

<b>TITLE</b> PHONE JACK	<b>SPC. NO.</b>	<b>PAGE : 1 OF 7</b> <b>DATE : 2002.03.06</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: 5°C to 35°C

Relative humidity : 40% 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±1°C

Relative humidity : 60% to 70%

Air pressure : 86kPa to 106kPa

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

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

Humidity range : 85% RH max.

## 2. Electrical characteristics:

	Item	Condition	Specifications
1	Rated voltage/ Rated current		D.C.12V 1A
2	Contact resistance	Normally open and normally closed contact shall be test. Measurement shall be made at with small current 1000 Hz ( 1A max. )	30mΩ max.
3	Insulation resistance	A voltage of 500V DC shall be applied for 1 minute. after which measurement shall be made.	100MΩ min.
4	Dielectric strength	500V AC ( 50 Hz to 60 Hz ) for 1 minute. Trip current : 2mA	Without damage to parts, arcing or breakdown, etc.

ISSUE	DATE	WRTN	CHKD	APVD	DESCRIPTIONS
△x1	2008.10.08	夏正雄	夏正雄	郭遠峰	Add Endurance test sequence
△x1	2009.08.03	江浩霆	郭遠峰	郭遠峰	Add statement of shelf life
△x1	2012.05.30	劉秀慧	郭素玲	郭遠峰	Modify the item 4.5

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3. Mechanical characteristics			
	Item	Condition	Specifications
1	Operating force	It shall be measured by using a gauge of mating plug.	
		Insertion force	4.9~34.3N (0.5~3.5kgf)
		Withdrawal force	4.9~29.4N (0.5~3kgf)
4. Endurance characteristics			
	Item	Condition	Specifications
1	Low Temperature Test	The jack shall be stored for 96 hours at a temperature of $-40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ .	Dimensional requirements and electrical characteristics shall be satisfied.
		The jack shall be left alone for 30 minutes in a room ambient, after measurement shall be made.	
		The dewdrops on the jack shall be blown off to stabilize measurement.	
		Insertion force	2.94~34.3N (0.3~3.5kgf)
		Withdrawal force	2.94~29.4N (0.3~3kgf)
2	High Temperature Test	The jack shall be stored for 96 hours at a temperature of $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ and relative humidity of below 50% .	Dimensional requirements and electrical characteristics shall be satisfied.
		The jack shall be left alone for 30 minutes in a room ambient, after measurement shall be made.	
		Insertion force	2.94~34.3N (0.3~3.5kgf)
		Withdrawal force	2.94~29.4N (0.3~3kgf)
3	Solderability	Temperature of solder : $250\pm 5^{\circ}\text{C}$ Time of dip : $3\pm 0.5$ seconds Length of dip : $2\pm 0.5\text{mm}$ ( from top of terminal )	The soldered area shall be covered a minimum of 90% of the surface being immersed.
4	Operating Endurance Test	Jack shall withstand 5000 cycles of insertion and withdrawal with testing plug as shown in Fig.1 at a rate of 20~30 cycles per minute.	Dimensional requirements and electrical characteristics shall be satisfied.
		Insertion force	2.94~34.3N (0.3~3.5kgf)
		Withdrawal force	2.94~29.4N (0.3~3kgf)
		Contact resistance	60m $\Omega$ MAX.

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	<b>Item</b>	<b>Condition</b>			<b>Specifications</b>		
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 style="text-align: center;"> <span style="color: red;">-----</span> Topside PCB  <span style="color: blue;">—————</span> 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				2.94~34.3N (0.3~3.5kgf)			
Withdrawal force				2.94~29.4N (0.3~3kgf)			

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5. RoHS compliant Parts :

5.1 All material which are RoHS compliant by containing banned substances.

5.2 Prohibition to use ozone depleting substances

Prohibited substances: CFCs/Halon/Carbon tetrachloride/1,1,1-Trichloroethan

(1) This product Assembly, or Component does not contain any of the above mentioned substances

(2) This product Assembly, or Component in the production process is not used any of the above mentioned substances.

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

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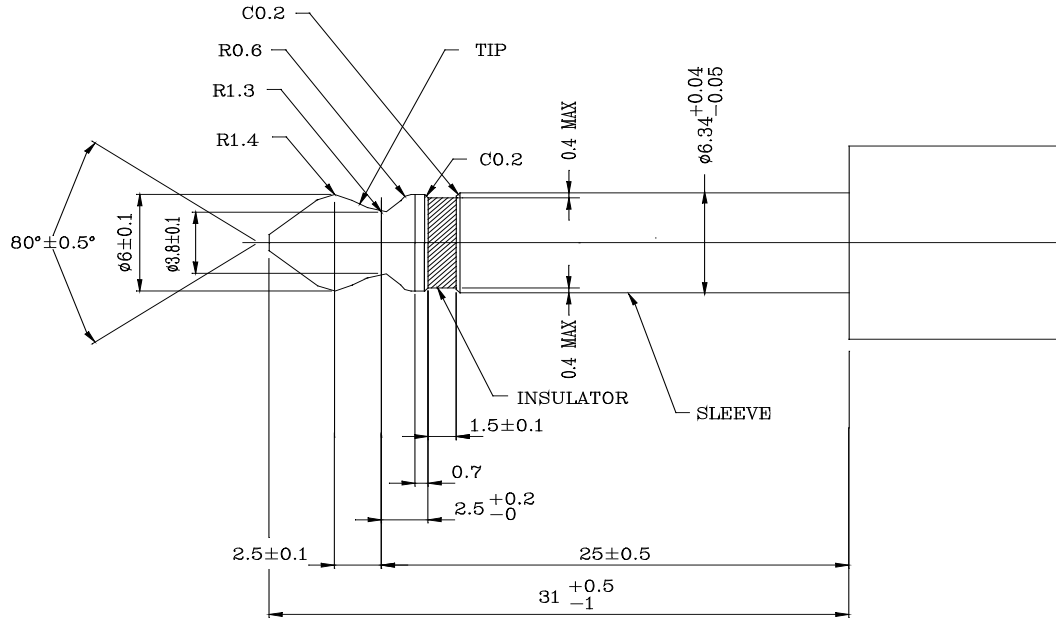
7. Endurance test sequence :

Test sequence		Test group						
		A	B	C	D	E		
Test Item								
2.2	Contact resistance	1,6	1,6		1	1,6		
2.3	Insulation resistance	2,7	2,7		2,6	2,7		
2.4	Dielectric strength	3,8	3,8		3,7	3,8		
3.1	Operating force	4	4		4	4		
4.1	Low Temperature Test	5						
4.2	High Temperature Test		5					
4.3	Solderability			1				
4.4	Operating Endurance Test				5			
4.5	Resistance to Soldering Heat Test					5		

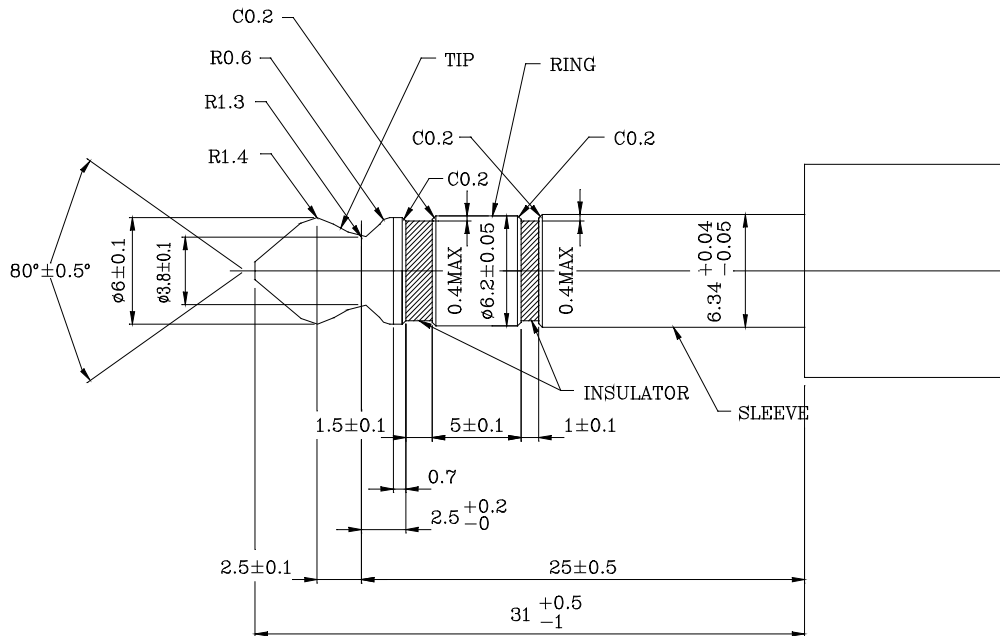
Test sample quality : 2 pcs min. / group

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8. Mating plug :

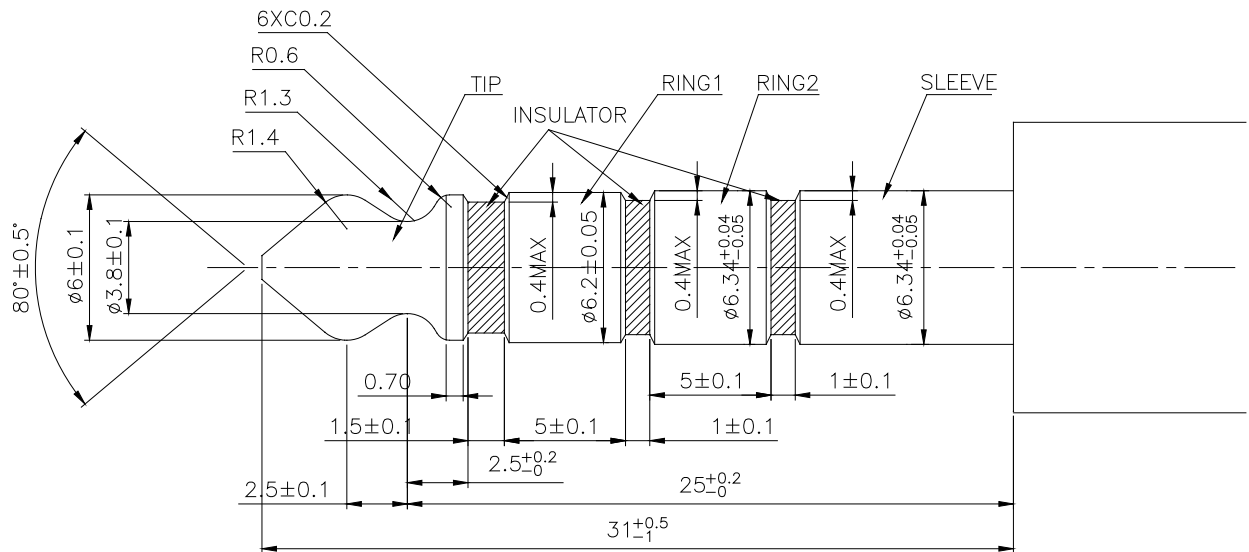


2 Conductors Type



3 Conductors Type

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4 Conductors Type