



Ultra Low Capacitance ESD Array Protection Device

Peak Pulse Power - 60 Watts Reverse Working Voltage - 5.0V

Description

The H04XA65V0U-C is ultra low capacitance ESD arrays designed to protect high speed data interfaces. It has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from over voltage caused by ESD (electrostatic discharge).

Features

- Protects six I/O lines (Data line) and one Vcc line
- Peak Pulse Power :Ppp = 60W (tp=8/20 us)
- Reverse Working Voltage : 5.0V
- Low Leakage Current
- Low Clamping Voltage
- Low Junction Capacitance : I/O to Gnd , 0.4pF (Typ)
- IEC 61000-4-2 (ESD) :±20kV(Contact) / ±30kV(Air)



Applications

- High definition multi-media interface (HDMI)
- USB 3.0 include the Super speed and High speed signal

Mechanical Data

- Case: DFN4120-10L 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

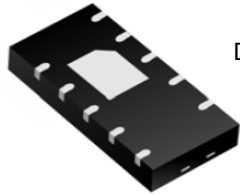
- Package :DFN4120-10L
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :30,000/Tape & Reel
- Quantity One Carton :120,000/Tape & Reel

Marking Information



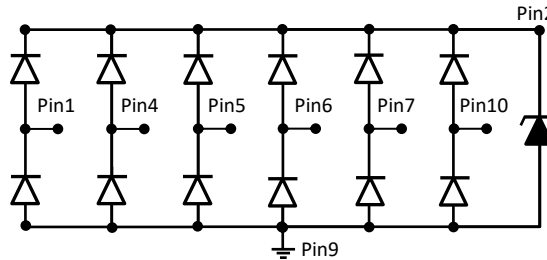
"56L"=Product Type Marking Code

Package Outline



DFN4120-10L Top View

Device Schematic & PIN Configuration



Pin Assignment	
1, 4, 5, 6, 7, 10	Input lines
2	Vcc
9	Ground
3, 8	NC

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

Absolute Ratings

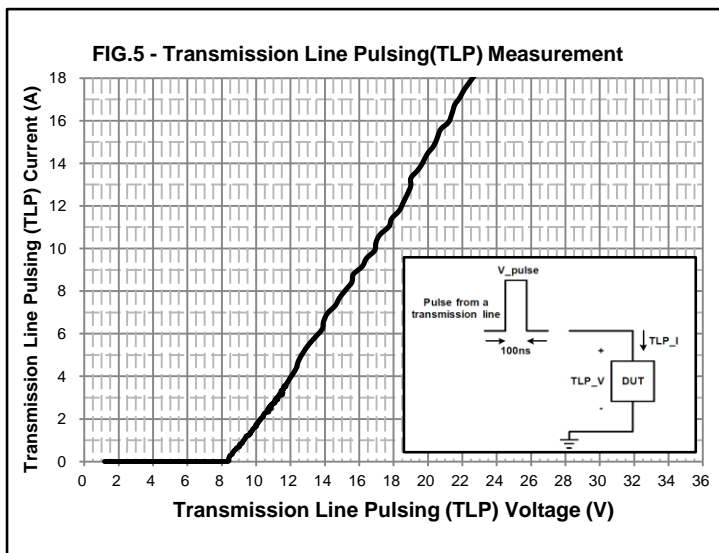
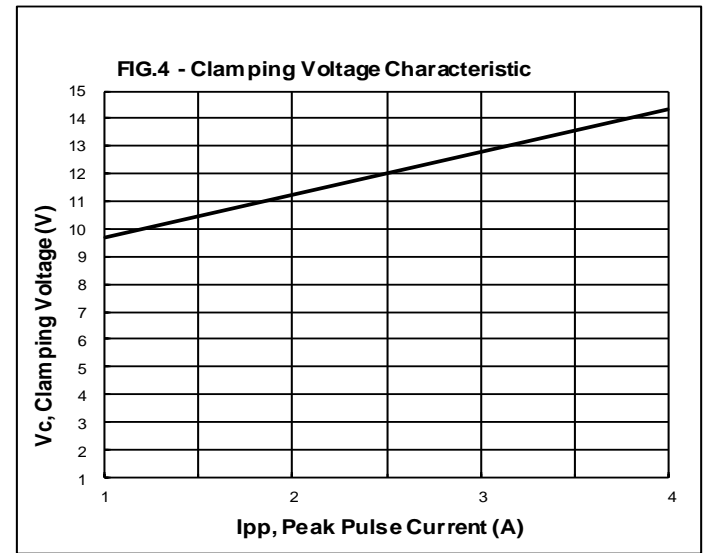
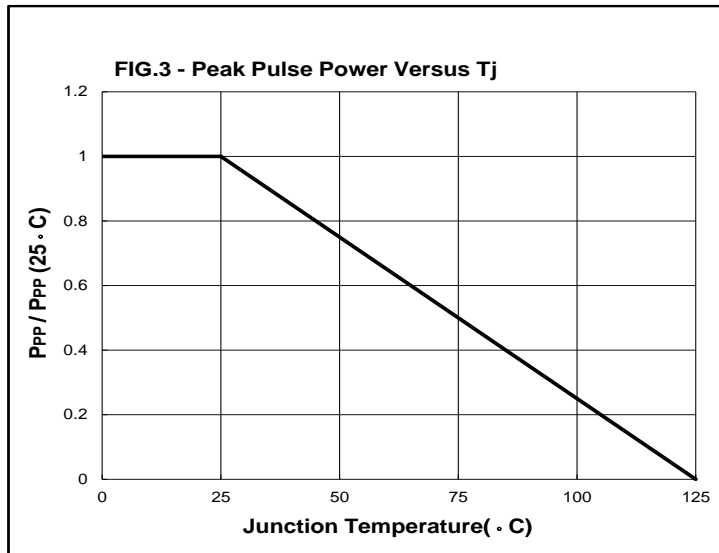
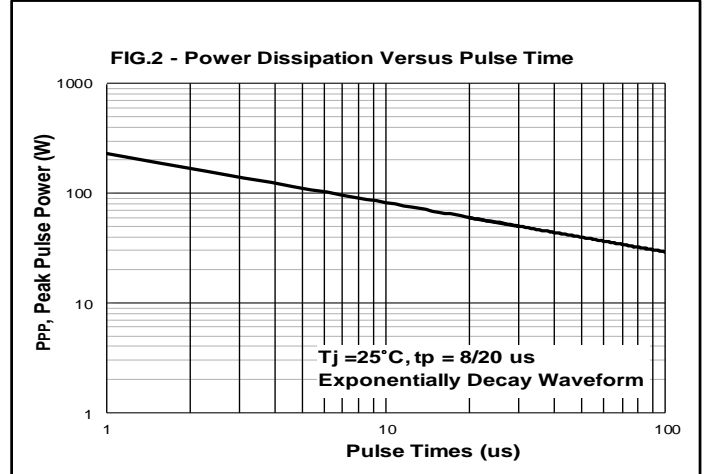
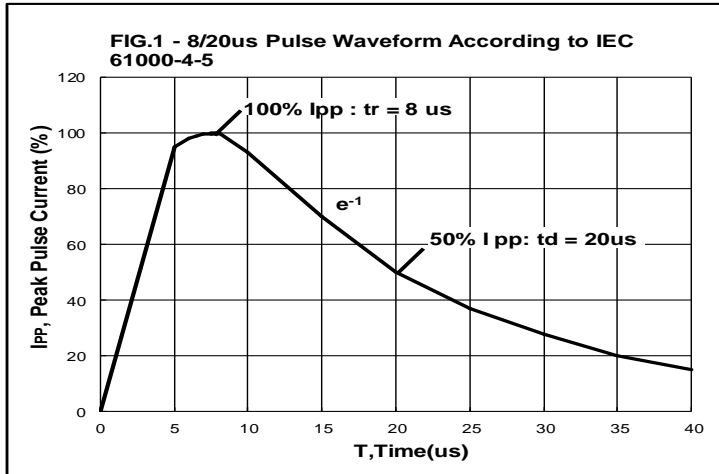
Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation (8/20 us)	PPp	60	W
Peak Pulse Current (8/20 us)	IPp	4	A
ESD Protection- Contact (Standard IEC 61000-4-2)	VESD	±20	kV
ESD Protection- Air (Standard IEC 61000-4-2)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	TSTG	-55 to +150	°C

Electrical Characteristics

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Working Voltage	Any I/O pin & Vcc to ground	VRWM	-	-	5	V
Reverse Breakdown Voltage	IT= 1mA	VB	6	-	9	V
Reverse Current	VR = 5V	IR	-	-	1	uA
Reverse Clamping Voltage	IPP = 1A (8/20µs)	VC	-	-	10	V
	IPP = 4A (8/20µs)		-	-	15	
TLP Clamping Voltage	IPP = 16A, TP=100ns	VCL	-	20	-	V
Dynamic Resistance	TLP Pulse	RdYN	-	0.7	-	Ω
Junction Capacitance	VR = 0V, F = 1MHz Between I/O pins	CJ	-	0.2	0.3	pF
	VR = 0V, F = 1MHz Any I/O pin to ground		-	0.4	0.5	

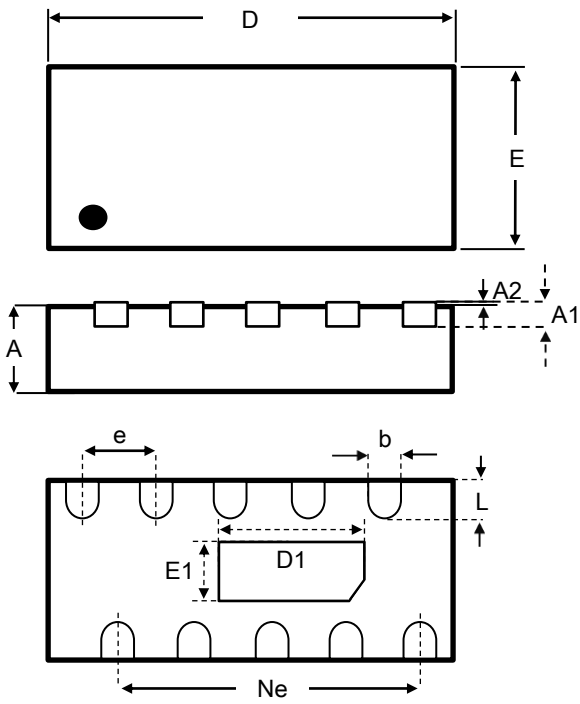


Rating and Characteristic Curves



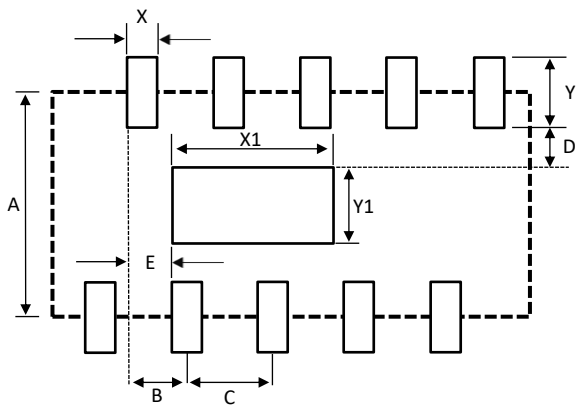


Package Outline Dimensions



DFN4120-10L Package		
Dim.	Min	Max
A	0.45	0.55
A1	0.15 REF	
A2	-	0.05
D	4.05	4.15
E	1.95	2.05
D1	1.35	1.45
E1	0.75	0.85
L	0.25	0.35
b	0.15	0.25
e	0.80 BSC	
Ne	3.20 BSC	
All Dimensions in mm		

Suggested Soldering Pad Layout



Dim.	Value
A	2.0
B	0.4
C	0.8
D	0.2
E	0.3
X	0.2
X1	1.4
Y	0.6
Y1	0.8
All Dimensions in mm	



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