



昌 勳 股 份 有 限 公 司

Dr . POWER CORPORATION

零 件 規 格 書 / 承 認 書

SPECIFICATION FOR APPROVAL

CUSTOMER : \_\_\_\_\_

DESCRIPTION : Battery Pack

MODEL : DR-202-35E

CUSTOMER PART NO : \_\_\_\_\_

**APPROVED SIGNATURES**

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Rev	Date	Description	Designed	Checked	Approved
A	2019/11/5	Release		Kevin	

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# Specification

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OUR MODEL	DR-202-35E	Date	2019/11/1
OUR P/N	-	Rev.	1.1

1. Scope

This specification shall be applied to the lithium battery to be supplied by DPC. The battery pack is use for Tablet Products

2. Name and Model

Customer Model Name :

Model Name : DR-202-35E

Cell Type : INR 18650-35E

Cell Configuration : 3S-3P

3. Product Specification

No	Item	Rate performance	Remark
1	Typical capacity	10050 mAh	Discharge at 3.25A until cell voltage under 2.5V
2	Normal voltage	10.8 V	
3	Charge voltage	12.6 V	
5	Continuous charge current	5 A	
6	Continuous discharge current	10 A	Max continuous Power $\leq$ 100W at 50°C
7	Maximum peak discharge current	16 A	
8	Suggest system cutoff voltage	9V	
9	Operation temperature	Charge 0~45°C	
		Discharge -10~60°C	
10	Storage temperature	0~40°C	Storage less than 3 months
11	Power consumption		If the battery need to storage in the long term, please charge the battery once time between half year, that can above the battery over discharge by itself, it will keep the battery more healthy.
	normal mode	Average $\leq$ 800 $\mu$ A	
	sleep mode	$\leq$ 300 $\mu$ A	
	shutdown mode	$\leq$ 1 $\mu$ A	

4. Protection Function of Protect IC(Ta = 25°C)

Function item	Control function and operation	Remark
Over charge detection voltage	4.25 $\pm$ 0.01 V	
Over charge delay time	1~3 Sec	
Over charge release voltage	4.1 $\pm$ 0.1 V	
Over discharge detection voltage	2.8 $\pm$ 0.1 V	
Over discharge delay time	2~4 Sec	
Over discharge release voltage	3.2 $\pm$ 0.1 V	
Over charge prohibition current	6 $\pm$ 0.5 A	
Over charge prohibition delay time	2~4 Sec	
Over discharge prohibition current 1 <sup>st</sup>	16 $\pm$ 0.5 A	
Over discharge prohibition 1 <sup>st</sup> delay time	4~7 Sec	
Over discharge prohibition current 2 <sup>nd</sup>	18 $\pm$ 0.5 A	
Over discharge prohibition 2 <sup>nd</sup> delay time	2~4 Sec	
Hardware discharge prohibition current	25 $\pm$ 1 A	
Over discharge prohibition 2 <sup>nd</sup> delay time	4~7 mSec	
Short protection delay time	122 $\pm$ 300 uSec	

Over temperature of charge	55 ± 3 °C	
Delay of charge over temperature	2~4 Sec	
Release temperature of charge	50 ± 3 °C	
Over temperature of discharge	65 ± 3 °C	
Delay of discharge over temperature	2~4 Sec	
Release temperature of discharge	60 ± 3 °C	
Under temperature of charge	0 ± 3 °C	
Delay of charge under temperature	2~4 Sec	
Release temperature of charge	5 ± 3 °C	
Under temperature of discharge	-10 ± 3 °C	
Delay of discharge under temperature	2~4 Sec	
Release temperature of discharge	-5 ± 3 °C	

#### 5. Protection Function of Permanent Fail(Non-recoverable)

Function Item	Control Function and Operation	Remark
Over charge detection voltage	Anyone cell ≥ 4.4 V	15 Sec
Over Temperature Protect	Mosfet Temp ≥ 95°C	5 Sec
	Cell Temp ≥ 75°C	5 Sec
FET Failure	C-FET cut off & current > 100 mA	10 Sec
	D-FET cut off & current > -10 mA	

#### 6. Connect Pin Define

Name	Function	Remark
1	P+	
2	SMBus Clock	
3	SMBus Data	
4	ID	390Ω connect to P-
5	P-	

#### 7. Handling Warning

The battery used in this device may present a risk of fire or chemical burn if mistreated. Do not disassemble heat above 60°C, Crush or puncture short circuit external contacts, or dispose in fire or water.

電池組在以下情況使用可能造成起火或是爆炸情況產生，禁止操作環境超過60度、輾壓、刺穿電池組、外部短路、丟入水中及火源。

#### 8. Storage Condition

In case of long storage less than 1 month, store the battery at temperature range -20 ~ +50, low humidity(less than 70%RH).  
儲存時間低於一個月，建議儲存溫度-20 ~ 50度，濕度<70%。

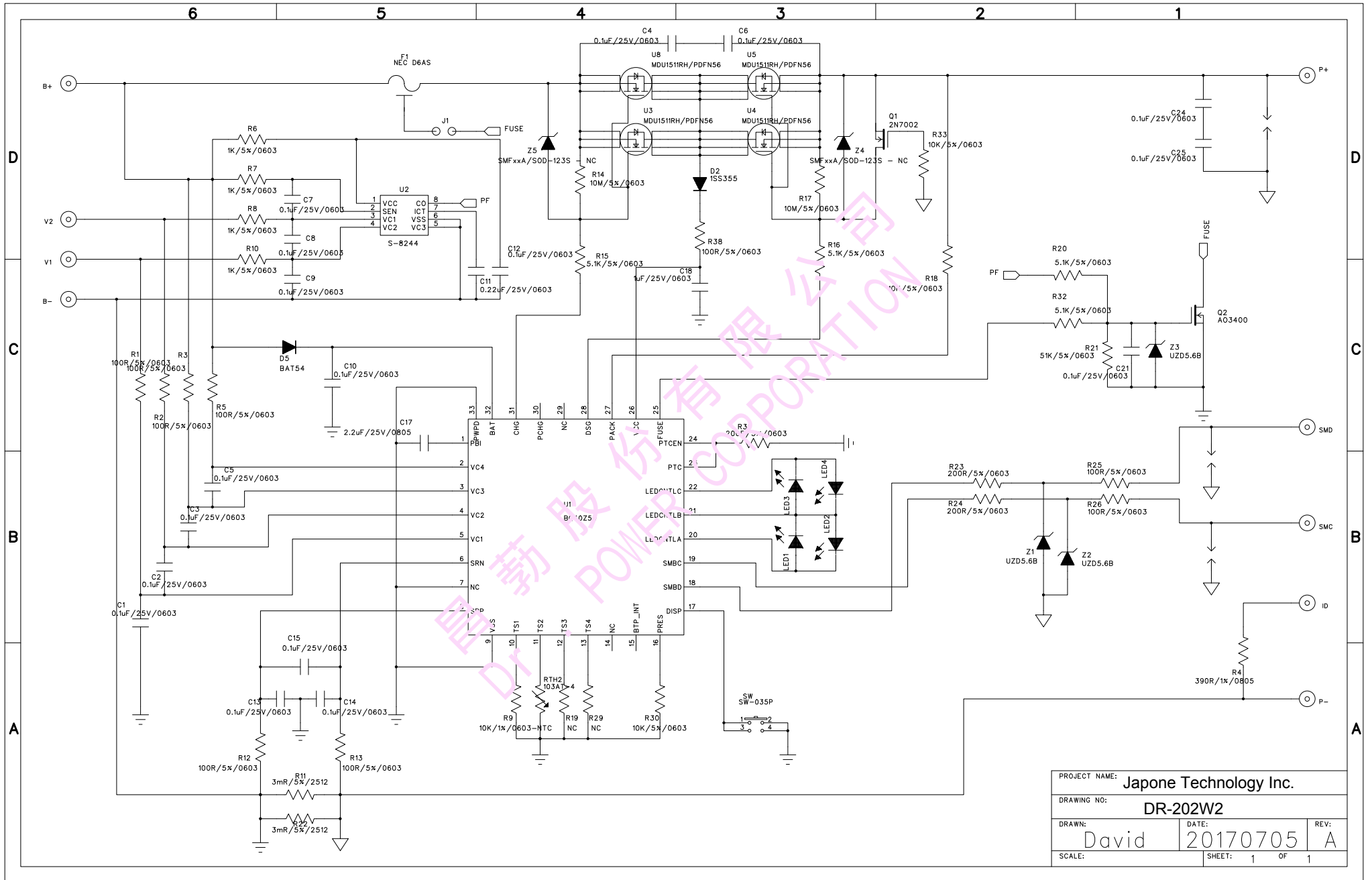
In case of long storage less than 3 months, store the battery at temperature range 0 ~ +40, low humidity(less than 70%RH).  
儲存時間低於三個月，建議儲存溫度0 ~ 40度，濕度<70%。

In case of long storage more than 3 months, store the battery at temperature range 0 ~ +20, low humidity(less than 70%RH).  
儲存時間高於三個月，建議儲存溫度0 ~ 20度，濕度<70%。

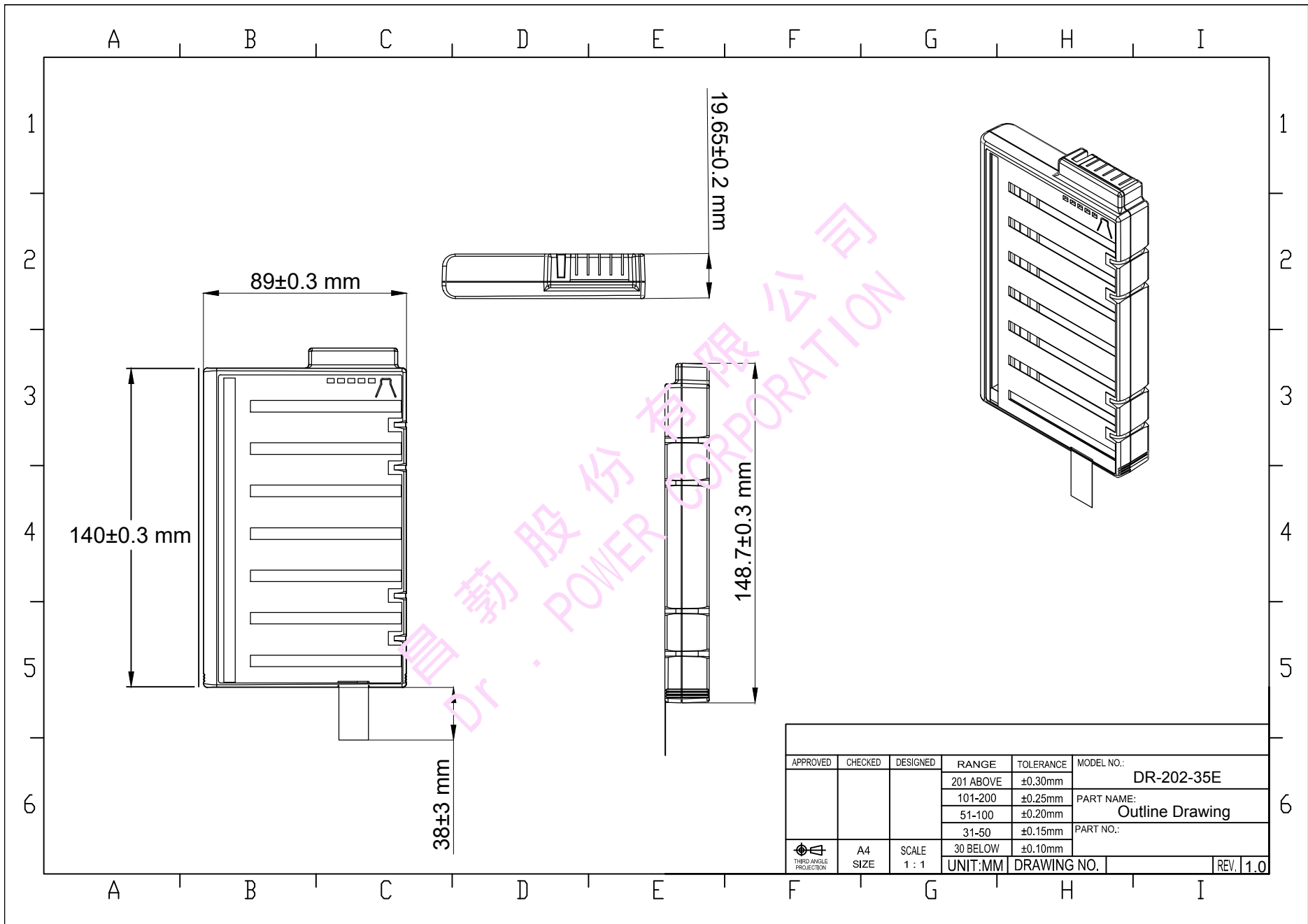
#### 9. Disposal Consideration

Recommended methods for safe and environmentally preferred disposal : Product (waste from residues) Do not throw out a used battery cell. Recycle it through the recycling company. Contaminated packaging Neither a container nor packing is contaminated during normal use. When internal materials leaked from a battery cell contaminates, dispose as industrial wastes subject to special control.

廢棄物建議的處理方式：不要隨意丟棄使用過的鋰電池，應交由專業的回收公司處理。電池在正常使用情況下，電池並非是污染品，但是當電池有漏液、破損現象，請根據工業污染品規定報廢處理



PROJECT NAME: Japone Technology Inc.			
DRAWING NO: DR-202W2			
DRAWN: David	DATE: 20170705	REV: A	
SCALE:	SHEET: 1	OF 1	



APPROVED	CHECKED	DESIGNED	RANGE	TOLERANCE	MODEL NO.:
			201 ABOVE	±0.30mm	DR-202-35E
			101-200	±0.25mm	PART NAME:
			51-100	±0.20mm	Outline Drawing
			31-50	±0.15mm	PART NO.:
			30 BELOW	±0.10mm	
THIRD ANGLE PROJECTION	A4 SIZE	SCALE 1:1	UNIT:MM	DRAWING NO.	REV. 1.0

黑底白字

霧面PC, THK = 0.25 mm

# LI-ION RECHARGEABLE BATTERY PACK

MODEL: DR-202-35E

DC 10.8V 10050mAh 108.5Wh

Japone Technology Inc.

3ICR19/66-3

Made in Taiwan

## CAUTION!

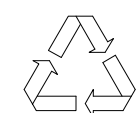
When damaged, replace only with the same or equivalent type of battery pack recommended by the manufacturer. Do not attempt to open. Danger of explosion if battery is incorrectly placed near heat source or immerse in liquid. Any misuse of battery pack could cause fire, explosion and personal injury.

## ATTENTION

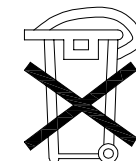
Maintenez la batterie éloignée de toute flamme. Évitez de la mettre en court-circuit. N'essayez jamais de démonter la batterie. Utilisez les chargeurs prévus pour charger la batterie. Risque d'explosion si la batterie est remplacée par un type incorrect. Éliminez les batteries usagées conformément aux instructions.

## 警告！

電池損壞時，請更換與原廠規格相等的電池。  
請勿打開電池外殼，且不要暴露於高溫、高熱處，不可放入液體中。  
假如誤用可能會引起燃燒、爆炸或傷及人體。



Li-Ion

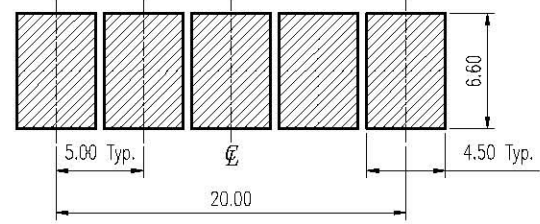




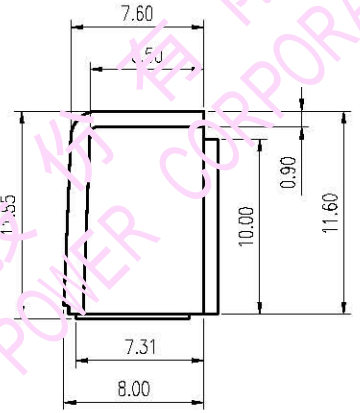
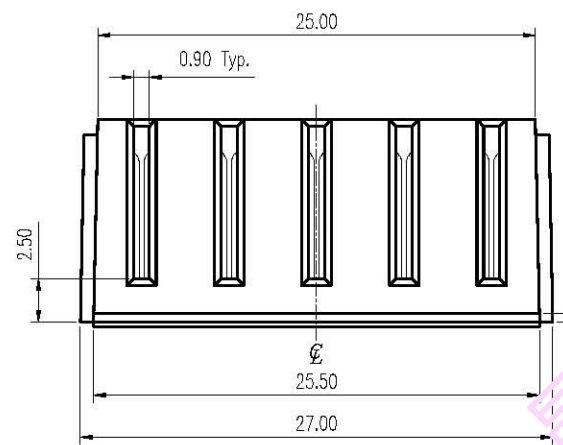
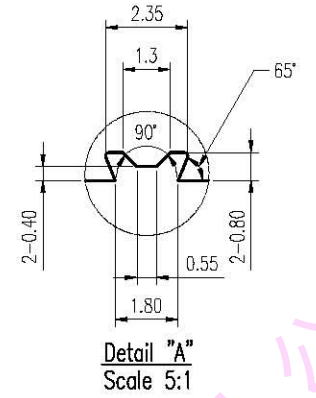
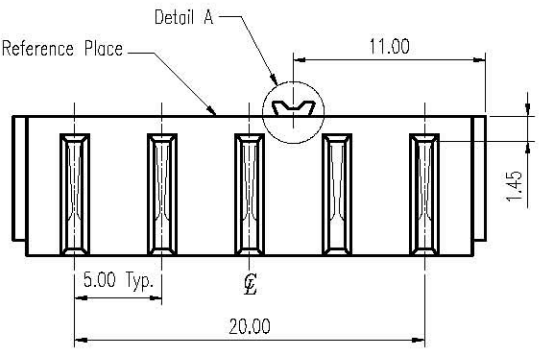
REV.	DESCRIPTION	ECN NO.	DATE	DRAWER
B	Modified by Customer Design	EC0606034	06/14/2006	Edsen
C	Add Plating Option $\triangle$ x1	EC0908043	08/18/2009	Hyde
D	Add Logo Reference Place $\triangle$ x3	EC1111001	11/08/2011	Judy

Notes:

- Material:  
Housing: Thermoplastic UL 94V-0, Black  
Terminal: Copper Alloy
- Finish:  
 $\triangle$ D Terminal: Selected Gold or Tin on Contact Area, G/F or Tin on Solder Tails, Both over 50u" Min. Nickel Under-plated Overall
- Order Information :  
T: RoHS (for High Temperature)  
Amount of Pins  
05: 5 Pins  
Plating Option  
 $\triangle$ 0: 15u" Min. Ni Overall  
 $\triangle$ 1: G/F Overall  
 $\triangle$ 3: 5u" Min. Gold on Contact Area.  
 $\triangle$ Y: 80u" Min. Tin Overall



Recommended P.C.B. Layout  
Layout Tolerance =  $\pm 0.05$ mm



DIMENSION IN mm [inch]	
Tolerance unless otherwise specified	
X.	X.* $\pm 10'$
X.X $\pm 0.38$	X.X* $\pm 5'$
X.XX $\pm 0.25$	X.XX* $\pm 2'$
X.XXX $\pm 0.13$	X.XXX* $\pm$

CUSTOMER DRAWING		Title	5.0mm Pitch Battery Conn. Female Type	
		Dwg No.	TSD0-02105-10TX	
Approver:		Checker:	Drawer: Judy	Rev : D
				11/08/2011