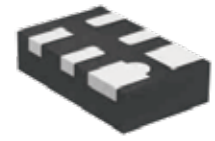


## FEATURES

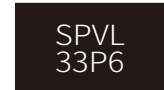
- | 40Watts peak pulse power (tp = 8/20µs)
- | Protects Two High Speed I/O Lines
- | Low Clamping Voltage

## APPLICATIONS

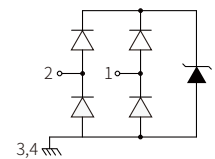
- | Digital Visual Interface
- | USB Ports
- | PCI Express
- | Serial ATA
- | Firewire Ports
- | GaAs Photodetector Protection
- | HBT Power Amp Protection
- | Infiniband Transceiver Protection



DFN1610-6L



Marking



Schematic Symbol

## IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±20kV (air), ±15kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

## APPROVALS

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

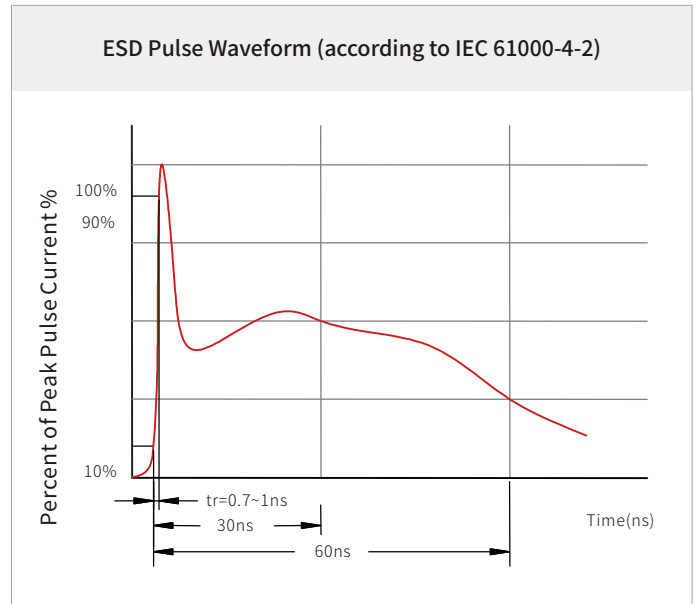
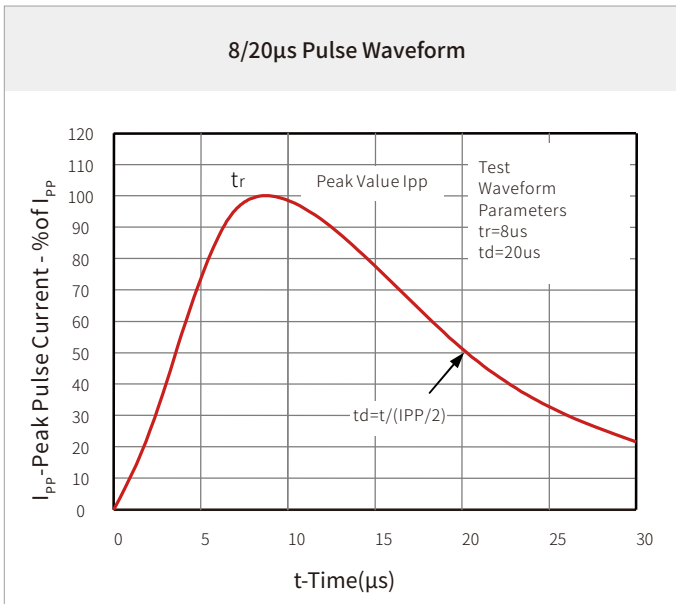
## THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
$P_{PP}$	Peak Pulse Power (tp=8/20µs waveform)	40	Watts
$T_J$	Operating Temperature Range	-55 to +125	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS

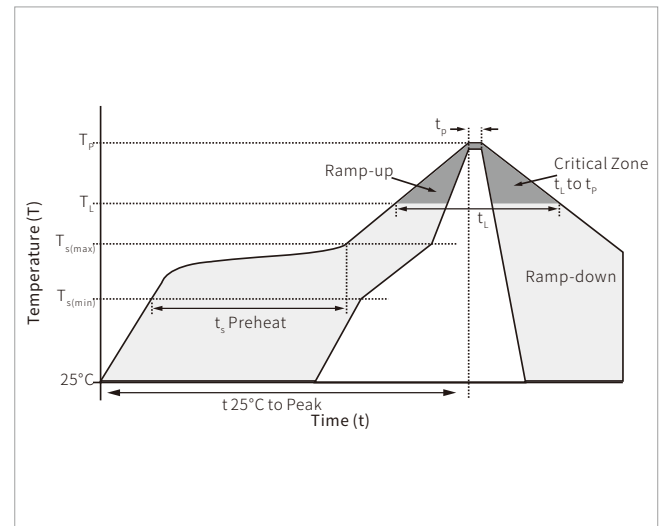
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
$V_{RWM}$	Reverse Stand-off Voltage				3.3	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T=1mA$	6.2			V
$I_R$	Reverse Leakage Current	$V_{RWM}=3.3V$			1	µA
$V_C$	Clamping Voltage	$I_{PP}=4.5A, tp=8/20µs$			9	V
$I_{PP}$	Peak Pulse Current	tp=8/20µs			4.5	A
$C_J$	Off State Junction Capacitance	$V_R=0V, f=1MHz$ I/O-I/O		0.4		pF

## CHARACTERISTIC CURVES

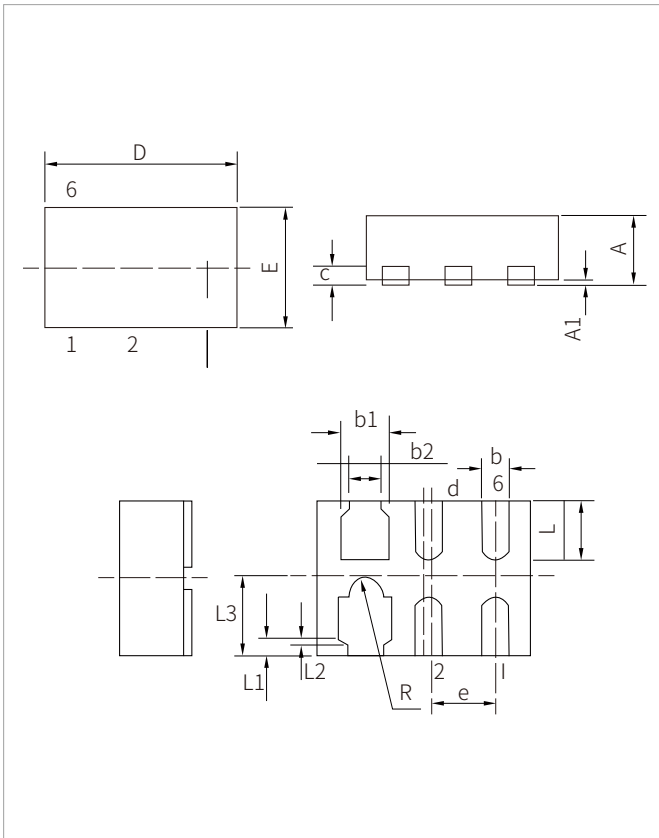


## SOLDERING PARAMETERS

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) ( $t_s$ )	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

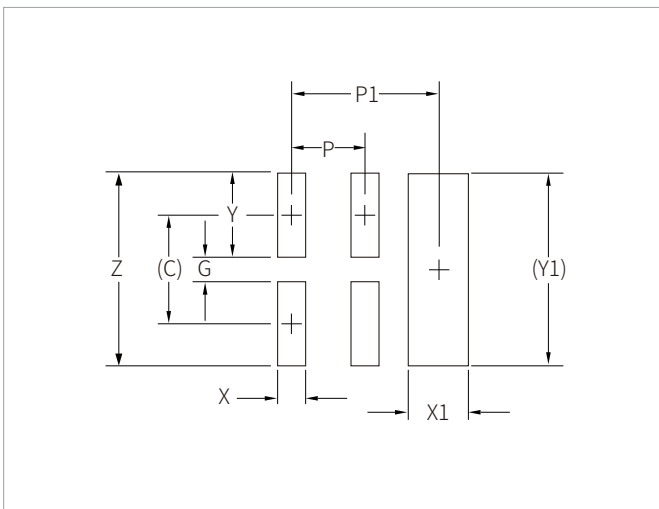


## DFN1610-6L PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.40	0.60	0.016	0.024
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	1.50	1.70	0.060	0.067
e	0.50BSC		0.020BSC	
E	0.90	1.10	0.035	0.043
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
SE16P6F10B3.3MA	DFN1610-6L	3000PCS	7"

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**By QR Code**

Website



Wechat

To find your local partner within Semiware' s global website: [www.semiware.com](http://www.semiware.com)

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