

# CHINVAY

## APPROVAL SHEET

CUSTOMER :

ITME : 3PIN 电池连接器

MODEL : BC-2.5-3C-S

MATERIEL NO:

DATE : 08/08/2007

APPROVED BY:

### 深圳市创宇伟业科技有限公司

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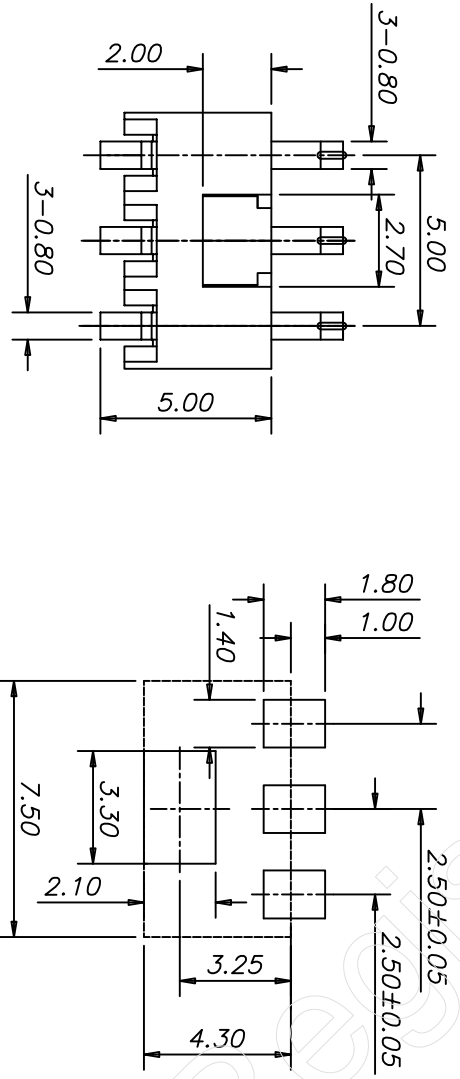
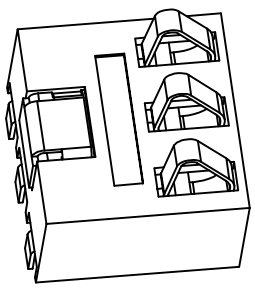
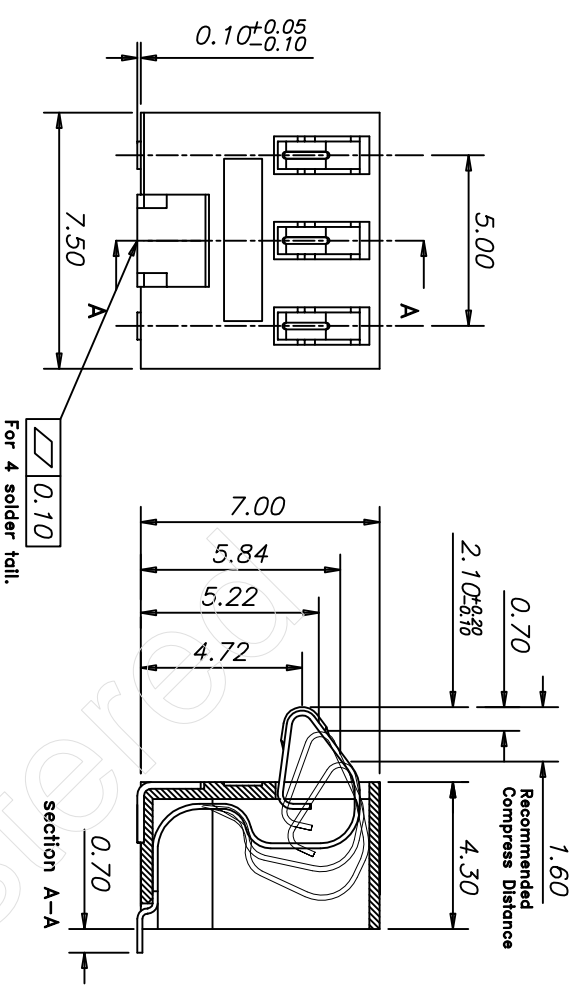
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REVISIONS				
STEP	ECN	DESCRIPTION	DATE	APPROVED
001	ECN	RELEASE TO CUSTOMER	06/02/06	Abin



RECOMMENDED PCB LAYOUT

BC-2.5-3C-S  
 Battery Connector  
 Pitch header  
 Agnomen  
 Position

NOTES:

- MATERIAL:  
 A. PIN: ALLOY COPPER  
 B. INSULATOR: HIGH TEMPERATURE THERMOPLASTIC  
 UL94V-0, BLACK.
- FINISH:  
 50-100 MICRONS (1.27-2.54 MICRON) NICKEL UNDERPLATED ALL OVER,  
 15 MICRONS (0.38 MICRON) GOLD PLATED AT MATING AREA, 50-100  
 MICRONS (1.27-2.54 MICRON) MATTE TIN PLATED AT SOLDER TAIL
- ELECTRICAL SPECIFICATIONS:  
 VOLTAGE RATING: 250 VAC MIN  
 CURRENT RATING: 2.0 A MIN  
 DIELECTRIC STRENGTH: 1000 VAC FOR 1 MINUTE MIN  
 INSULATION RESISTANCE: 1000 MEG OHM MIN  
 CONTACT RESISTANCE: 30 MILLI OHM MAX  
 OPERATION TEMPERATURE: -55°C TO +125°C  
 PRODUCT WITHSTANDING REFLOW SOLDERING: 260°C FOR 10S
- MECHANICAL SPECIFICATIONS:  
 4.1 DURABILITY: 5,000 CYCLES  
 4.2 NORMAL FORCE AT WORKING POSITION: 80g MIN.  
 5. PARTS TO BE PACKAGED IN ANTI-STATIC TAPE AND REEL  
 FOR AUTOMATIC PLACEMENT.
- THE CAVITY# IS 0.8±0.10mm HIGH WITH 0.10±0.10mm RECESSED  
 FROM SURFACE.
- COPPLANARITY IS 0.10MAX FOR 4 SOLDER TAIL.

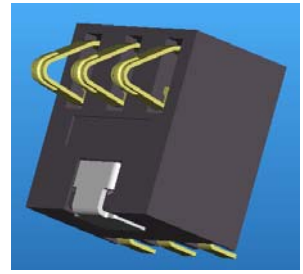
DIM	TOL	DIM	TOL
x		x	±2°
.x	±0.10	.x	±1°
.xx	±0.05	.xx	±1°
.xxx	±0.03	.xxx	±1°

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FILE NO.	DATE	TITLE: Battery Connector
DESIGN:		P/N: BC-2.5-3C-S
CHECK:		SHEET: 1/1
REV. V0.0	APPROVAL:	SCALE: 1:1
		UNIT: mm

系列类型	BATTERY CONNECTOR	编写 WRITN BY:	审核 CHECKED BY	批准 APPROVED BY
型号	BC-2.5-3C-S	Zhang Ming	Zhang BO	Wang Wei
VERSION 版本:	V0.1			
DATE 日期:	2007.10.26	2007.10.25	2007.10.25	2007.10.26

1. SCOPE 适用范围  
 This specification covers the requirements for: "BATTERY CONNECTOR"  
 本规格书适用: "BATTERY CONNECTOR" 系列



2. Rating 额定值: DC 250V 2A

3. CONSTRUCTION 构造

3.1 Shape and dimensions are subject to drawing.  
 形状.尺寸根据图面确定.

3.2 All part not allowed to exist rust 、 crack and poor planting.  
 各部分无生锈、裂痕、电镀不良现象.

4. Standard test conditions shall be 5 to 35°C in temperature and 45 TO 85% in humidity.  
 温度 5~35°C , 湿度 45~85% 标准状态下测试.

5. Electronical performance 电气性能

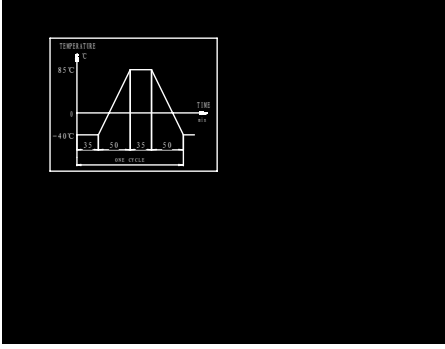
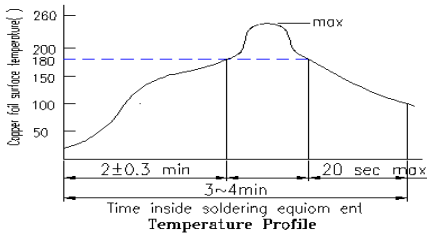
Item 项目	Test condiction 测试条件	Performance 规格
5.1 Contact resistance 接触阻抗	Being measured at 1 KHz small current contact resistance meter. 在 1kHz 小电流下测量。	30mΩ max. 30 毫欧 以下。
5.2 Insulation resistance 绝缘阻抗	Measurements shall be made following application of DC 500 V potential across terminals and across terminals and frame for 1 minute. 在端子之间和端子与壳之间加 DC 500 V 条件下,持续 1 分钟测量。	1000MΩ min. 1000 兆欧 以上。
5.3 Withstand voltage 耐电压	AC 1000 V(50Hz or 60 Hz)shall be applied across terminals and across teminals and frame for one minute. 在端子之间和端子与壳之间加 AC 1000 V (50Hz 或 60Hz)条件下,持续 1 分钟测量。	There shall be no breakdown 无击穿现象出现.

6. Mechanical performance 机械性能

6.1	Contact force 接触压力	Positive direction pressure press down at 1.6mm, the force is 80g/Pin min 用工具压簧片(单片)1.6mm,测量压力。	contact force: ≥80g/pin
6.2	Range 使用温度范围	Operation temperature 在-55~+125°C温度内使用	

7. Durability 耐久性

7.1	Lift test 寿命试验	5,000 cycles of operation at a rate of 10-20 cycles per minute with unloading 在无负载条件下,以每分钟 10—20 次的速度操作 5,000 次。	(1) Contact resistance 接触阻抗 100mΩ max.100 毫欧 以下 (2) 其它满足机械,电气性能.
7.2	Heat test 耐热试验	85±3°C for 96 hours, test after keeping in normal condition for 60 minutes. 在 85±3°C 环境中放 96 小时,再放在正常环境中,60 分钟后进行测试。	Insulation resistance 100MΩ min. 100 兆欧以上,其它满足机械,电气性能.

7.3	Humidity test 耐湿试验	<p>40 ± 3 °C 90-95%RH for 96 hours, test after keeping in normal condition for 60 min.</p> <p>在 40 ± 3 °C 90—95%RH 环境中放 96 小时，再放在正常环境中，60 分钟后进行测试。</p>	<p>Insulation resistance 100M Ω min.</p> <p>100 兆欧以上，其它满足机械，电气性能。</p>
7.4	Cold test 耐冷试验	<p>At -40 ± 3 °C for 96 hours, test after keeping in normal condition for 30 min. 在 -40 ± 3 °C 环境中放 96 小时，再放在正常环境中，30 分钟后进行测试。</p>	<p>There shall be no sign of damage mechanically and electrically</p> <p>无任何迹象显示机械及电气性能损坏。</p>
7.5	Temperature cycling test 温度交变试验	<p>In FIG. For 5 cycles, test after keeping in normal condition for 60 min.</p> <p>如图示之环境中，循环 5 次后，再置于正常环境中，60 分钟后进行测试。</p> 	<p>Insulation resistance 100M Ω min.</p> <p>100 兆欧以上，其它满足机械，电气性能。</p>
7.6	Soldering test 可焊性试验	<p>The sort of dip solder terminal: The foot of the spring shall be dipped 2mm in the solder bath at a temperature of 230 ± 5 °C for 3 ± 0.5 sec.</p> <p>将簧片焊脚部浸入焊锡池 2mm 深，温度 230 ± 5 °C 时间 3 ± 0.5 秒。</p>	<p>A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.</p> <p>浸入部分 95% 以上表面被锡覆盖。</p>
7.7	Resistance to soldering heat test 耐焊性试验	<p>Reflow Soldering Conditions:</p> <p>Preheat: Temperature on the copper foil surface should reach 180 °C. 2 ± 0.3 minutes after the P.W.B entered into the soldering equipment. Soldering heat: Temperature on the copper foil surface should reach the peak temperature of 260 °C with in 5 seconds after the P.W.B enter into soldering heat zone.</p> <p>过回流焊条件:</p>  <p>预热: 电镀层表面的温度应达到 180 °C, 2 ± 0.3 分钟, 后电路板进入回流焊设备. 回流焊温度: 电镀层表面温度最高为 260 °C 且停留不超过 5 秒后电路板进入低温焊接处.</p>	<p>Without deformation of case or excessive looseness of terminals electrical characteristics shall be satisfied.</p> <p>本体无变形，能满足于机械、电气性能。</p>
8.	Others	<p>When the amendment of this specification comes into necessity, the amendment must be made by the mutual consultation and agreement between manufacturer and customer.</p> <p>当规格书需要修正时，需客户同厂方共同确认</p>	