SWEETA PRODUCTS CORPORATION ***SPECIFICATION***

TITLE	**SPC. NO.**	**PAGE：** 1 OF 6
AC POWER SOCKET	SWHJC-023	**DATE：** 2003.12.23

SPECIFICATION

1. Standard atmospheric condition：

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows：

Ambient temperature：15℃ to 35℃

Relative humidity ： 45% to 85%

Air pressure ： 86kPa to 106kPa

If there is any doubt about the results, measurements shall be made within the following limits：

Ambient Temperature：20 ±2℃

Relative Humidity ： 60% to 70%

Air Pressure ： 86kPa to 106kPa

Storage Temperature Range ： -20℃ to 65℃

Operating Temperature Range：-10℃ to 55℃

Operating temperature range is the range of ambient temperature for the component that can be operated continuously at rated voltage and rated current.

2. Electrical characteristics：

	Item	Condition	Specifications
1	Rated voltage Rated current	AC side	AC 250V 1A or AC 125V 7A
		Switching secondary circuit	DC 15V 2A or DC 30V 0.5A
2	Dielectric strength	Power socket shall withstand 2000V AC（50 to 60Hz）. Alternating current between each pin terminal for one minute.	Without damage to parts, arcing or breakdown, etc.
3	Insulation resistance	A voltage of 500V DC shall be applied for 1 minute. After which measurement shall be made.	100MΩ MIN.
4	Contact resistance	Measurement shall be made at 1000Hz with small current（AC 100mA MAX.）	30mΩ MAX.

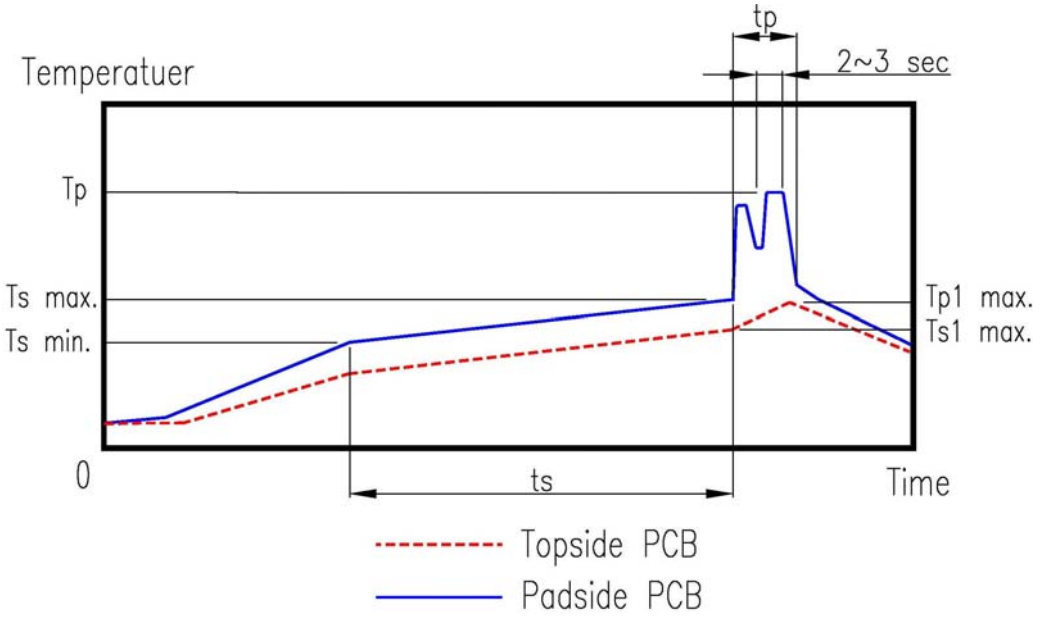
ISSUE	**DATE**	**WRTN**	**CHKD**	**APVD**	**DESCRIPTIONS**
	2003.12.22	陳樹民	龔雲輝	龔雲輝	
△1x2	2007.12.20	李勇達	夏正雄	郭遠峰	修改 Solder ability、Composite temperature humidity cyclic test
△2x3	2012.11.02	江浩霆	郭素玲	郭遠峰	Modify the item 4.3 Add the item 5、8

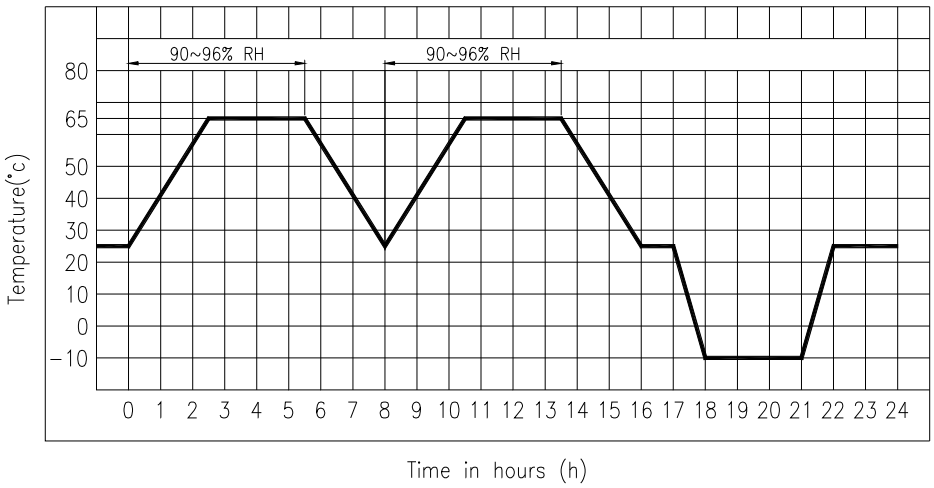
3. Mechanical characteristics

	Item	Condition	Specifications
1	Operating force	Insertion and withdrawal force shall be measured by using a gauge of standard dimensions.	4.9N～58.8N（0.5kgf～6kgf）
2	Terminal strength	A static load of 19.6N（2kgf）shall be applied to the tip of the terminals for 5 seconds in any direction.	Without cracks or excessive looseness to the terminal. Electrical and mechanical characteristics shall be satisfied. Without play in terminal, etc.

4. Endurance characteristics

	Item	Condition	Specifications
1	Solderability	Temperature of solder：△1250℃±5℃ Time of dip：3±0.5 seconds Length of dip：2±0.5mm（from top of terminal）	The soldered area shall be covered a minimum of 90% of the surface being immersed.
2	Humidity test	The socket shall be stored at a temperature of 40℃±2℃and a humidity of 90%～95% for 96 hours, and shall then be returned and allowed to remain at room condition for a period of 30 minutes, and blew off any water drops on the surface of the socket by air.	Electrical and mechanical characteristics shall be satisfied.
		Contact resistance	100mΩ MAX.
3	High temperature test	The socket shall be stored for 96 hours at a temperature of 70±2℃, and shall then be returned and allowed to remain at room condition for a period of 30 minutes, after which measurement shall be made.	Electrical and mechanical characteristics shall be satisfied. The socket shall show no evidence cracking, crazing and deformation of the insulation parts.
		Contact resistance	100mΩ MAX.
4	Low temperature test	The jack shall be stored for 96 hours at a temperature of －25℃±3℃,and shall then be returned and allowed to remain at room condition for a period of 30 minutes, after which measurement shall be made.	Electrical and mechanical characteristics shall be satisfied. The socket shall show no evidence cracking, crazing and deformation of the insulation parts.
		Contact resistance	100mΩ MAX.

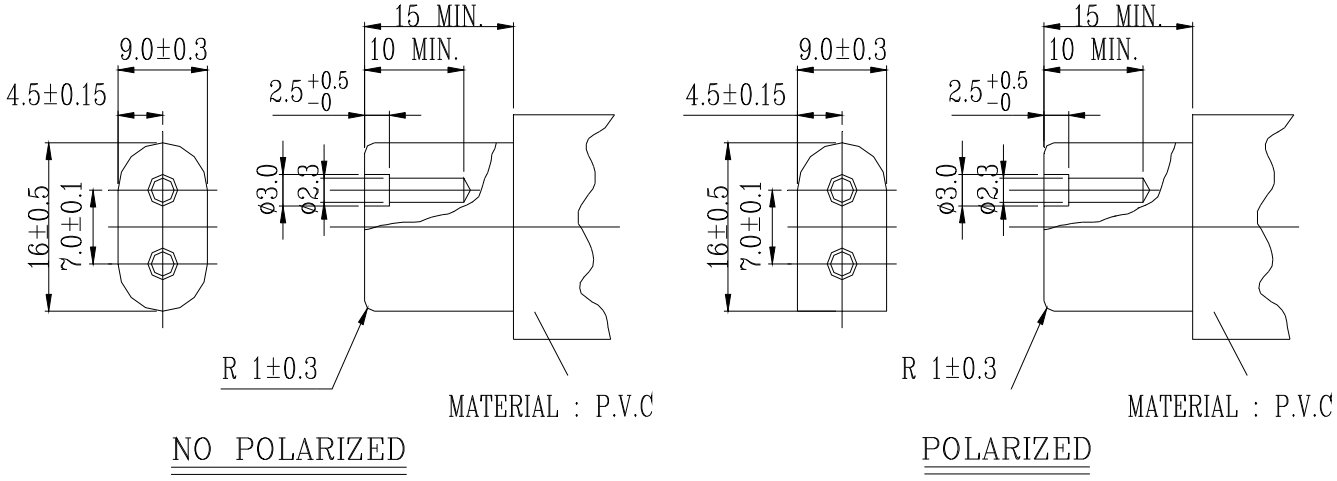
<table>
<tr><th></th><th>Item</th><th colspan="3">Condition</th><th>Specifications</th></tr>
<tr><td rowspan="8">5</td><td rowspan="8">Resistance to Soldering Heat Test ⚠1</td><td colspan="4">Wave soldering Process</td></tr>
<tr><td rowspan="2">Profile Feature</td><td colspan="2">Pb-Free Assembly</td><td rowspan="5">Electrical and mechanical characteristics shall be satisfied,
and not show remarkable failure.</td></tr>
<tr><td>Topside PCB</td><td>Padside PCB</td></tr>
<tr><td>Preheat
-Temperature min
-Temperature max
-Time (ts min to max)</td><td>120℃
(Ts1 max)</td><td>110℃(Ts min)
150℃(Ts max)
75 sec</td></tr>
<tr><td>Peak/Classification Temperature</td><td>165℃
(Tp1)</td><td>260℃ ±5℃
(Tp)</td></tr>
<tr><td>Time within 5℃ of actual Temperature (tp)</td><td></td><td>10 sec (within 2 times every time 2-3 sec)</td></tr>
<tr><td>Time 25℃ to Peak temperature</td><td></td><td>3 minutes max</td></tr>
<tr><td colspan="4">Wave Soldering Temperature Profile are as below
⚠2 About the plastic properties , Please refer to the data sheet of plastic.
 
</td></tr>
<tr><td colspan="3">Soldering Iron Test
Temperature of soldering Iron：380±10℃
Soldering time：3±1 seconds</td><td>Same as Wave soldering Process</td></tr>
<tr><td rowspan="2">AC POWER JACK</td><td>Insertion force</td><td rowspan="2">4.9N～58.8N（0.5kgf～6.0kgf）</td></tr>
<tr><td>Withdrawal force</td></tr>
</table>

	Item	Condition	Specifications
6	Composite temperature/ humidity cyclic test	The power sockets shall be subjected to the conditions as shown in below, and then shall be returned and allowed to remain in room ambient condition for 30 minutes.	Electrical and mechanical characteristics shall be satisfied.
		Contact resistance	100mΩ MAX.
		 （4 CYCLES）	
7	Operating endurance	The life test shall consist of 2000 times of insertion and withdrawal with the mate plug at a rate of 20 to 30 times per minute under no load. Testing plug with putting electric conducted grease to avoid overheating and friction.	Electrical and mechanical characteristics shall be satisfied.
		Contact resistance	100mΩ MAX.

△2 5. Soldering condition shelf life about 6 months depend on storage condition of humidity, temperature and others factors.

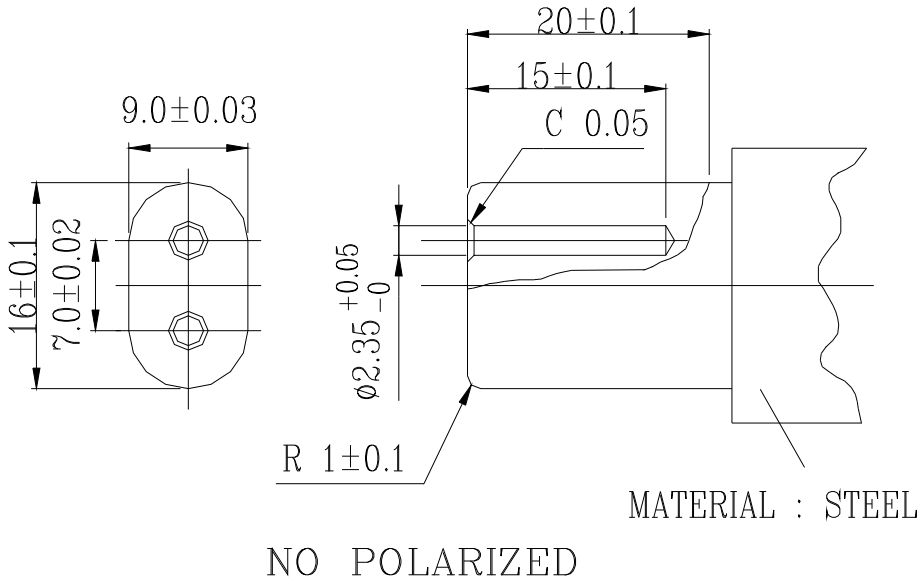
6. Mating plug：

MATE PLUG



When above cord spec is inserted into or withdrawal from AC SOCKET, internal switch of AC SOCKET should be no problem.

7. Testing plug：



△2 8. Endurance test sequence

Test group		Sample group							
NO.	Test item	A	B	C	D	E	F	G	H
2.2	Dielectric strength	1,6		1,6	1,6	1,6	1,6	1,6	1,6
2.3	Insulation resistance	2,7		2,7	2,7	2,7	2,7	2,7	2,7
2.4	Contact resistance	3,8		3	3	3	3,8	3,8	3
3.1	Operating force	4,9		4,8	4,8	4,8	4	4,9	4,8
3.2	Terminal strength	5							
4.1	Solderability Test		1						
4.2	Humidity test			5					
4.3	High Temperature Test				5				
4.4	Low Temperature Test					5			
4.5	Resistance to Soldering Heat test						5		
4.6	Composite temperature / humidity cyclic test							5	
4.7	Operating endurance								5

Test sample quality：2 pcs／group