

<b>TITLE</b> S JACK	<b>SPC. NO.</b>	<b>PAGE : 1 OF 6</b> <b>DATE : 2004.02.20</b>
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## 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°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 ±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

ISSUE	DATE	WRN	CHKD	APVD	DESCRIPTIONS
	2004.02.20	陳樹民	龔雲輝	龔雲輝	
△x 1	2006.09.05	姜鳳梅	夏正雄	郭遠峰	Adding wave soldering condition
△x 1	2008.03.12	黃健璋	夏正雄	郭遠峰	Modify the item 4.4
△x 2	2008.12.12	黃健璋	夏正雄	夏正雄	Add Item 5 and 7
△x 1	2012.12.20	劉秀慧	郭素玲	郭遠峰	Modify the item 4.5

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## 2. Electrical characteristics

	Item	Condition	Specifications
1	Rated voltage/ Rated current		AC 100V 1A or DC 12V 2A MAX.
2	Dielectric strength	Between conductors which should not make contact under normal conditions. 250V AC r.m.s ( 50 to 60Hz ) for 1 minute. ( trip current : 2mA )	Without breakdown
3	Insulation resistance	A voltage of 250V DC shall be applied for a minute. Between conductors which should not make contact under normal conditions after which measurement shall be made.	50M $\Omega$ MIN.
4	Contact resistance	Measurement shall be made at 1000Hz with small current : 50mA	
		Pin— Contact	30m $\Omega$ MAX.
		Plug cover— Socket	50m $\Omega$ MAX.

## 3. Mechanical characteristics

	Item	Condition	Specifications
1	Operating force	Insertion force	44.1N ( 4.5kgf ) MAX
		Withdrawal force	8.82N~29.4N ( 0.9~3kgf )
2	Contact pull strength	Contact shall withstand a steady strength pull of 2kg in the direction of contact breakout for 20 seconds.	Without parting
3	Single tenacity	The terminal shall be capable of withstand a force of 29.4N ( 3kgf ) applied in any direction for 10 seconds.	0.098N ( 10g ) MIN.

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## 4. Endurance characteristics

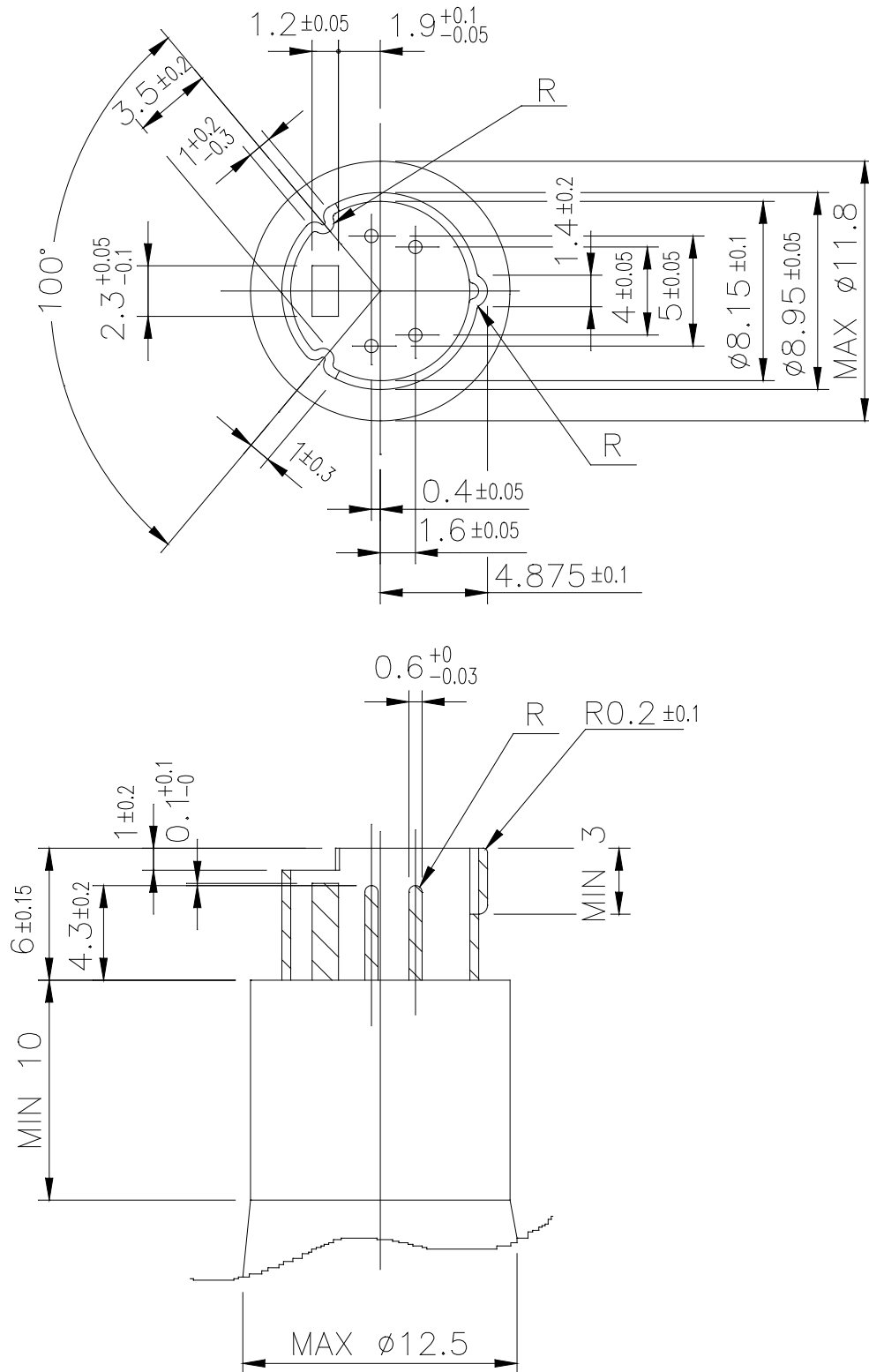
	Item	Condition	Specifications
1	Operating endurance	The socket shall be subject to 1,000 cycles, at the rate of 10~20 cycles per minute.	Dimensional requirements, electrical and mechanical characteristics shall be satisfied.
		Pin – Contact	80mΩ MAX.
		Plug cover – Socket	100mΩ MAX.
2	Humidity test	The S-Jack and Pin Jack shall be subject to 90% ~95% RH, 40°C±3°C for 96 hours, and shall be conditioned at room ambient conditions for a period of 1~2 hours.	Dimensional requirements, electrical and mechanical characteristics shall be satisfied.
		Pin – Contact	80mΩ MAX.
		Plug cover – Socket	100mΩ MAX.
		Insulation resistance	1MΩ MIN.
3	Dry heat	The jack shall be stored at a temperature of 70±3°C for 96 hours, Then the jack shall be maintained at standard atmospheric conditions for 1~2 hours. after which measurement shall be made.	Dimensional requirements, electrical and mechanical characteristics shall be satisfied.
		Pin – Contact	200mΩ MAX.
		Plug cover – Socket	500mΩ MAX.
		Insulation resistance	10MΩ MIN.
4	Soldering test	Temperature of solder : $\triangle$ 250°C±5°C 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.

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Item	Condition	Specifications		
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 (ts min to max)		120°C (Ts1 max)	110°C (Ts min) 150°C (Ts max) 75 sec
	Peak/Classification Temperature		165°C (Tp1)	260°C ±5°C (Tp)
	Time within 5°C of actual Temperature (tp)			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			
	△ About the plastic properties , Please refer to the data sheet of plastic.			
	<p>Temperature</p> <p>Time</p> <p>----- Topside PCB</p> <p>———— Padside PCB</p>			
Soldering Iron Test Temperature of soldering Iron : 380±10°C Soldering time : 3±1 seconds		Same as Wave soldering Process		
Insertion force		44.1N (4.5kgf) MAX.		
Withdrawal force		8.82N~29.4N (0.9~3kgf)		

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5.  $\triangle$ Soldering condition shelf life about 6 months depend on storage condition of humidity, temperature and others factors.
6. Standard plug



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7.  $\triangle$ Endurance test sequence :

Test Item		Test group						
		A	B	C	D	E	F	G
2.2	Dielectric strength	1,6			1,6	1,6		1,6
2.3	Insulation resistance	2,7			2	2		2,7
2.4	Contact resistance	3			3	3		3,8
3.1	Operating force	4,8			4,7	4,7		4
3.2	Contact pull strength		1					
3.3	Single tenacity			1				
4.1	Operating endurance	5						
4.2	Humidity test				5			
4.3	Dry heat					5		
4.4	Soldering test						1	
4.5	Resistance to Soldering Heat Test							5

Test sample quality : 2 pcs min. / group