

FEATURES

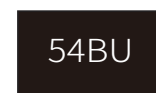
- | 100W Peak Pulse Power per Line ($t_p=8/20\mu s$)
- | Package optimized for high-speed lines
- | Protects four data lines
- | Low capacitance: 0.2pF for each channel
- | Low leakage current
- | Low clamping voltage
- | Each I/O pin can withstand over 1000 ESD strikes for $\pm 8kV$ contact discharge

APPLICATIONS

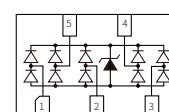
- | Serial ATA
- | PCI Express
- | Desktops, Servers and Notebooks
- | MDDI Ports
- | USB 3.0/3.1 and Data Line Protection
- | Display Ports
- | High Definition Multi-Media Interface (HDMI)
- | Digital Visual Interface (DVI)



DFN2010-5L



Marking



Schematic Symbol

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) $\pm 25kV$ (air), $\pm 20kV$ (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

THERMAL CONSIDERATIONS

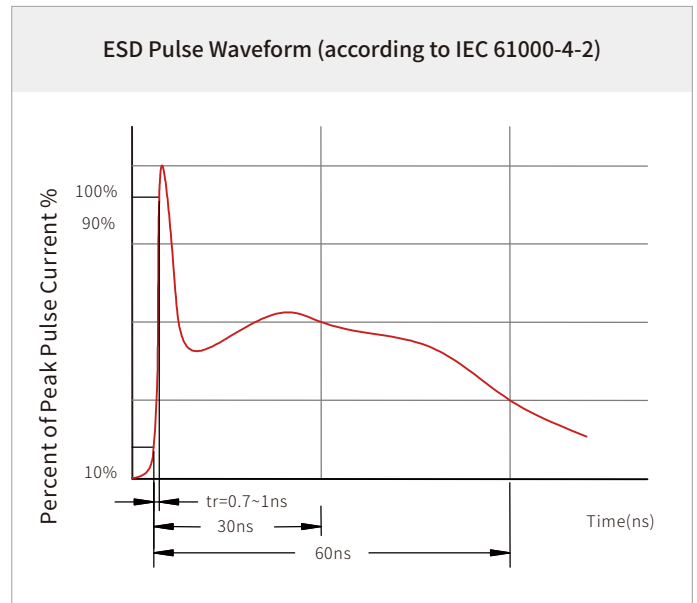
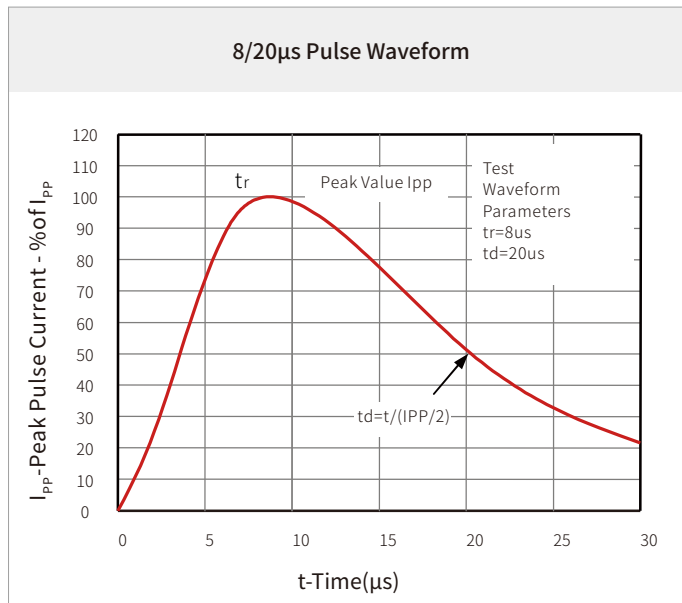
Symbol	Parameter	Value	Unit
P_{pp}	Peak Pulse Power ($t_p=8/20\mu s$ waveform)	100	Watts
T_J	Operating Temperature Range	-55 to +125	$^{\circ}C$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1mA$	6.0		10.0	V
I_R	Reverse Leakage Current	$V_{RWM}=5V$			0.2	μA
V_C	Clamping Voltage	$I_{pp}=1A, t_p=8/20\mu s$			10	V
V_C	Clamping Voltage	$I_{pp}=3A, t_p=8/20\mu s$			17	V
V_C	Clamping Voltage	$I_{pp}=4A, t_p=8/20\mu s$			20	V
I_{PP}	Peak Pulse Current	$t_p=8/20\mu s$			4	A
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$ I/O-GND		0.2	0.25	pF
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$ I/O-I/O		0.2	0.25	pF

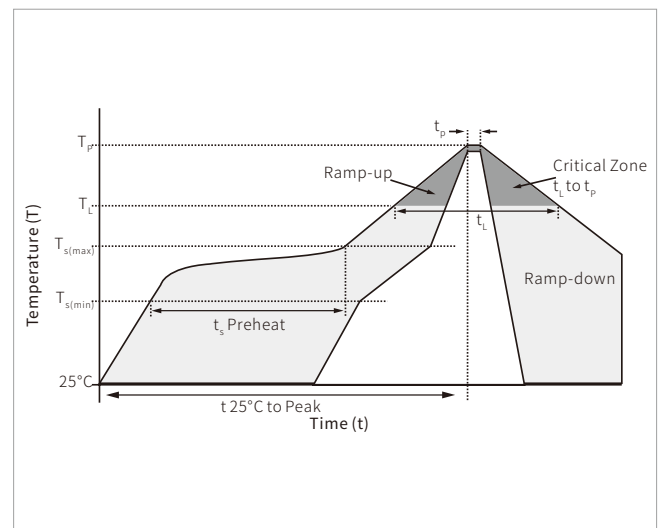
Note: I/O are pin 1,3,4,5, GND is pin 2

CHARACTERISTIC CURVES

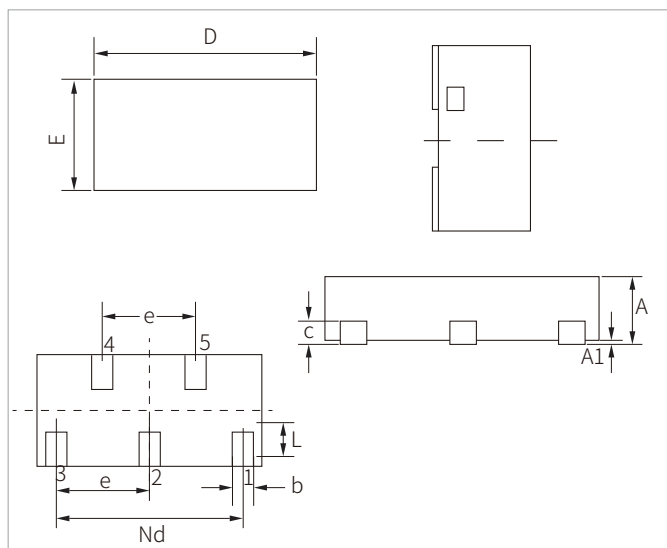


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

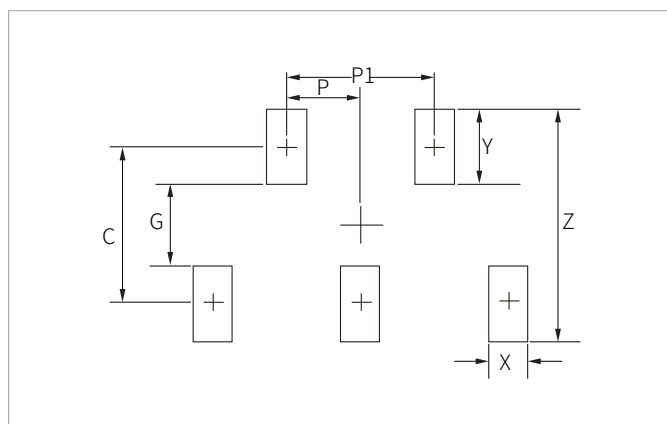


DFN2010-5L PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.40	0.60	0.016	0.024
A1	0.00	0.05	0.000	0.002
b	0.15	0.25	0.006	0.010
c	0.152REF		0.006REF	
D	1.90	2.10	0.075	0.083
Nd	1.60BSC		0.063BSC	
e	0.80BSC		0.031BSC	
E	0.90	1.10	0.035	0.043
L	0.30	0.40	0.012	0.016

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
C	0.85	0.033
G	0.25	0.010
P	0.40	0.016
P1	0.80	0.031
X	0.20	0.008
Y	0.60	0.024
Z	1.45	0.057

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE21P5F10B5.0UE	DFN2010-5L	3000PCS	7"

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By QR Code

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