

# 承認書

APPROVE SHEET



敬請承認如下之形式規格書：

客戶名稱

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

貴公司製品名

本公司製品名：

耳机插座

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

PRODUCT PN: \_\_\_\_\_

貴公司規格

本公司規格：

PJ-359耐温 PA9T

APPROVAL DAT: \_\_\_\_\_

PRODUCT CODE: \_\_\_\_\_

客戶料號：

本公司規格書編號：

CUSTOMER NO.: \_\_\_\_\_

PRODUCT DRAWING NO.: \_\_\_\_\_

 新品承認

NEW APPROVE

 規格變更再承認

CHANGE CODE APPROVE

AGAIN

 材料變更再承認

CHANGE MATERIAL APPROVE

AGAIN

APPROVAL

批准

DATE:

CHECK

審查

DATE:

DESIGN

設計

DATE:

貴公司承認欄

APPROVAL SIGNATURES

請於\_\_\_\_年\_\_\_\_月\_\_\_\_日前承認返回

日期 DATE: \_\_\_\_\_

PLEASE RETURN TO ADMIT XUNIANRURI

深圳市亿利百斯特电子有限公司

ShenZhen ElyBest Electronics Co., Ltd

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# Specification

RATING (额定值): DC 12V 1A

Practical  
Temperature  
Range  
使用温度范围

-40~85° C  
在-40° C~+85° C 温度内使用

Standard  
Atmospheric  
Conditions  
测试标准状态

Unless otherwise specified The standard range of atmospheric Conditions for making measurements And tests are as follows:

- (1) Between Body And Conductor: 15° C to 35 °C
  - (2) Relative Humidity 20% To 80%
  - (3) Pressure: 86kpa To 106kpa
- Reference : ( EIA-364-D-07-01 )

在没有指定的情况下测试温度、湿度、气压如下:

- (1) 温度为 15°C~35°C
- (2) 相对湿度为 20%~80%.
- (3) 气压为 86 Kpa~106Kpa

EIA Standards  
电子工业协会标准

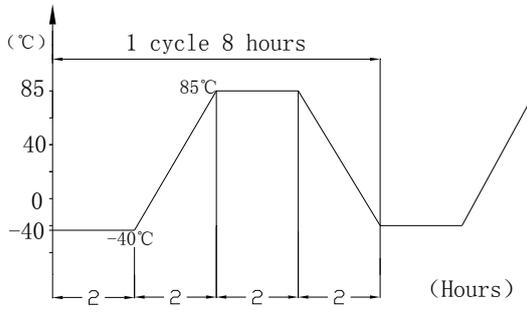
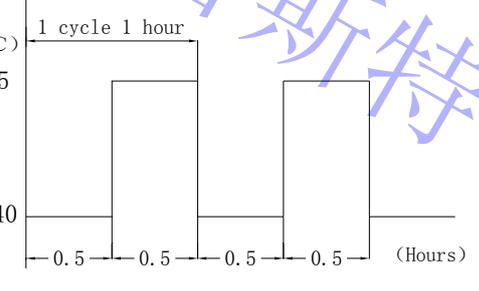
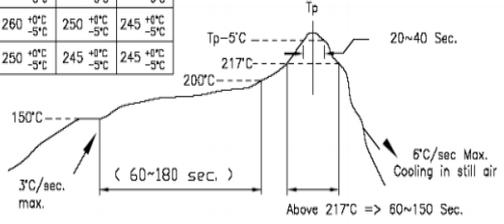
- ( 1 ) : ( EIA-364-D-07-01 ) Standard Atmospheric Conditions
- ( 2 ) : ( EIA-364-09 ) Durability Test
- ( 3 ) : ( EIA-364-13 ) Mating And Unmating Forces Test
- ( 4 ) : ( EIA-364-17 ) Temperature Life Test
- ( 5 ) : ( EIA-364-20 ) Withstanding Voltage Test
- ( 6 ) : ( EIA-364-21 ) Insulation Resistance Test
- ( 7 ) : ( EIA-364-23 ) Contact Resistance
- ( 8 ) : ( EIA-364-26 ) Salt Spray Test
- ( 9 ) : ( EIA-364-31 ) Humidity Test
- ( 10 ) : ( EIA-364-32 ) Thermal Shock (Temperature Cycling) Test
- ( 11 ) : ( EIA-364-56 ) Resistance To Reflow Soldering Heat
- ( 12 ) : ( EIA-364-59 ) Low Temperature Test
- ( 13 ) : ( EIA/JESD22-B102 ) Solderability Test
- ( 14 ) : ( EIA/JESD22-B106C ) Resistance to Wave Soldering Heat

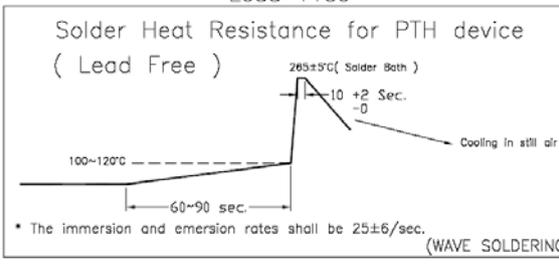
- ( 1 ) : 测试标准状态
- ( 2 ) : 寿命测试
- ( 3 ) : 插拔力测试
- ( 4 ) : 高温试验
- ( 5 ) : 耐电压测试
- ( 6 ) : 绝缘测试
- ( 7 ) : 接触阻抗测试
- ( 8 ) : 盐雾试验
- ( 9 ) : 湿度试验
- ( 10 ) : 冷热冲击 (温度循环) 试验
- ( 11 ) : 回流焊试验
- ( 12 ) : 低温试验
- ( 13 ) : 可焊性测试
- ( 14 ) : 波峰焊性测试

## Test Project

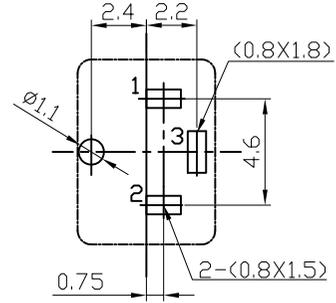
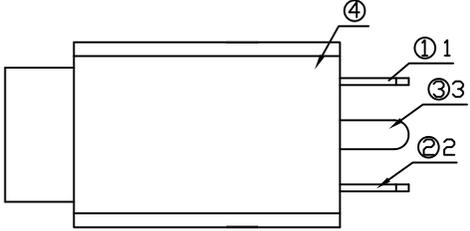
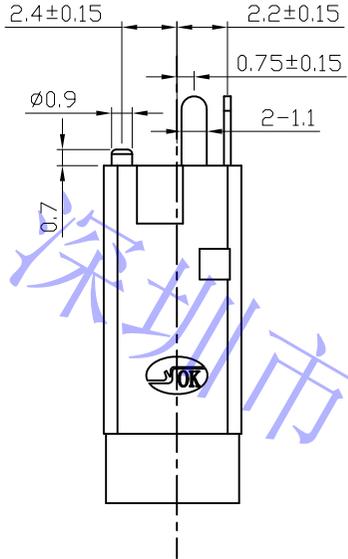
MECHANICAL (机械性能)		
ITEM 项目	TEST CONDITIONS 测试条件	PERFORMANCE 规格
1.1	<p><b>Mating and Unmating Forces Test</b> 插拔力测试</p> <p>Measures force necessary to mate connector assemblies at a rate of 12.7 mm/minute. Measurement shall be made after connecting and disconnecting using standard plug gauge 3 times. Reference : ( EIA-364-13 ) 测试的速度为 12.7mm/min, 依据标准的 Plug 做第 3 次拔插后测量</p>	3~30N
1.2	<p><b>Durability</b> 寿命试验</p> <p>Without load Connection and disconnection shall Be made with the mating plugs and samples for 5,000 cycles at a speed of 10 to 25 cycles/min Reference : ( EIA-364-09 ) 无负荷 将结合了的标准 Plug(尽量要近于中心的)在 1 分钟内以 10~25 的速度, 进行 5,000 次插入, 拔出.</p>	<p>(1) Contact resistance shall be <math>\leq 50m\Omega</math> (2) Disconnection force shall be 3 to 30N (3) Mechanical and electrical characteristics shall be satisfied (1) 接触电阻 <math>\leq 50m\Omega</math> (2) 插拔力满足 3~30N (3) 其它: 满足于机械、电气性能</p>
ELECTRICAL (电气性能)		
ITEM 项目	TEST CONDITIONS 测试条件	PERFORMANCE 规格
2.1	<p><b>Contact Resistance</b> 接触电阻</p> <p>Measured at small current (100mA or less) 1000hz Reference : ( EIA-364-23 ) 在微小电流 (100 mA) 以下测试</p>	<p>MAX: 30m<math>\Omega</math> 最大 30 毫欧</p>
2.2	<p><b>Insulation Resistance</b> 绝缘电阻</p> <p>Apply a voltage of 500v DC For 1 min to following portions after which measurement shall be made: Reference : ( EIA-364-21 ) (1) Between body and conductor (2) Between conductors not to be contact (3) Between conductors not to be when plug is inserted dc 500v 1 min 输入 500V DC 电压 1 分钟, 按以下接触方法测试: (1) 插座体与排脚之间 (2) 不接触的排脚之间 (3) 插头插入时不接触排脚之间</p>	<p>Without damage to Parts arcing or breakdown etc MIN: 100M<math>\Omega</math> 没有绝缘破坏等异常, 最小阻抗 100 M<math>\Omega</math></p>
2.3	<p><b>Withstanding Voltage</b> 耐电压</p> <p>AC 500V (50~60hz) for 1 min trip current: 0.5mA (1) Between body and conductor (2) Between conductors not to be contact (3) Between conductors not to be when plug is inserted AC 500V 1 min Reference : ( EIA-364-20 ) 输入 AC 500V (50Hz) /min 电压 1 分钟感度电流为 0.5mA, 按以下接触方法测试 (1) 插座体与排脚之间 (2) 不接触的排脚之间 (3) 插头插入时不接触排脚之间</p>	<p>1.No flashover, No spark over No breakdown 2.Current leakage: &lt;0.5mA 1.没有飞弧 没有电火花 没有被击穿, No breakdown 2.漏电流: &lt;0.5mA</p>

ENVIRONMENT (环境性能)			
ITEM 项目		TEST CONDITIONS 测试条件	PERFORMANCE 规格
3.1	Solderability Test 可焊性试验	The top of the terminals shall be Dipped 1mm in the solder bath of $235 \pm 5^{\circ}\text{C}$ for $5 \pm 0.5$ seconds. Reference : (EIA/JESD22-B102) 端子顶部被浸入锡池中 1mm 深,温度为 $235 \pm 5^{\circ}\text{C}$ ,时间为 $5 \pm 0.5$ 秒	The area of soldering should be over 95% 焊接面积应有 95% 以上
3.2	Salt Spray Test 盐雾测试	(1) Testing bath: The temperature shall $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ in the ambient of the specimen during the test. (2) Spray apparatus: The apparatus shall capable of producing fine dense mist uniformly. (3) Salt water: The concentration of the salt water shall adjusted at $5 \pm 1\%$ weight ratio at $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . (4) Testing time $24 \pm 0.5$ hours. After washed in water .The samples shall left alone for 1 or 2 hours in a room ambient. Reference : (EIA-364-26) (1) 测试容器: 在测试过程中, 产品周围环境温度 $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . (2) 喷雾设备: 盐雾要均匀喷出. (3) 盐水: 盐水要在 $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ 温度条件下, 调整在 $5 \pm 1\%$ 比例范围内. (4) 测试时间: $24 \pm 0.5$ 小时 清洗后, 样品在室内要单独放置 1 至 2 个小时.	Appearance shall not extremely rust. And contacting portions should such that they will work without hindrance for practical use. 表面不能有严重的腐蚀, 接触部分要不妨碍正常使用.
3.3	Heat Test 耐热试验	The samples shall be stored at a temperature of $85 \pm 2^{\circ}\text{C}$ for 96 hours and then it shall be subjected to the controlled recovery conditions for 1 hour after which. Reference : (EIA-364-17) 样品放置在温度 $85 \pm 2^{\circ}\text{C}$ 中测试 96 小时后, 再放置常温常湿中 1 小时来测定	There shall be no damage on appearance Mechanical and electrical. Characteristics shall be satisfied. 外观无异常, 满足于机械、电气性能
3.4	Cold Test 耐寒试验	The samples shall be stored at a temperature of $-40 \pm 3^{\circ}\text{C}$ for 96 hours and then it shall be subjected to the controlled recovery conditions for 1 hour after which. Reference : (EIA-364-59) 样品放置在温度 $-40 \pm 3^{\circ}\text{C}$ 中测试 96 小时后, 再放置常温常湿中 1 小时来测定	There shall be no damage on appearance mechanical and electrical. Characteristics shall be satisfied. 外观无异常, 满足于机械、电气性能
3.5	Humidity Test 湿度试验	The samples shall be stored at a temperature of $40 \pm 2^{\circ}\text{C}$ and 90~95%(R.H) humidity for 96 hours ,and then it shall be subjected to the controlled recovery conditions for 1 hour after which. Reference : (EIA-364-31) 样品放置在温度为 $40 \pm 2^{\circ}\text{C}$ , 相对湿度为 90~95% 中 96 小时后, 再放置常温常湿中 1 小时来测定	There shall be no damage on appearance Mechanical and electrical. Characteristics shall be satisfied. 外观无异常, 满足于机械、电气性能

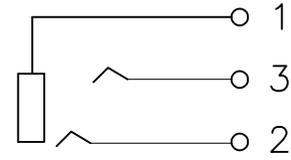
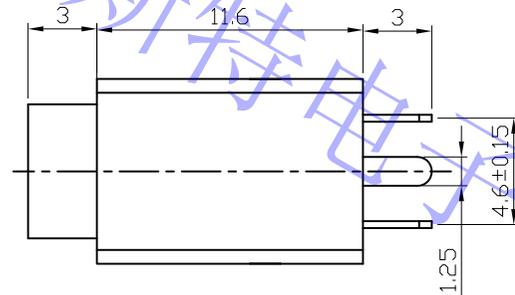
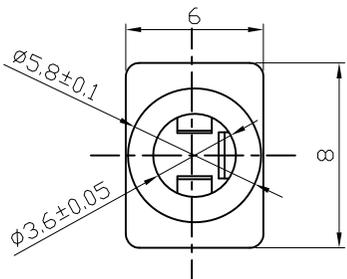
<p>3.6</p>	<p><b>Temperature Cycling Test</b> 温度循环测试</p>	<p>Put the samples under the environment that is show as diagram repeat circulating totally 10 cycles, and then it shall be subjected to the controlled recovery conditions for 1 hour after which.</p> <p>Reference : (EIA-364-32) 将样品以下列条件作 10 个循环, 再放置常温常湿中 1 小时来测定</p> 	<p>There shall be no deformation or Cracks in molded part.</p> <p>Mating and Unmating Forces: 3 to 30N Contact resistance: max. 30mΩ Insulation resistance: min. 100 mΩ Dielectric withstanding voltage: 500vac/min (between terminals)</p> <p>产品不能变形与破裂 插拔力: 3~30N 接触电阻: 最大 30mΩ 绝缘电阻: 最小 100 MΩ 绝缘耐压: 最小 500VAC (端子之间)</p>																			
<p>3.7</p>	<p><b>Cold&amp;Heat Shock Test</b> 冷热冲击测试</p>	<p>Put the samples under the environment that is show as diagram repeat circulating totally 5 cycles, and then it shall be subjected to the controlled recovery conditions for 1 hour after which.</p> <p>Reference : (EIA-364-32) 将样品以下列条件作 10 个循环, 再放置常温常湿中 1 小时来测定</p> 	<p>There shall be no deformation or Cracks in molded part.</p> <p>Mating and Unmating Forces: 3 to 30N Contact resistance: max. 30mΩ Insulation resistance: min. 100 mΩ Dielectric withstanding voltage: 500vac/min (between terminals)</p> <p>产品不能变形与破裂 插拔力: 3~30N 接触电阻: 最大 30mΩ 绝缘电阻: 最小 100 MΩ 绝缘耐压: 最小 500VAC (端子之间)</p>																			
<p>3.8</p>	<p><b>Resistance To Reflow Soldering Heat</b> 回流焊测试 (限高温材质样品)</p>	<p>Put the samples under the environment that is show as diagram repeat circulating totally 1 cycles, and then it shall be subjected to the controlled recovery conditions for 1 hour after which.</p> <p>Reference : (EIA-364-56) 将样品以下列条件作 1 个循环, 再放置常温常湿中 1 小时来测定</p> <div data-bbox="400 1653 1011 2123"> <p><b>Solder Heat Resistance (Lead-Free)</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Package Thk</th> <th colspan="3">Tp</th> </tr> <tr> <th>&lt;350</th> <th>350~2000</th> <th>&gt;2000</th> </tr> </thead> <tbody> <tr> <td>&lt;1.6mm</td> <td>260 <sup>+0°C</sup>/<sub>-5°C</sub></td> <td>260 <sup>+0°C</sup>/<sub>-5°C</sub></td> <td>260 <sup>+0°C</sup>/<sub>-5°C</sub></td> </tr> <tr> <td>1.6~2.5mm</td> <td>260 <sup>+0°C</sup>/<sub>-5°C</sub></td> <td>250 <sup>+0°C</sup>/<sub>-5°C</sub></td> <td>245 <sup>+0°C</sup>/<sub>-5°C</sub></td> </tr> <tr> <td>≥2.5mm</td> <td>250 <sup>+0°C</sup>/<sub>-5°C</sub></td> <td>245 <sup>+0°C</sup>/<sub>-5°C</sub></td> <td>245 <sup>+0°C</sup>/<sub>-5°C</sub></td> </tr> </tbody> </table>  <p>* Time 25°C to Peak Temp. ---- 8 Minutes Max. * Time within 5°C of Actual Peak Temp. -- 20~40 Seconds</p> <p>(REFLOW SOLDERING CONDITION)</p> </div>	Package Thk	Tp			<350	350~2000	>2000	<1.6mm	260 <sup>+0°C</sup> / <sub>-5°C</sub>	260 <sup>+0°C</sup> / <sub>-5°C</sub>	260 <sup>+0°C</sup> / <sub>-5°C</sub>	1.6~2.5mm	260 <sup>+0°C</sup> / <sub>-5°C</sub>	250 <sup>+0°C</sup> / <sub>-5°C</sub>	245 <sup>+0°C</sup> / <sub>-5°C</sub>	≥2.5mm	250 <sup>+0°C</sup> / <sub>-5°C</sub>	245 <sup>+0°C</sup> / <sub>-5°C</sub>	245 <sup>+0°C</sup> / <sub>-5°C</sub>	<p>Maintain the maximum temperature at least above 260 °C case of 20-40 seconds, there shall be no deformation or Cracks in molded part.</p> <p>Mating and Unmating Forces: 3 to 30N Contact resistance: max. 30mΩ Insulation resistance: min. 100 mΩ Dielectric withstanding voltage: 500vac/min (between terminals)</p> <p>保持最高温度至少 260°C 以上持续 20-40 秒的情况下产品不能变形与破裂 插拔力: 3~30N 接触电阻: 最大 30mΩ 绝缘电阻: 最小 100 MΩ 绝缘耐压: 最小 500VAC (端子之间)</p>
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<p>3.9</p>	<p>Resistance To Wave Soldering Heat 波峰焊试验 (限低温材质样品)</p>	<p>Put the samples under the environment that is show as diagram repeat circulating totally 1 cycles, and then it shall be subjected to the controlled recovery conditions for 1 hour after which. Reference : (EIA-JESD22-B106C ) 将样品以下列条件作 1 个循环,再放置常温常湿中 1 小时来测定 Reference : (EIA-JESD22-B106C )</p> <div data-bbox="391 425 997 772" style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Lead-Free-JESD22-B106C Lead-Free</p> <p style="text-align: center;">Solder Heat Resistance for PTH device ( Lead Free )</p>  <p style="text-align: center;">* The immersion and emersion rates shall be 25±6/sec. (WAVE SOLDERING)</p> </div>	<p>There shall be no damage on appearance Mechanical and electrical. Characteristics shall be satisfied. 外观无异常, 满足于机械、电气性能</p>
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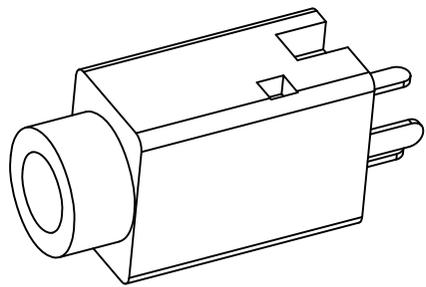
深圳市亿利百斯特电子有限公司



PCB LAYOUT TOP VIEW



CIRCUIT DIAGRAM



④	HOUSING	1	PA9T(Black)	
③	TERMINAL	1	PHOSPHOR BRONZE t=0.30	Ag-plated
②	TERMINAL	1	PHOSPHOR BRONZE t=0.30	Ag-plated
①	TERMINAL	1	PHOSPHOR BRONZE t=0.30	Ag-plated
No.	PART NAME	QTY	MATERIAL (THICK, COLOR)	REMARK

ANGULAR	±5°	DSND	LiCiling	DATE	2006.10.27	SCALE: 3 : 1	NAME: Phone Jack	
16 < L ≤ 63	±0.3	CHKD		DATE		VIEW:		
4 < L ≤ 16	±0.2	APVD		DATE		UNIT: mm		
L ≤ 4	±0.15							CAT. NO. PJ-359 PA9T耐温
UNSPECIFIED TOLERANCE							DWN. NO.	