

/ Descriptions

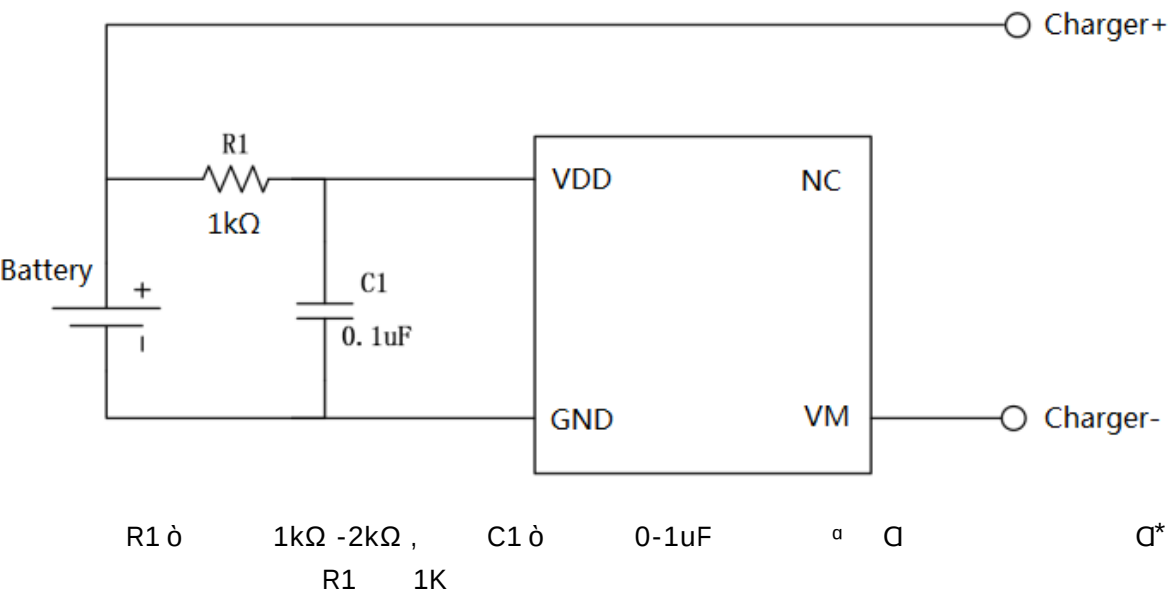
BRCL3130DME	MOSFET	Q	Q τ	H _i	H _j
MOSFET	Q				
BRCL3130DME	SOT23-5			τ	

/ Features

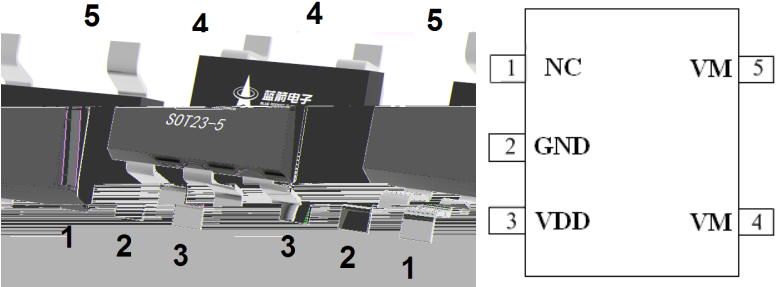
- ◆ 16mΩ MOSFET
- ◆ SOT23-5
- ◆
- ◆
- ◆ 3.5 μA
- ◆ 0.6 μA
- ◆

/ Applications

/ Typical Application



/ Pinning



Pin Number	Pin Name	Pin Description
1	NC	
2	GND	Q
3	VDD	
4,5	VM	

/ Marking

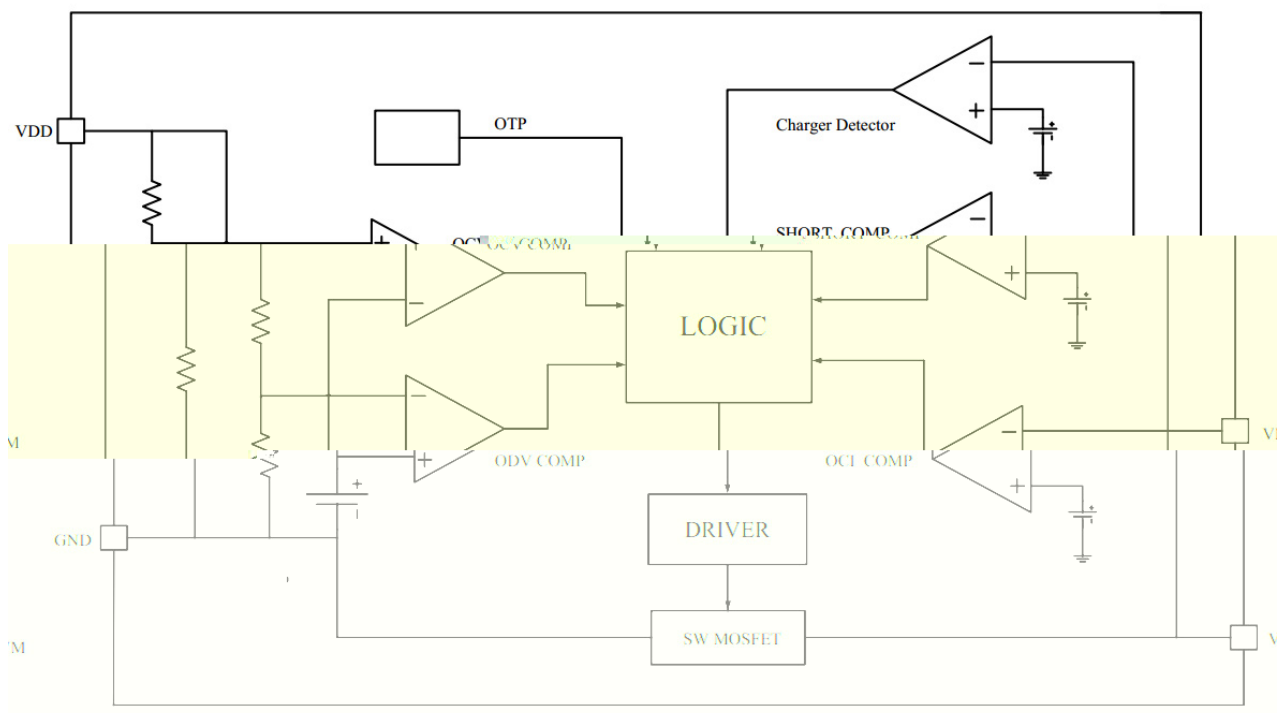
See Marking Instructions.



/Parameter	/Symbol	/Value	Ⓜ /Unit
V _{DD} input pin voltage	V _{IN}	-0.3 to +8	V
V _{VM} input pin voltage	V _{VM}	-8 to +10	V
Maximum Junction Temperature	T _J	-40 to +145	
Storage Temperature	T _{stg}	-55 to +145	
Power Dissipation	P _D (T _C)		

/ Electrical Characteristics(Ta=25)

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

Functionl Block Diagram


Functional Description					
BRCL3130DME í					
Q			MOSFET	ε	16mΩ
BRCL3130DME	*				
Normal Operating mode					
*					
Overcharge Voltage Condition					
*				(V _{ocv})	
(T _{ocv})	BRCL3130DME	í	MOSFET	β	
		(T _{ocv})	π		
1	VM	Η		(V _{CHA})	(V _{OCR})
2				(V _{ocv})	

Charger Detection

V_M
 (V_{ODV}) BRCL3130DME

(V_{CHA})

0V Battery Charging Function

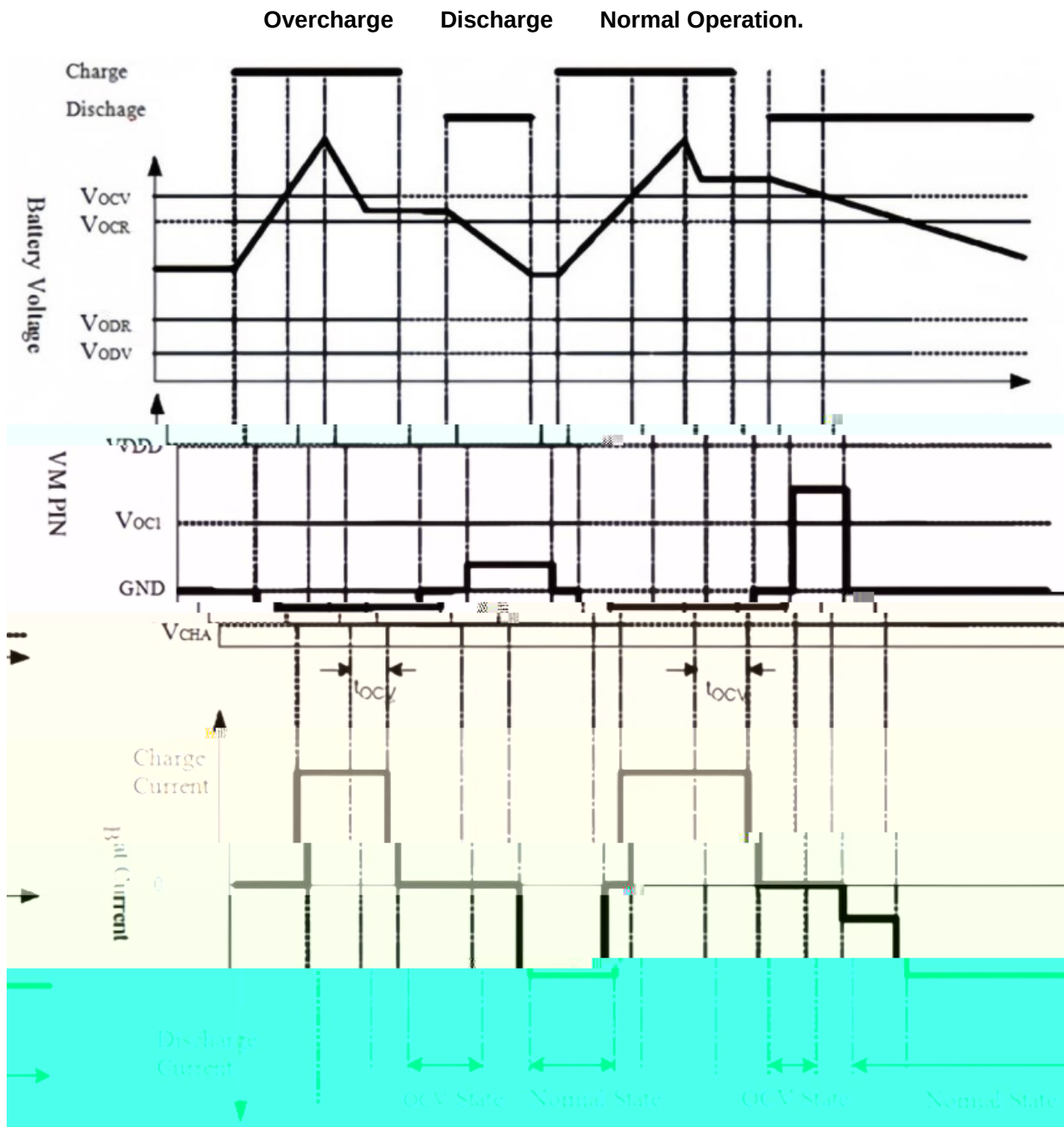
0V
 H_1 2.3V

H_2 2.3V
200mA

% MOS
 D

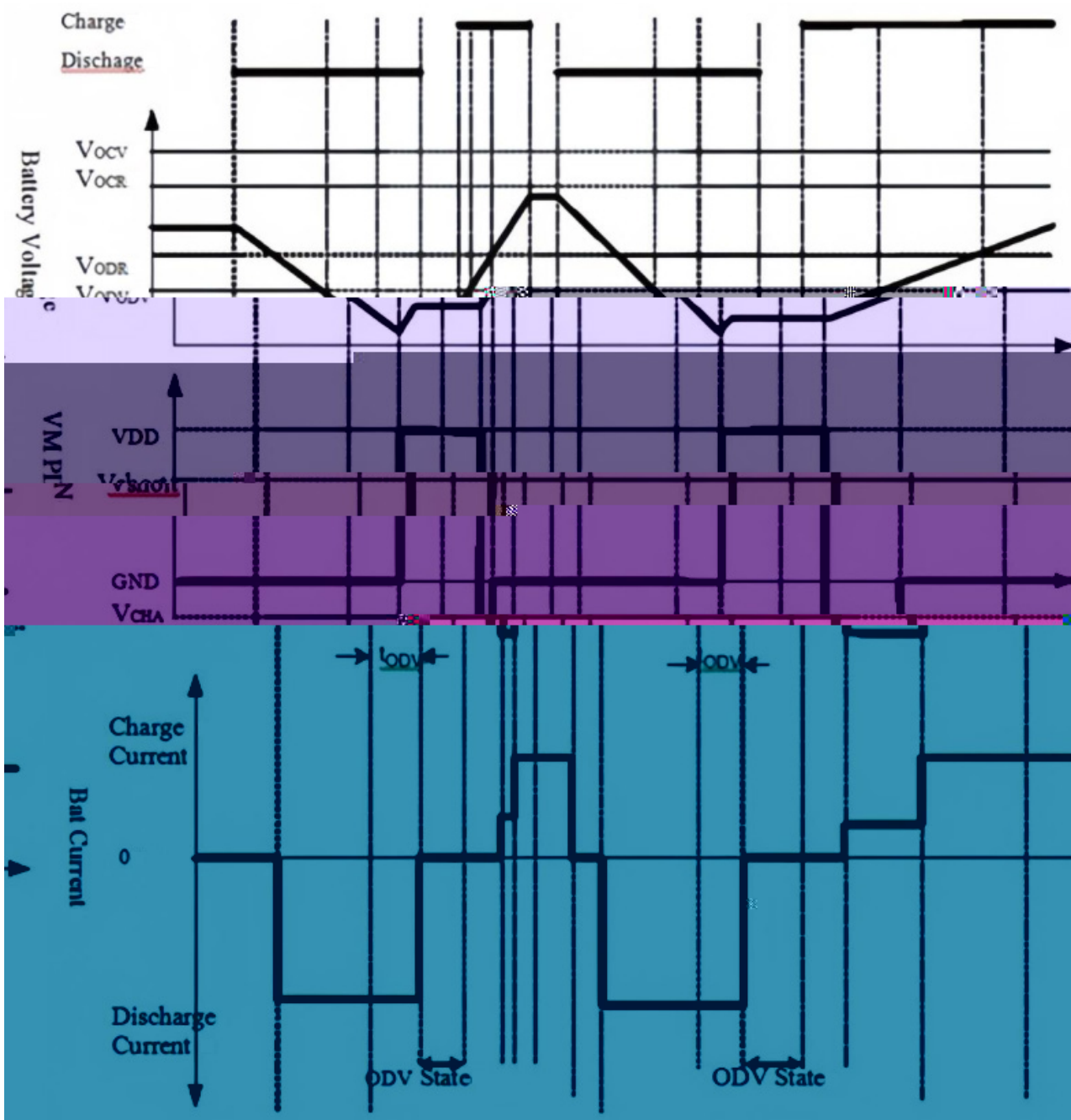
D

Timing Chart

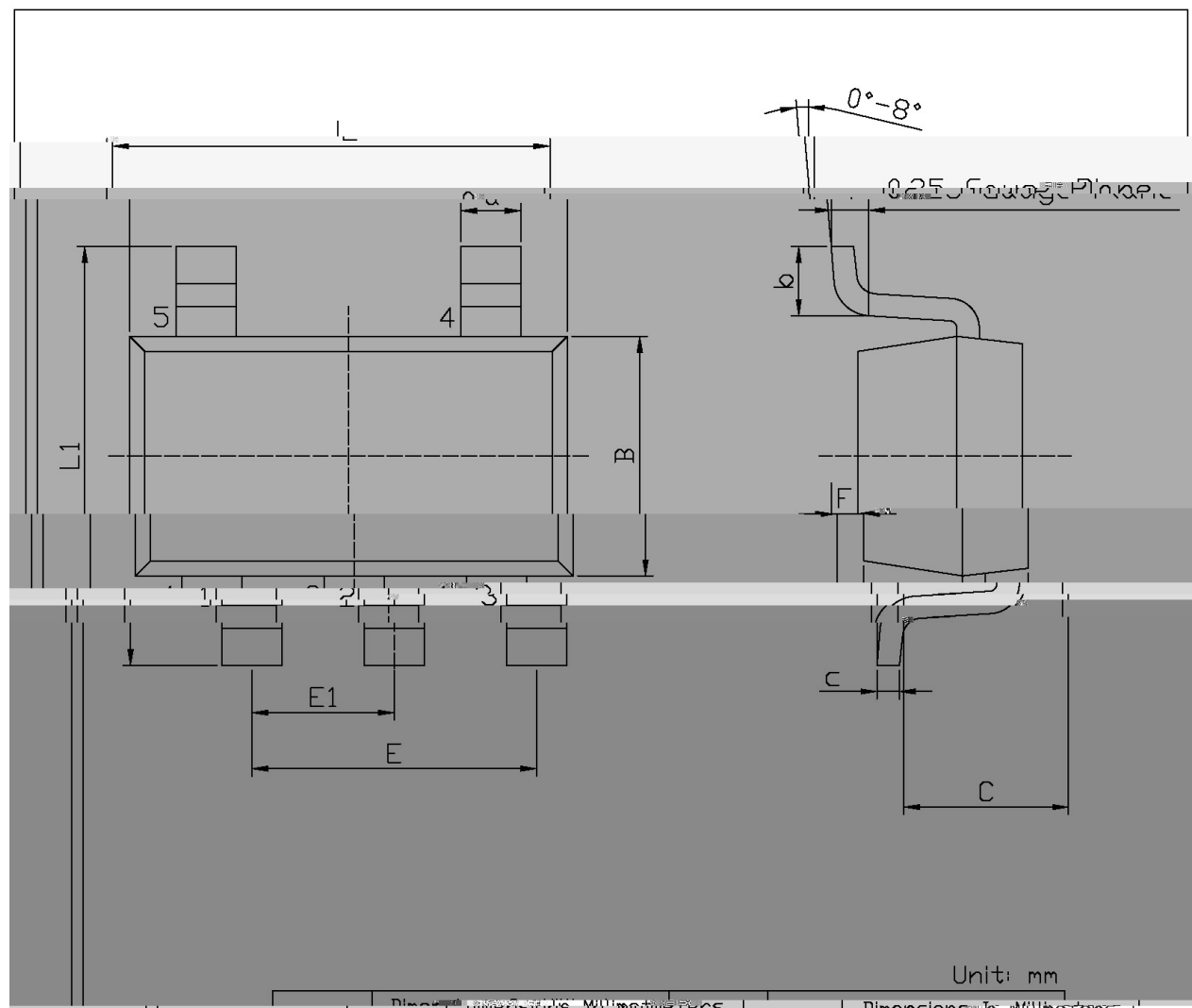


Timing Chart

Overdischarge Charging Normal Operation.

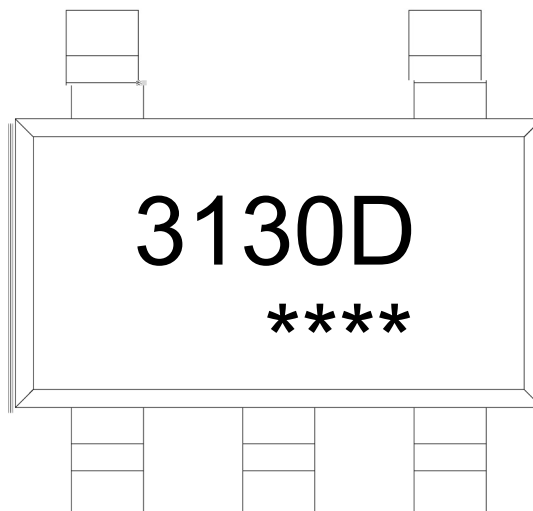


/ Package Dimensions



Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
L	2.82	3.02	E1	0.85	1.05
B	1.50	1.70	a	0.35	0.50
C	0.90	1.30	c	0.10	0.20
L1	2.60	3.00	b	0.35	0.55

/ Marking Instructions



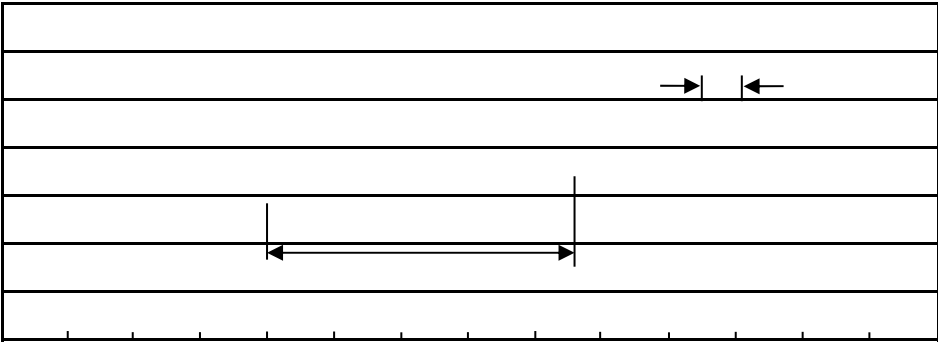
3130D

Note:

3130D: Product Type Code

****: Lot No. Code, code change with Lot No.

() /



Note:

- 150 180 60 90sec;

245±5 5±0.5sec;

2 10 /sec.
- 1.Preheating:150~180 , Time:60~90sec.

2.Peak Temp.:245±5 , Duration:5±0.5sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
DT23-5/6	3,000	10	30,000	4	120,000	7 ×8	210×205×205	445×435×230

/ Notices