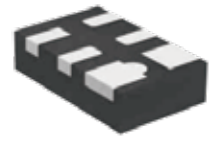


FEATURES

- Package optimized for high-speed lines
- Protects two I/O lines
- Ultra Low capacitance:0.2pf (typical between I/O channel)
- Low operating and clamping voltages

APPLICATIONS

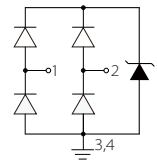
- High Definition Multi-Media Interface (HDMI)
- USB 1.1/2.0/3.0/OTG
- IEEE 1394 Firewire Ports
- Projection TV Monitors and Flat Panel Displays
- Notebook Computers
- Set Top Box



DFN1610-6L

0522P

Marking



Schematic Symbol

IEC COMPATIBILITY

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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

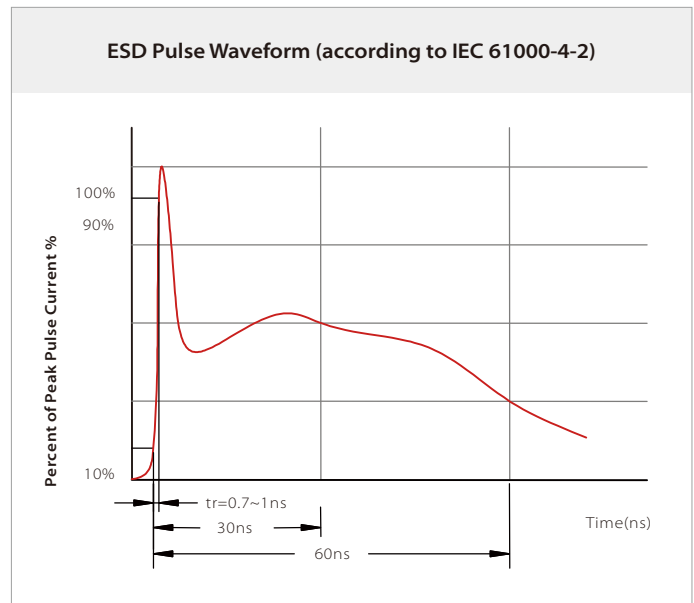
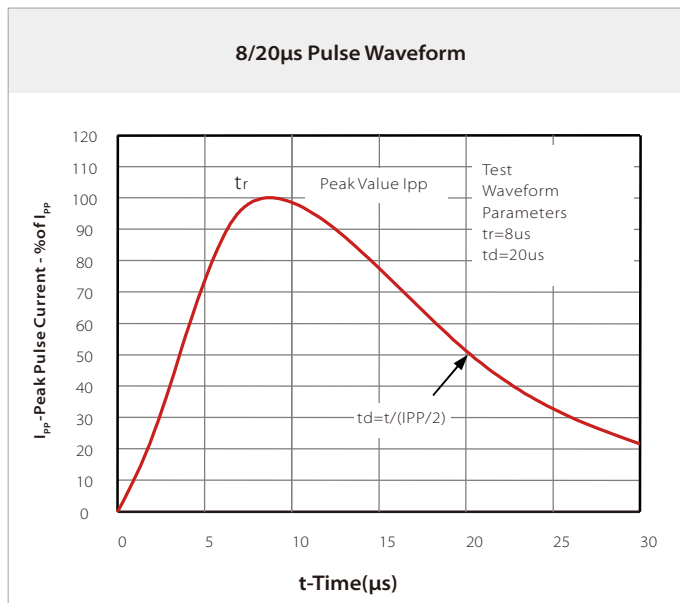
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P_{PP}	Peak Pulse Power (tp=8/20μs waveform)	60	Watts
T_J	Operating Temperature Range	-55 to +125	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

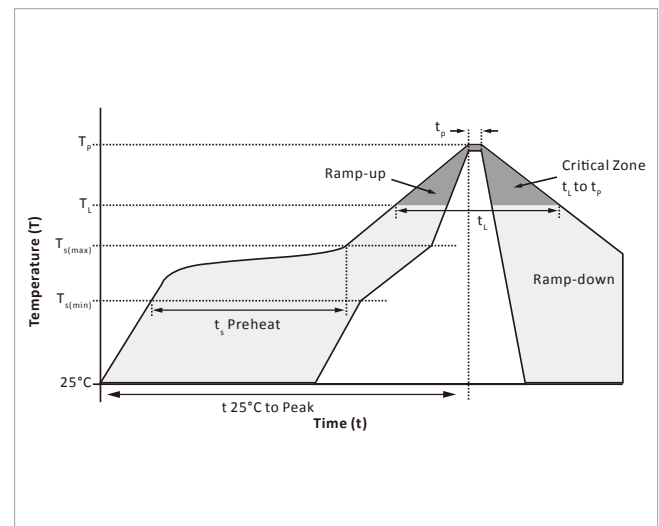
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				5	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1mA$	6			V
I_R	Reverse Leakage Current	$V_{RWM}=5V$			0.1	μA
V_F	Diode Forward Voltage	$I_F=15mA$			1.2	V
V_C	Clamping Voltage (Tp=8/20us)	$I_{pp}=1A, tp=8/20us$			10	V
V_C	Clamping Voltage (Tp=8/20us)	$I_{pp}=4A, tp=8/20us$			15	V
I_{pp}	Peak Pulse Current (Tp=8/20us)	tp=8/20us			4	A
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$ I/O-GND		0.4	0.6	pF
C_J	Off State Junction Capacitance	$V_R=0V, f=1MHz$ I/O-I/O		0.2	0.3	pF

CHARACTERISTIC CURVES

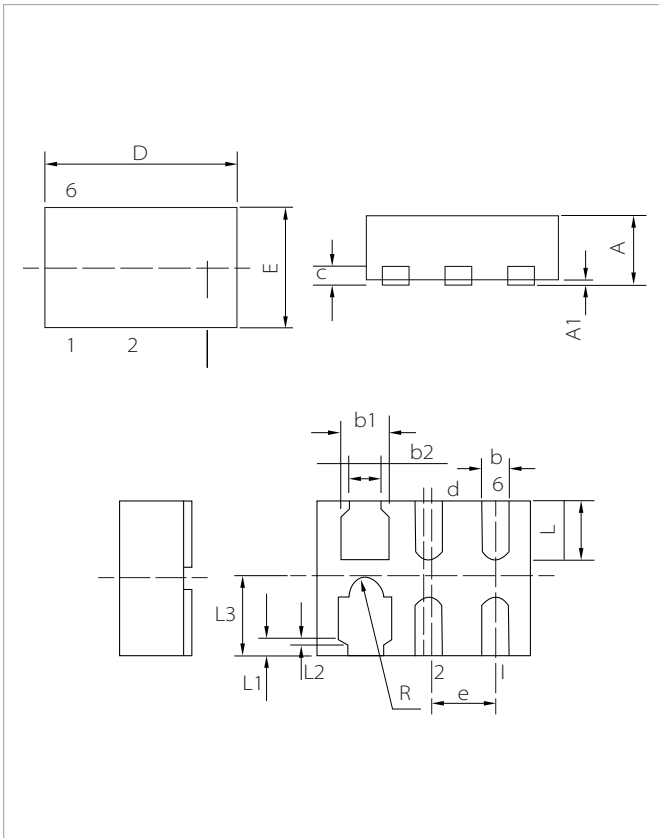


SOLDERING PARAMETERS

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_p)	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

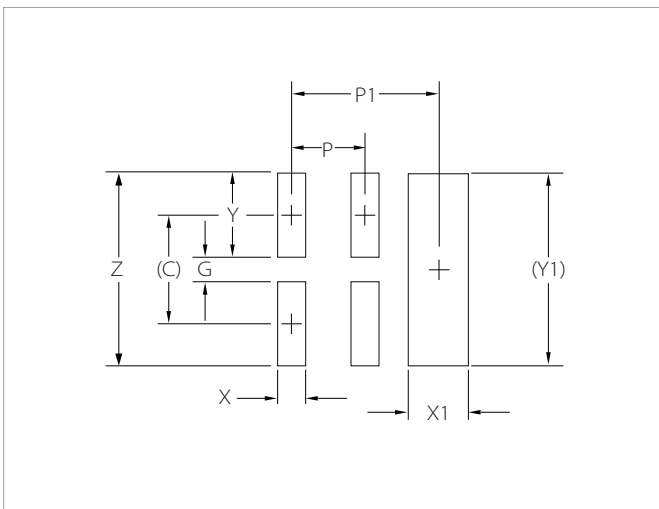


DFN1610-6L PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.45	0.55	0.018	0.022
A1	0	0.05	0	0.002
b	0.15	0.25	0.006	0.010
b1	0.35	0.45	0.014	0.018
b2	0.20	0.30	0.008	0.012
c	0.10	0.20	0.004	0.008
d	0.05TYP		0.002	
D	1.55	1.65	0.061	0.065
e	0.50BSC		0.020BSC	
E	0.95	1.05	0.037	0.041
L	0.30	0.45	0.012	0.018
L1	0.10REF		0.004REF	
L2	0.05REF		0.002REF	
L3	0.49REF		0.019REF	
R	0.08	0.18	0.003	0.007

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
C	0.875	0.034
G	0.20	0.008
P	0.50	0.020
P1	1.00	0.039
X	0.20	0.008
X1	0.40	0.016
Y	0.675	0.027
Y1	1.55	0.061
Z	1.55	0.061

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE16P6F10B5.0MA	DFN1610-6L	3000PCS	7"

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By QR Code

Website



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