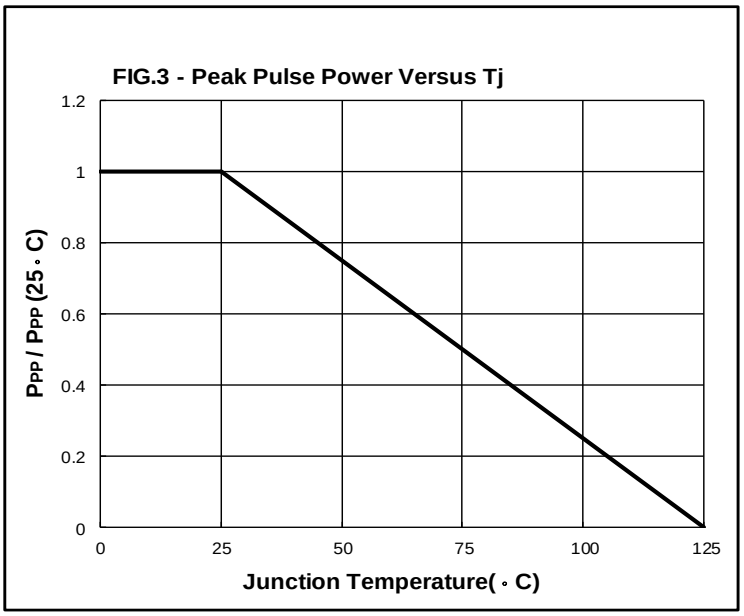
Electrical Characteristics

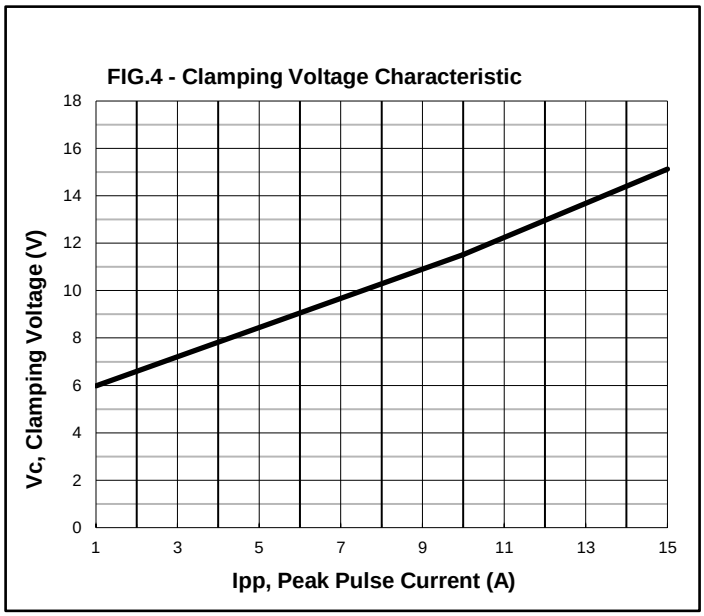
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	Any I/O pin to ground	V_{RWM}	-	-	2.5	V
Reverse Breakdown Voltage	I_R= 1mA	V_B	3.5	-	-	V
Reverse Leakage Current	V_R = 2.5V	I_R	-	-	100	nA
Clamping Voltage	I_{PP} = 1A (8/20μs)	V_C	-	-	6.5	V
	I_{PP} = 10A (8/20μs)				12	
	I_{PP} = 15A (8/20μs)		-	-	18	
Junction Capacitance	VR = 0V, F = 1MHz	Cj	-	0.7	0.9	p F

Rating and Characteristic Curves



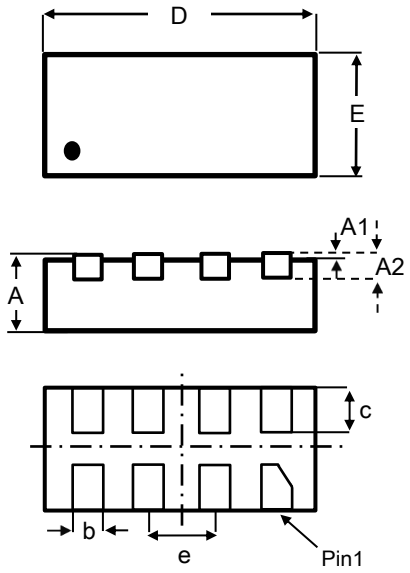






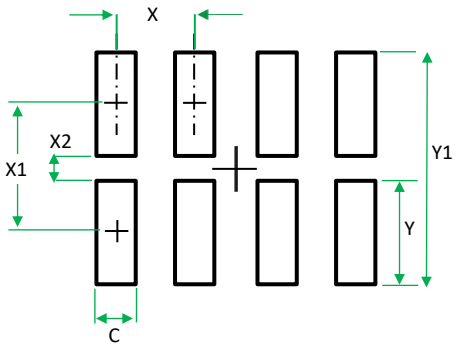
The curve above is for reference only.

Package Outline Dimensions



DFN2010-8L Package		
Dim.	Min	Max
D	1.90	2.10
E	0.90	1.10
A	0.46	0.51
A1	0.00	0.05
A2	0.127 BSC	
b	0.20	0.30
c	0.32	0.43
e	0.50 BSC	
All Dimensions in mm		

Suggested Soldering Pad Layout



Dim.	Value
X	0.50
X1	0.90
X2	0.25
Y	0.65
Y1	1.55
C	0.30
All Dimensions in mm	

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