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SPECIFICATION

1. Standard atmospheric condition

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

Ambient temperature: 5°C to 35°C

Relative humidity : 25% 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°C

Relative humidity : 60% to 70%

Air pressure : 86kPa to 106kPa

Operating temperature range: -10°C to 65°C

Relative humidity : 85% MAX

Preserve temperature range: -25°C to 70°C

Relative humidity : 85% MAX

Operating temperature range is the range of ambient temperatures 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	PIN JACK		DC 12V 1A
	S-JACK	Socket	AC 100V 1A DC 12V 2A MAX.

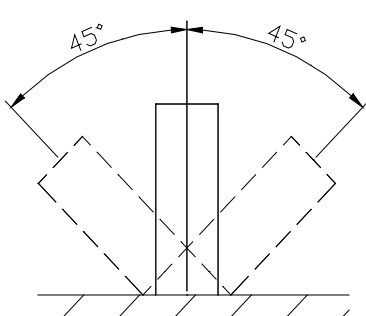
ISSUE	DATE	WRN	CHKD	APVD	DESCRIPTIONS
	2004.10.06	YUNTAI	JOHNSON	ERIC	
Δx 2	2008.03.25	Helen	Johnson	Dick	Modify the item 4.1/ 4.5

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Item	Condition	Specifications						
2.2 Dielectric strength	<p>Between conductors which should not make contact under normal conditions. ** V AC r.m.s (50 to 60Hz) for 1 min. (trip current 2mA)</p> <table border="1"> <thead> <tr> <th>PART NAME</th> <th>**</th> </tr> </thead> <tbody> <tr> <td>PIN JACK</td> <td>500</td> </tr> <tr> <td>S-JACK</td> <td>250</td> </tr> </tbody> </table>	PART NAME	**	PIN JACK	500	S-JACK	250	Without damage to parts , arcing or breakdown, etc.
PART NAME	**							
PIN JACK	500							
S-JACK	250							
2.3 Insulation resistance	<p>A voltage of ** V DC shall be applied for a minute. Between conductors which should not make contact under normal conditions after which measurement shall be made.</p> <table border="1"> <thead> <tr> <th>PART NAME</th> <th>**</th> </tr> </thead> <tbody> <tr> <td>PIN JACK</td> <td>500</td> </tr> <tr> <td>S-JACK</td> <td>500</td> </tr> </tbody> </table>	PART NAME	**	PIN JACK	500	S-JACK	500	100MΩ MIN.
PART NAME	**							
PIN JACK	500							
S-JACK	500							
2.4 Contact resistance	Measurement shall be made at 1000Hz with small current : (100mA MAX.)	After actuates it several times. Except conduct wire resistance.						
	PIN JACK	Pin-contact	30mΩ MAX.					
		Plug cover – cap						
		Pin – switch	50mΩ MAX.					
	S-JACK	Pin-contact	30mΩ MAX.					
		Plug – socket cover	50mΩ MAX.					
Socket cover – socket cover								

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3. Mechanical characteristics

Item	Conditions	Specifications	
3.1 Operating force	Retaining force of plug pin inserting and withdrawing 3 times by using a gauge of standard dimensions after which operation force shall be measured by the standard gauge.		
	PIN JACK	Insertion force	29.4N (3.0kgf) MAX.
		Withdrawal force	0.98N~29.4N (0.1~3kgf)
	S-JACK (S-terminal)	Insertion force	44.1N (4.5kgf) MAX.
Withdrawal force		4.9N~34.3N (0.5~3.5kgf)	
3.2 Single tenacity	S-JACK Measuring pin gage : Mating plug.	0.098N (10gf) MIN.	
3.3 Terminal strength	PIN JACK A static load of 4.9N(0.5kgf)shall be applied to the terminal in any direction for 10 seconds.	Without excessive looseness to the terminal electrical and mechanical characteristics shall be satisfied.	
	S-JACK The set shall be subjected to 3 bent through an angle of 45° in the right and left directions of terminal thickness. 		
3.4 Contact withdrawal strength	PIN JACK : A load of 29.4N(3kgf) shall be applied for ten seconds in withdrawal direction.	Without withdrawal	

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Item	Conditions			Specifications
3.5 Torsion strength	A static load of 0.098N · m (1kgf · cm) shall be applied to the terminals for 1 minute in any direction.			
	PIN JACK	Contact resistance	Pin-contact	200 Ω MAX.
			Plug cover — cap	
			Pin — switch	
	S-JACK	Contact resistance	Pin-contact	200 Ω MAX.
			Plug — socket cover	10 Ω MAX.
Socket cover — socket cover				

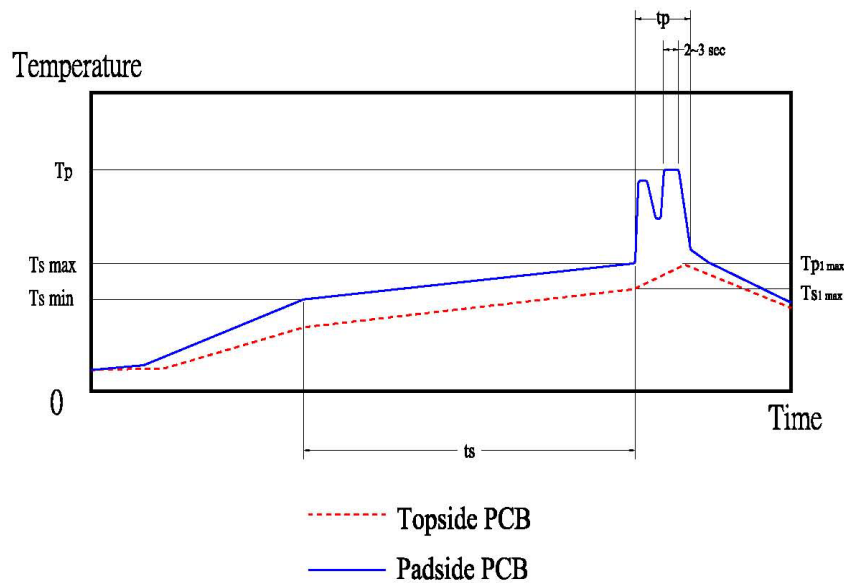
4. Endurance characteristics

Item	Conditions	Specifications
4.1 Solderability	Solder temperature : 245°C±5°C $\Delta 250^{\circ}\text{C}\pm 5^{\circ}\text{C}$ Time of dip : 3±0.5seconds 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.
4.2 Dry heat	The jack shall be stored at a temperature of 70±2°C for 48 hours. Then the jack shall be maintained at standard atmospheric conditions for 30 min after which measurement shall be made.	Dimensional requirements shall be satisfied. Electrical and mechanical characteristics shall be satisfied.
4.3 Cold	The jack shall be stored at a temperature of -25±3°C for 48 hours. Then the jack shall be maintained at standard atmospheric conditions for 30 min after which measurement shall be made.	
4.4 Humidity	The jack shall be stored at a temperature of 40±2°C and a humidity of 90% to 95% for 48±3 hours. Then the jack shall be maintained at standard atmospheric conditions for 30 min after which measurement shall be made.	

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

Wave Soldering Temperature Profile are as below



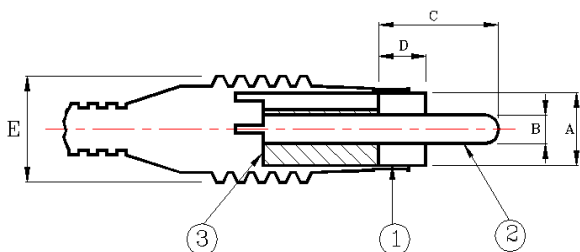
Soldering Iron Test		Same as Wave soldering Process
Temperature of soldering Iron : 380±10°C Soldering time : 3±1 seconds		
PIN JACK	Insertion force	29.4N (3.0kgf) MAX.
	Withdrawal force	0.98N~29.4N (0.1~3kgf)
MINI DIN SOCKET (S-terminal)	Insertion force	44.1N (4.5kgf) MAX.
	Withdrawal force	4.9N~34.3N (0.5~3.5kgf)

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Item	Conditions		Specifications	
4.6 Operating endurance	Inserting and withdrawing shall be made * * times at a speed of 10 to 20 times/min. Using mating plug.		Electrical and mechanical characteristics shall be satisfied.	
	PART NAME	* *		
	PIN JACK	100		
		S-JACK	1000	
	PIN JACK	Contact resistance		50mΩ MAX.
		Insulation resistance		100MΩ MAX.
S-JACK	Contact resistance	Pin-contact	60mΩ MAX.	
		Plug-socket cover	100mΩ MAX.	
		Socket cover-socket cover		
4.7 Resistance to silver sulfuration	The terminals of miniature jack shall be dipped into a dilute solution of 3% potassium sulfide for 1 minute.		PIN JACK : Contact resistance shall be twice of less of the previously specified value.	
	S-JACK	Contact resistance	Pin-contact	1Ω MAX
			Plug-socket cover	10Ω MAX
4.8 Composite temperature / humidity cyclic test	The jack board shall be subjected to 4 cycles. Then jack board shall be stored at standard atmospheric conditions for 30 minutes, after which measurement shall be made.		Dimensional requirements shall be satisfied. Electrical and mechanical characteristics shall be satisfied	
	<p style="text-align: center;">(4 cycles)</p>			

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5. Pin jack plug (Mating plug)

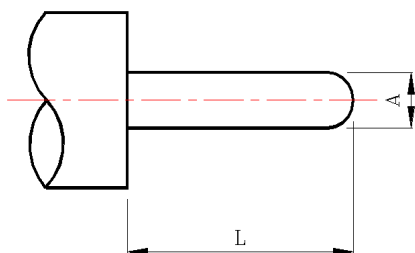


Note : Eccentricity to central axis shall be 0.15 mm or less.

() Reference value

Symbol	Dimension
A	(ϕ 8.2)
B	$3.25^{+0}_{-0.15}$
C	14.0 ± 0.5
D	5.5 ± 0.5
E	12.0 MAX.
1. plug cover 2. plug pin 3. Insulator	

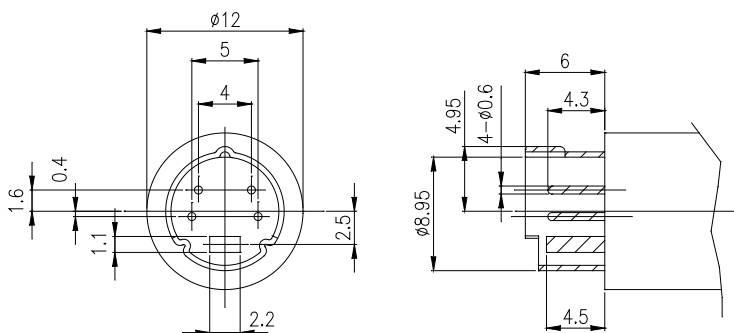
6. Standard dimension gauge



Roughness of the surface:
 $\nabla\nabla\nabla\nabla$ 0.8S
 Material:
 Stainless steel

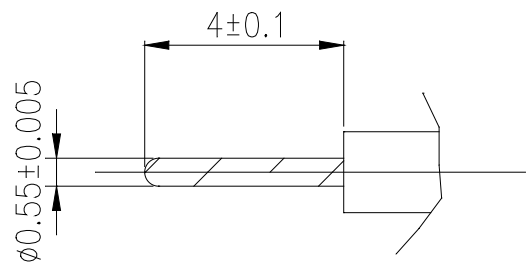
Standard	
Symbol	Dimension
L	14.0 ± 0.2
A	ϕ 3.2 ± 0.005
Minimum	
Symbol	Dimension
L	14.0 ± 0.2
A	ϕ 3.1 ± 0.005

7. S jack plug (Mating plug) :



Note: SPEC TOLERANCE ± 0.1

8. Standard dimension gauge :



Roughness of the surface:
 $\nabla\nabla\nabla\nabla$ 0.8S
 Material:
 Stainless steel