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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 : 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±1°C

Relative humidity : 63% to 67%

Air pressure : 86kPa to 106kPa

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

2. CONSTRUCTION

2A. Design and construction :

The jack shall be of the design, construction, and dimensions as shown in the applicable drawing.

2B. Components and materials :

Components and materials shall be as specified in the applicable drawing.

ISSUE	DATE	WRTN	CHKD	APVD	DESCRIPTIONS
	2000.09.01	蘇建源	夏正雄	龔雲輝	
	2001.07.06	陳樹民	夏正雄	龔雲輝	Update
△X 2	2008.01.30	李阮龍	夏正雄	郭遠峰	Modify the item 5.4 and 5.6
△X 2	2013.08.29	李阮龍	郭素玲	郭遠峰	Modify the item 5.6 , 6 and add the item 7.

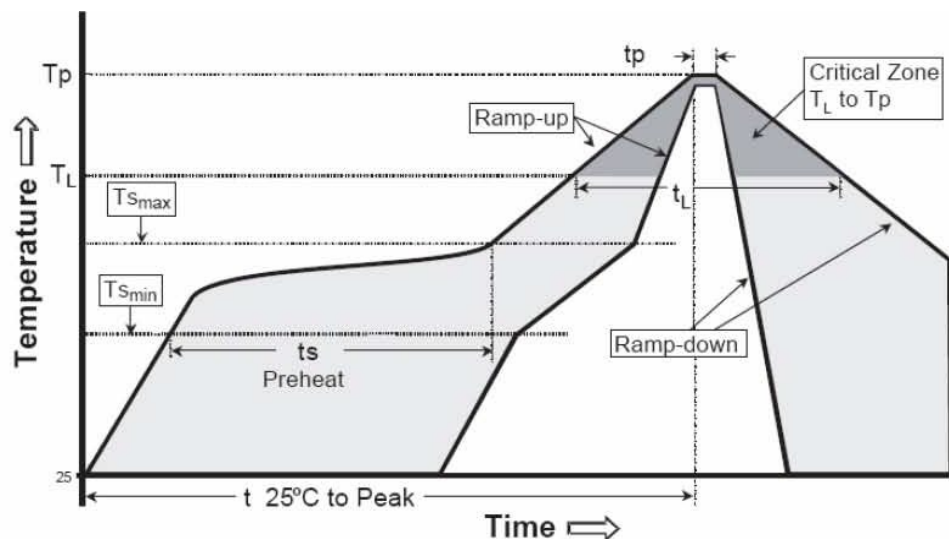
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3. Electrical characteristics:		
Item	Condition	Specifications
3.1 Contact Resistance	Between a terminal of the jack and that of the mate plug, measurement shall be made at 1000Hz with small current (100mA max.)	50m Ω MAX.
3.2 Insulation resistance	A voltage of 500 V DC shall be applied for 1 minute. After which measurement shall be made.	100M Ω MIN..
3.3 Dielectric strength	A voltage of 500V AC (50 to 60Hz) shall be applied for 1 min.. Trip current : 2Ma	Without damage to parts, arcing or breakdown, etc.
4. Mechanical characteristics		
Item	Condition	Specifications
4.1 Operating force	Insertion and withdrawal force shall be measured by using a gauge of standard dimensions as shown in page 6 of 6 APPENDIX FIGURE 2 GAUGE PLUG.	2.94N~29.4N (0.3Kgf~3Kgf)
	4.1.1 Insertion force 4.1.2 Withdrawal force	
4.2 Terminal strength	A static load of 4.9N(0.5Kgf) shall be applied to the tip of the terminals for 10 seconds. in any direction.	Without cracks or excessive looseness to the terminal.
4.3 Contact limit	The jack spring shall be in contact with the mate plug in the range as shown in page 6 of 6 APPENDIX FIGURE 3 CONTACT LIMIT.	
4.4 Switching mode	The switching mode of the jack shall not be specified in process of inserting or withdrawing the mate plug.	
4.5 Insulation spacing	The insulation spacing between metal parts shall be 0.3 mm or more with or without insertion of the gauge plug.	

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5. Endurance characteristics		
Item	Condition	Specifications
5.1 Humidity test	The jack shall be stored at a temperature of $40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ and a humidity of 90%~95% for 96 hours. Then the jack shall be maintained at standard atmospheric conditions for 30 minutes after which measurement shall be made.	Electrical and mechanical characteristics shall be satisfied, and the jack shall not show remarkable failure. Insulation resistance : 50M Ω MIN.
5.2 Dry heat	The jack shall be stored at a temperature of $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ for 96 hours .then shall be allowed to remain in room ambient conditions for 30 minutes	Electrical and mechanical characteristics shall be satisfied, and the jack shall not show remarkable failure.
5.3 Cold test	The jack shall be stored at a temperature of $-40^{\circ}\text{C}\pm 2^{\circ}\text{C}$ for 96 hours .then shall be allowed to remain in room ambient conditions for 30 minutes	
5.4 \triangle Soldering test	The following test of conditions shall be applied after flux. Temperature : $250\pm 5^{\circ}\text{C}$ Time : 3 ± 0.5 sec Length of dip : 2 ± 0.5 mm (from top of terminal)	A new uniform of solder shall cover a minimum of 90% of the surface being immersed.
5.5 Operating endurance	The life test shall consist of 5000 cycles of insertion and withdrawal with the mate plug or gauge plug covered with a thin coat of grease in order to prevent from heating or wearing, at a rate of 20 to 30 cycles per minute under no load.	Electrical and mechanical characteristics shall be satisfied, and the jack shall not show remarkable failure. Contact resistance : 100m Ω MAX. Insertion and withdrawal force : 1.47N~19.6N (0.15Kgf~2Kgf)

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Item	Condition	Specifications	
5.6 ▲ Resistance to soldering heat	Reflow Temperature Profile		
	Profile Feature	Pb-Free Assembly	Electrical and mechanical characteristics shall be satisfied, and not show remarkable failure.
	Average Ramp-up Rate (T _{Smax} to T _p)	3 °C/second max	
	Preheat -Temperature Min(T _{Smin}) -Temperature Max(T _{Smax}) -Time (T _s min to max)	150 °C 200 °C 60-180 seconds	
	Time maintained above -Temperature (T _L) -Time (T _L)	217 °C 60-150 seconds	
	Peak/Classification Temperature(T _p)	250 °C	
	Time within 5°C of actual Temperature (t _p)	20-40 seconds	
	Ramp-Down Rate	6 °C/second max	
	Time 25°C to Peak Temperature	8 minutes max	

Reflow Temp Profile Temperature Profile are as below
 ▲About the plastic properties , Please refer to the data sheet of plastic.

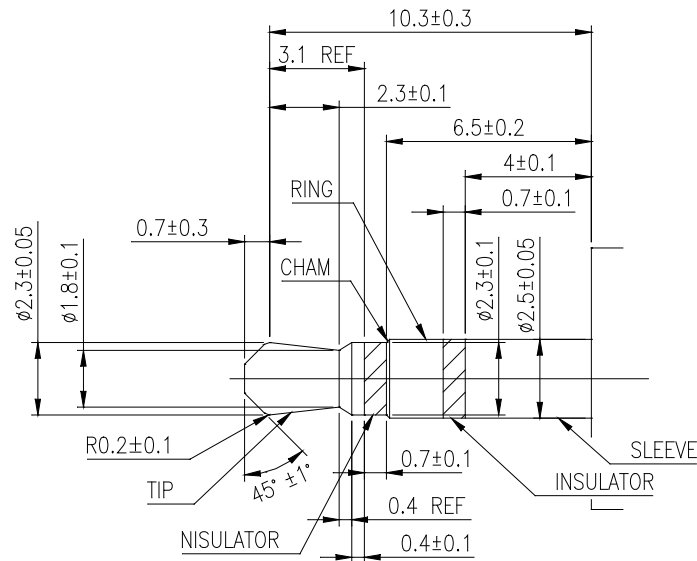


Soldering Iron Test Temperature of soldering Iron : 380±10 °C Soldering time : 3±1 seconds	Same as Wave soldering Process
Insertion force	2.94N ~ 29.4N (0.3Kgf ~ 3Kgf)
Withdrawal force	2.94N ~ 29.4N (0.3Kgf ~ 3Kgf)

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

APPENDIX FIGURE 1
MATE PLUG

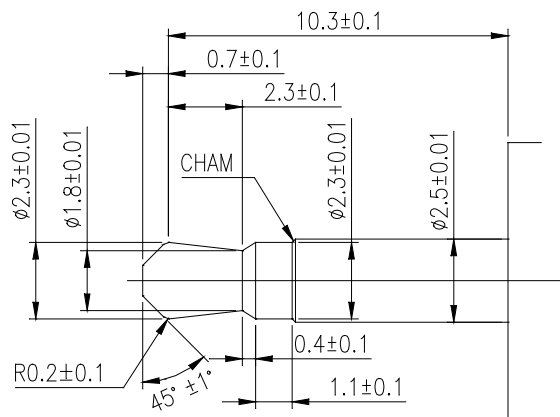


Notes :

1. The tip, ring and the sleeve shall be made of brass, and nickel plated or equivalent.
2. The origin of the mate plug shall be referred to C 6560 Miniature Concentric plugs in Japanese Industrial Standard.
3. Dimensions are in millimeters.

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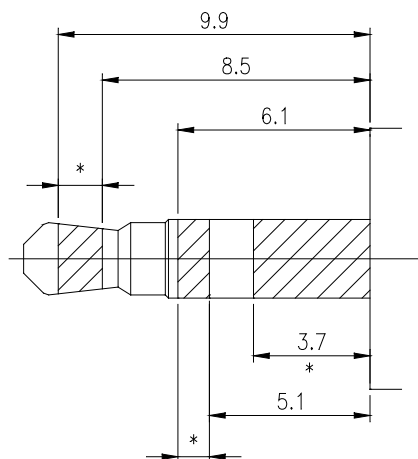
APPENDIX FIGURE 2
MATE PLUG



Notes :

- 1.The gauge plug shall be made of steel and quenched.
- 2.The finish of the gauge plug shall be peak to valley height of 0.8 micron or less all over.
- 3.Unless otherwise specified, dimensions are in millimeters.

APPENDIX FIGURE 3
MATE PLUG



Notes :

- 1.The jack spring shall be in contact with the mate plug in the range as shown with the symbol *.
- 2.Dimensions are in millimeters.

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7. △ Endurance test sequence :

Test Item		Test group						
		A	B	C	D	E	F	G
3.1	Contact resistance	1,6	1,6	1,6	1,6		1	1,6
3.2	Insulation resistance	2,7	2,7	2	2		2,6	2,7
3.3	Dielectric strength	3,8	3,8	3,7	3,7		3,7	3,8
4.1	Operating force	4,9	4	4,8	4,8		4	4
4.2	Terminal strength	5						
5.1	Humidity test		5					
5.2	Dry heat			5				
5.3	Cold				6			
5.4	Soldering test					1		
5.5	Operating endurance						5	
5.6	Resistance to soldering heat							5

Test sample quality : 2 pcs min. / group