

TITLE AC POWER SOCKET	SPC. NO. HJC-027	PAGE : 1 OF 5 DATE : 2001.06.27
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SPECIFICATION

1. \triangle Standard atmospheric condition :

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

Ambient Temperature: 15°C to 35°C

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 \pm 2°C

Relative Humidity: 60% to 70%

Air Pressure : 86kPa to 106kPa

Storage Temperature Range: -20°C to 65°C

Operating Temperature Range: -10°C to 55°C

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
2.1 Rated voltage Rated current		AC 250V 2.5A
2.2 Dielectric strength	\triangle Power socket shall withstand 4000V AC (50 to 60Hz) . Alternating current between each pin terminal for one minute.	Without damage to parts, arcing or breakdown, etc.
2.3 Insulation resistance	A voltage of 500 V DC shall be applied for 1 minute. After which measurement shall be made.	100M Ω MIN.
2.4 Contact resistance	Measurement shall be made at 1000Hz with small current and voltage. (100mA max. 2mV max.)	50m Ω MAX.

ISSUE	DATE	WRTN	CHKD	APVD	DESCRIPTIONS
	2001.06.27	STEVEN	KUNG		UP DATE
\triangle x3	2007.12.24	JACKAL	JOHNSON	DICK	修改 Solder ability 、Resistance to soldering heat 、Standard atmospheric condition. °
\triangle x3	2010.09.16	PATRICK	PAUL	HELEN	Modify item 2.2 ° Add item 7 、8 °

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3. Mechanical characteristics

Item	Condition	Specifications
3.1 Operating force	Insertion and withdrawal force shall be measured by using a gauge of standard dimensions.	4.9N~58.8N (0.5Kgf~6.0Kgf)
3.2 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

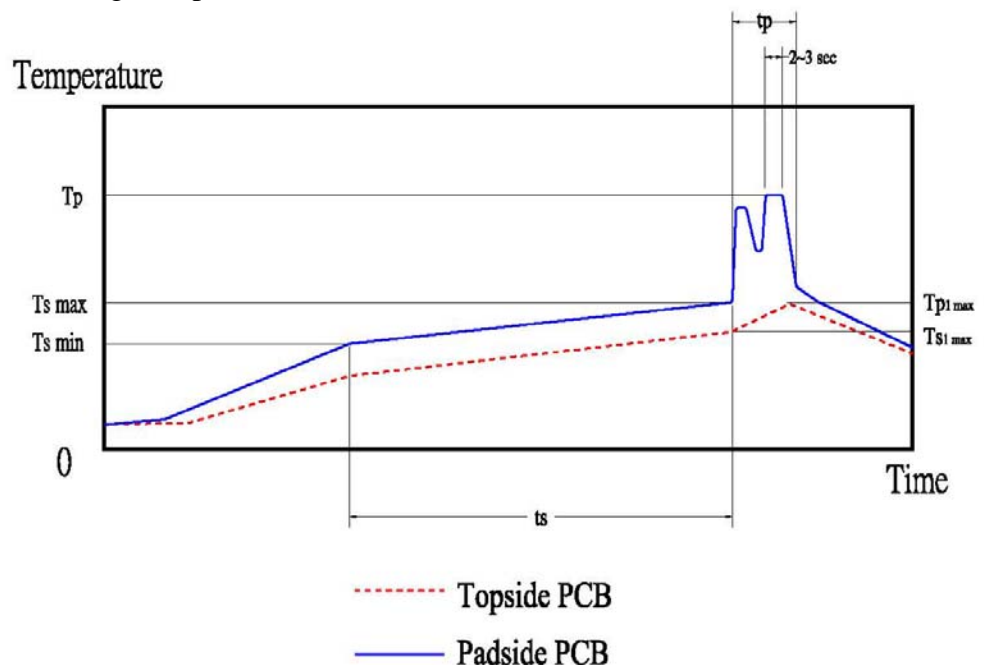
Item	Condition	Specifications
4.1 Solderability	Δ Temperature of solder : $250^{\circ}\text{C} \pm 5^{\circ}\text{C}$ Time of dip : 3 ± 0.5 seconds Length of dip : 2 ± 0.5 mm (from top of terminal)	The soldered area shall be covered a minimum of 90% of the surface being immersed.

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Item	Condition		Specifications
Wave soldering Process Profile Feature Preheat -Temperature min -Temperature max -Time (t _s min to max) Peak/Classification Temperature Time within 5°C of actual Temperature (t _p) Time 25°C to Peak temperature	Wave soldering Process		Electrical and mechanical characteristics shall be satisfied, and not show remarkable failure.
	Pb-Free Assembly		
	Topside PCB	Padside PCB	
	120°C (T _{sl} max)	110°C (T _s min) 150°C (T _s max) 75 sec	
	165°C (T _{pl} max)	260°C ±5°C (T _p)	
		10 sec (within 2 times every time 2-3 sec)	
		3 minutes max	

Wave Soldering Temperature Profile are as below

△
4.2 Resistance to Soldering Heat Test



Soldering Iron Test	
Temperature of soldering Iron : 380±10°C	Same as Wave soldering Process
Soldering time : 3±1 seconds	
Insertion force	4.9N ~ 58.8N (0.5kgf ~ 6.0kgf)
Withdrawal force	4.9N ~ 58.8N (0.5kgf ~ 6.0kgf)

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Item	Condition	Specifications
4.3 Humidity test	The socket shall be stored at a temperature of 40°C ±2°C and a humidity of 90% ~95% for 240 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.	The following items shall be satisfied. However damage which do not affect performance will be considered acceptable. No.2.2, 2.3, 3.1, 3.2 Contact resistance : 100mΩ MAX.
4.4 Dry heat	The socket shall be stored for 240 hours at a temperature of 70±2°C, and shall then be returned and allowed to remain at room condition for a period of 30 minutes, after which measurement shall be made.	
4.5 Cold test	The jack shall be stored for 240 hours at a temperature of -25°C ±3°C, and shall then be returned and allowed to remain at room condition for a period of 30 minutes, after which measurement shall be made.	
4.6 Operating endurance	The life test shall consist of 5000 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.	

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△8. Endurance test sequence

Test sequence		Test group					
		A	B	C	D	E	F
2.2	Dielectric strength		1,6	1,6	1,6	1,6	1,6
2.3	Insulation resistance		2,7	2,7	2,7	2,7	2,7
2.4	Contact resistance		3,8	3	3	3	3
3.1	Operating force		4	4,8	4,8	4,8	4,8
3.2	Terminal strength			9	9	9	9
4.1	Solderability	5					
4.2	Resistance to Soldering Heat Test		5				
4.3	Humidity test			5			
4.4	Dry heat				5		
4.5	Cold test					5	
4.6	Operating endurance						5

Test sample quality : 2 pcs min. / group