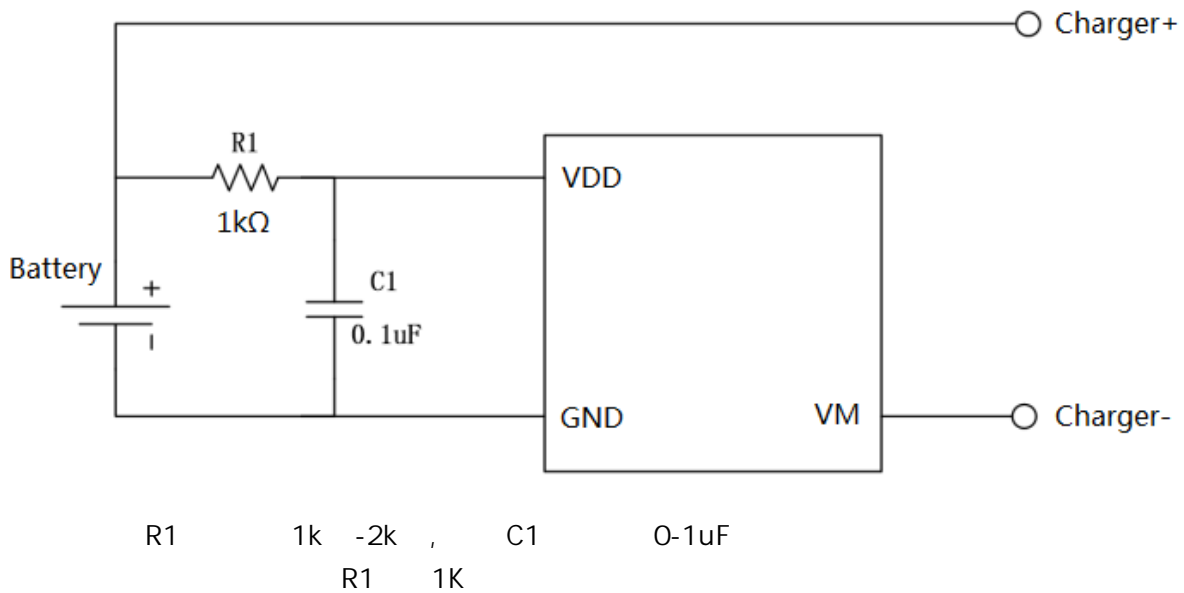


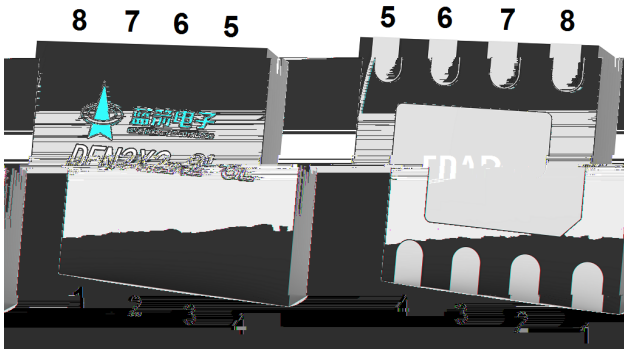
BRCL3130DZZ      MOSFET  
 MOSFET

BRCL3130DZZ      DFN 2× 2-8L

- ◆ 16m      MOSFET
- ◆ DFN 2× 2-8L
- ◆
- ◆
- ◆ 3.5  $\mu$ A
- ◆ 0.6  $\mu$ A
- ◆

Single lithium ion rechargeable battery pack, single lithium polymer rechargeable battery pack.





Pin Number	Pin Name	Pin Description
1	VDD	
2,3,4	GND	
5,6,7,8	VM	
EPAD	GND	

See Marking Instructions.

/Parameter	/Symbol	/Value	/Unit
V <sub>DD</sub> input pin voltage	V <sub>IN</sub>	-0.3 to +8	V
V <sub>VM</sub> input pin voltage	V <sub>VM</sub>	-8 to +10	V
Maximum Junction Temperature	T <sub>J</sub>	-40 to +145	
Storage Temperature	T <sub>stg</sub>	-55 to +145	
ESD HBM Mode	ESD	4000	V

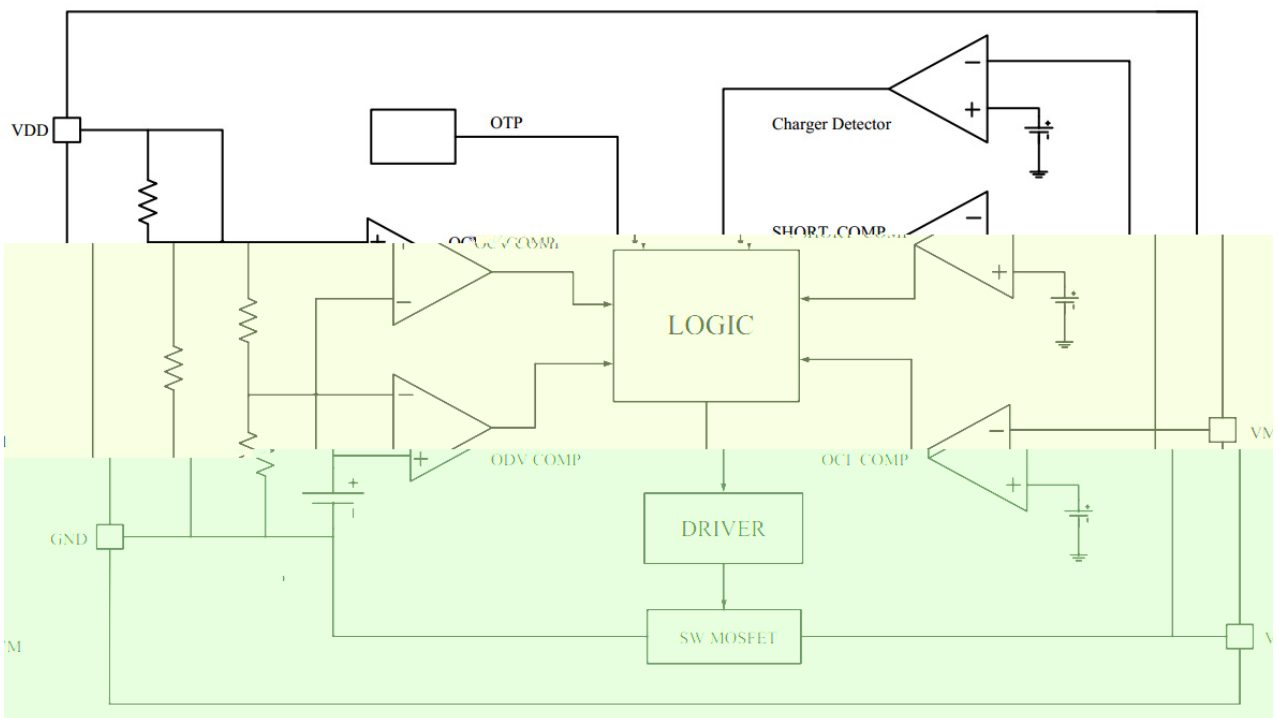
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Supply Voltage	V <sub>DD</sub>		0		6	V
Charger input voltage	V <sub>M</sub>		-6		6	V
Overcharge Detection Voltage	V <sub>OCV</sub>		4.25	4.3	4.35	V
Overcharge Release Voltage	V <sub>OCR</sub>		4.04	4.10	4.16	V
Overdischarge Detection Voltage	V <sub>ODV</sub>		2.30	2.40	2.50	V
Overdischarge Release Voltage	V <sub>ODR</sub>		2.90	3.00	3.10	V
Overdischarge Current Detection	I <sub>OCI</sub>		9	11.5	14	A
Load Short-Circuiting Detection	I <sub>SHORT</sub>		15	25	35	A
Overcharge Current Detection	I <sub>CHA</sub>		7	10	13	A
Current Consumption in Normal Operation	I <sub>OPE</sub>	V <sub>M</sub> =0V		3.5	7	μA
Current Consumption in Dormancy	I <sub>PDN</sub>	V <sub>DD</sub> =1.8V		0.6	1.5	μA
Internal pull-up current	I <sub>PU</sub>			14		μA
Internal pull-down current	I <sub>PD</sub>	V <sub>M</sub> =1V		14		μA
Equivalent FET on Resistance	R <sub>DS</sub>	I <sub>VM</sub> =1A	12.5	16	18	mΩ

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Over-temperature protection	OTP			145		
Over-temperature protection release temperature	OTPR			120		
Overcharge Voltage Detection Delay Time	T <sub>OCV</sub>			100		ms
Overdischarge Voltage Detection Delay Time	T <sub>ODV</sub>			100		ms
Overdischarge Current1 Detection Delay Time	T <sub>IOV1</sub>			8		ms
Overdischarge Current2 Detection Delay Time	T <sub>IOV2</sub>			2		ms
Load Short-Circuiting Detection Delay Time	T <sub>SHORT</sub>			150		μs

\* (OTP)

OTPR

\*



/

BRCL3130DZZ

MOSFET

16m

BRCL3130DZZ

/

/

			(V <sub>OCV</sub> )	
(T <sub>OCV</sub> )	BRCL3130DZZ	MOSFET		
	(T <sub>OCV</sub> )			
1	VM		(V <sub>CHA</sub> )	(V <sub>OCR</sub> )
2			(V <sub>OCV</sub> )	

/ Overcharge Current Condition

	I <sub>CHA</sub>	(T <sub>OCI</sub> )	MOSFET
	BRCL3130DZZ		

/

			(V <sub>ODV</sub> )	
(T <sub>ODV</sub> )	BRCL3130DZZ			
	MOSFET		VDD	2.3V ( )
	(I <sub>PDN</sub> )		VDD	2.4V ( )
			(V <sub>ODR</sub> )	BRCL3130DZZ

/

			VM
VM			

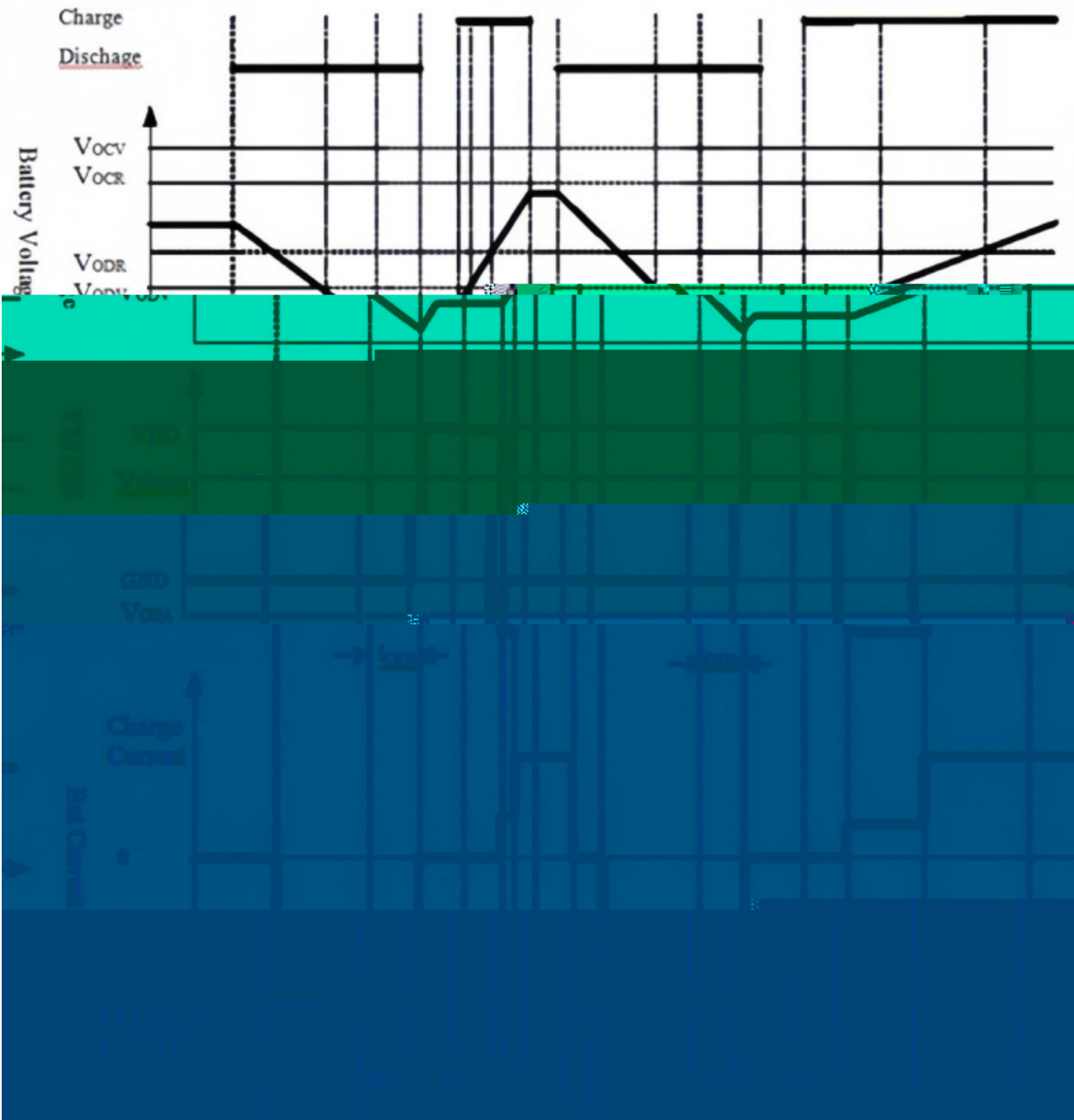
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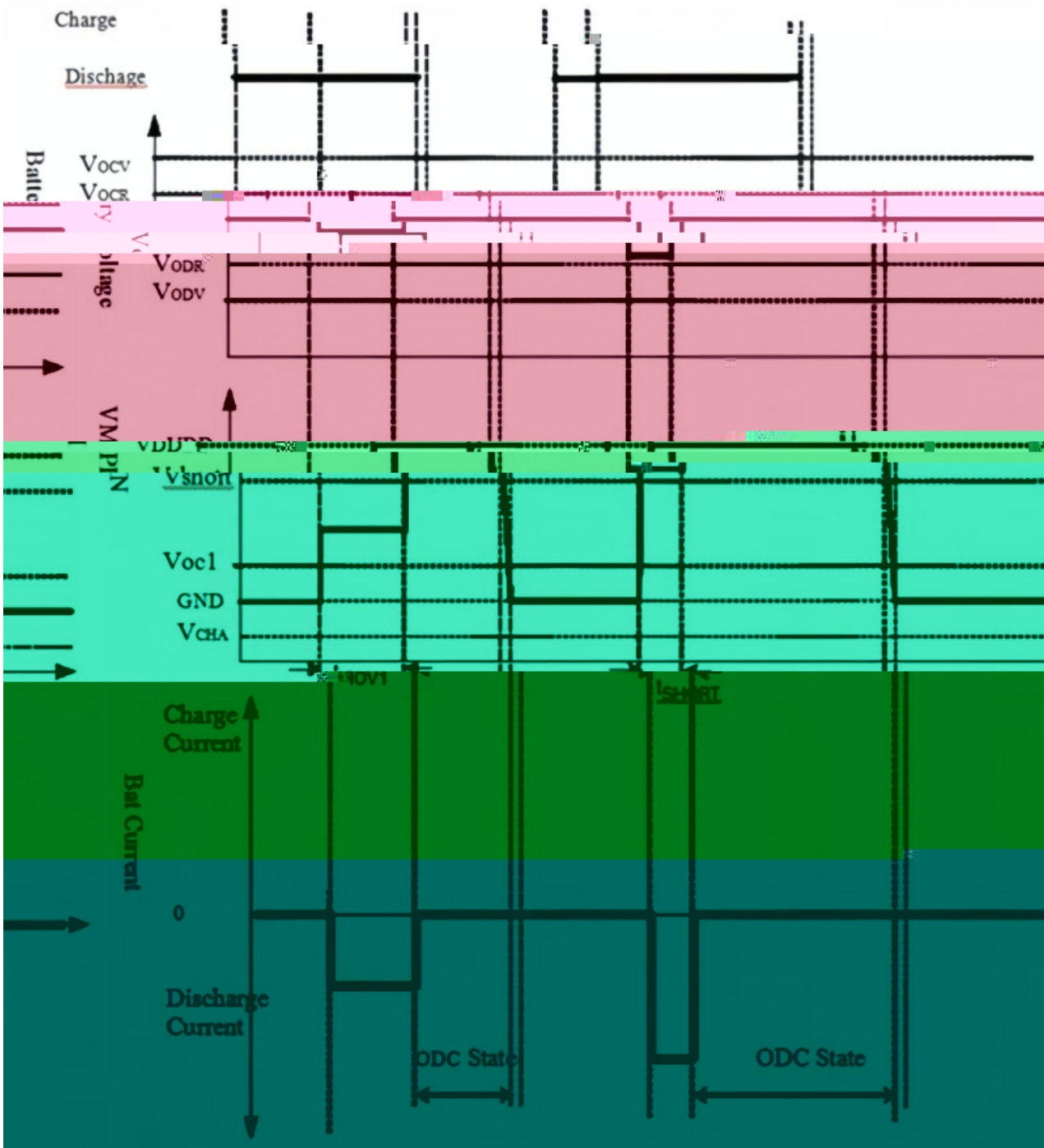
	VM	(V <sub>SHORT</sub> )
T <sub>SHORT</sub>		VM



/

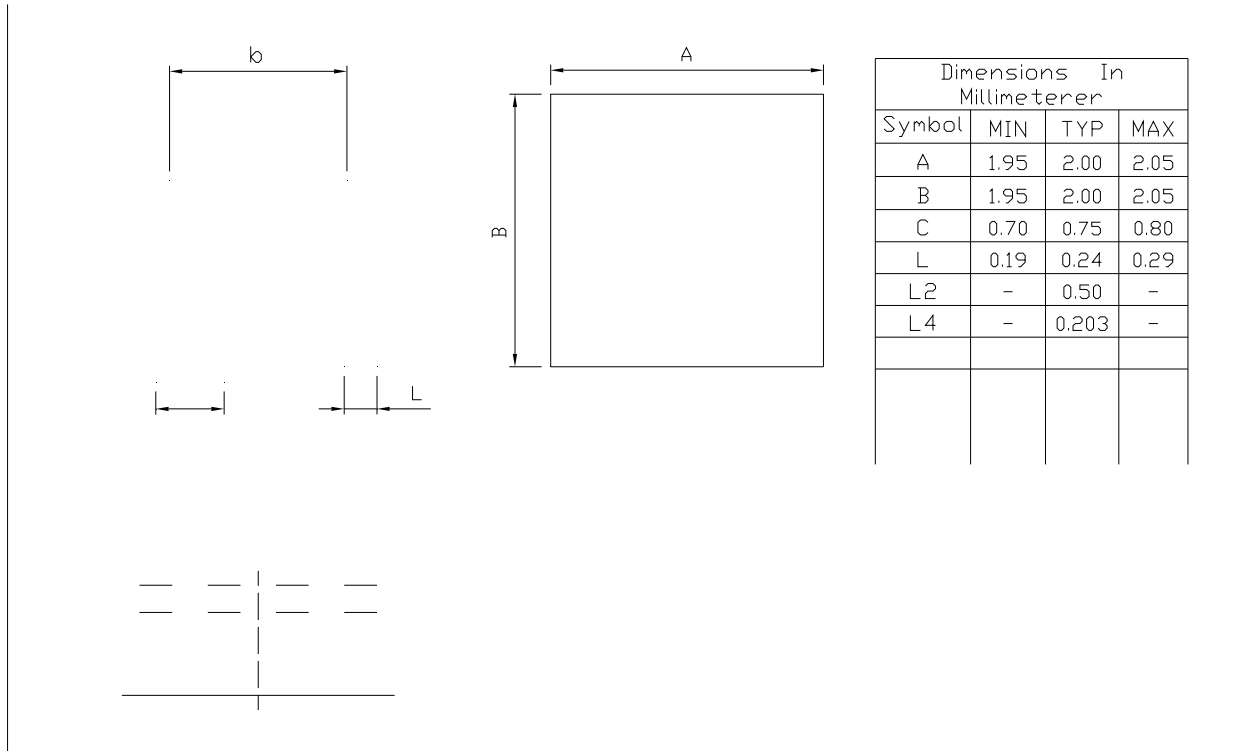
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DFN2x2-8L-0.75

Unit:mm



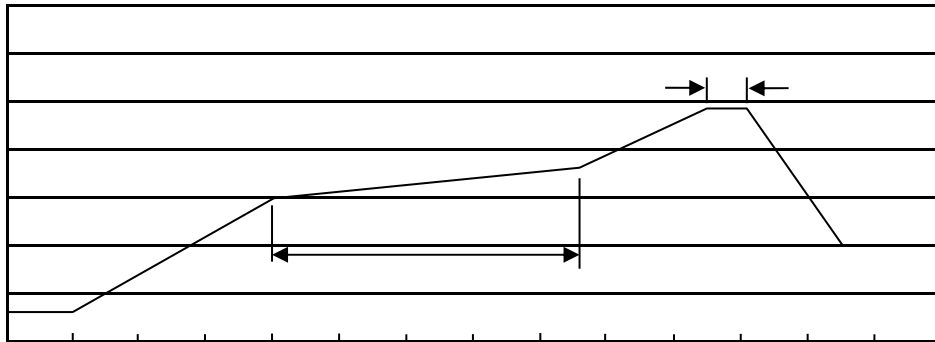
Dimensions In Millimeterer			
Symbol	MIN	TYP	MAX
A	1.95	2.00	2.05
B	1.95	2.00	2.05
C	0.70	0.75	0.80
L	0.19	0.24	0.29
L2	-	0.50	-
L4	-	0.203	-

Rev.00 202012



3130D

\*\*\*\*

**Temperature Profile for IR Reflow Soldering(Pb-Free)**


Note:

- |   |         |           |                                         |
|---|---------|-----------|-----------------------------------------|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec.   |
| 2 | 245±5   | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | 2 10    | /sec.     | 3. Cooling Speed: 2~10 /sec.            |

260±5

10±1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
DFN2x2-8L	4,000	10	40,000	4	160,000	7 x8	210x205x205	445x435x230

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