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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 : 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±1°C

Relative humidity : 63% to 67%

Air pressure : 86kPa to 106kPa

Operating temperature range : -25°C to 65°C

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

2. Electrical characteristics :

	Item	Condition	Specifications
1	Rated voltage/ Rated current	With resistive load	AC/D.C.12V.1A
2	Contact resistance	Measurement shall be made at with small current 1000 Hz (100mA MAX.)	Make contacts
			Break contacts
			Slide switch contacts
3	Insulation resistance	A voltage of 500V DC shall be applied for 1 min. after which measurement shall be made. (For the insulation resistance test gauge refer to clause 6.)	Between the conductors which should not make contact under normal conditions.
			Between each terminal and insulated metal part.

ISSUE	DATE	WRN	CHKD	APVD	DESCRIPTIONS
	2004.07.12	陳樹民	夏正雄	楊仲民	
△x 2	2008.03.11	陸昌妹	夏正雄	郭遠峰	Modify the item 4.1/ 4.6
△x 1	2008.10.01	黃健瑋	夏正雄	郭遠峰	Add soldering condition shelf
△x 1	2012.08.22	劉秀慧	郭素玲	郭遠峰	Modify the item 4.6

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Item	Condition		Specifications		
4	Dielectric strength	500V AC (50 Hz to 60 Hz) for 1 min.	Between the conductors which should not make contact under normal conditions.	Without damage to parts, arcing or breakdown, etc.	
		Trip current : 2mA(For the insulation resistance test gauge refer to clause 6)	Between each terminal and insulated metal part.		
3. Mechanical characteristics :					
Item	Condition		Specifications		
1	Operating force	Insertion and withdrawal force shall be measured after inserting and withdrawing 3 times by using a gauge of standard dimensions(refer to clause 6) .	Mini size (ϕ 3.5)	2.5N ~ 30N(0.25Kgf ~ 3.0Kgf)	
2	Terminal strength	A static load of 5N(0.5Kgf) shall be applied to the tip of the terminals for 1 minute in any direction. A load of 10N (1.02Kgf) shall be applied to the tip of the terminals in the axial direction. The set shall be subjected to 1 bent through an angle of 90° in the right and left directions of terminal thickness.	Without cracks or excessive looseness to the terminal. Electrical and mechanical characteristics shall be satisfied. Without play in terminal, etc.		
3	Contact pressure	Contact pressure during the make contact shall be measured in the operation by using the minimum dimensional gauge.	The contact pressure between chip, ring, sleeve and the contact piece.	1N (102gf) MIN.	
		The contact pressure during the break contact shall be measured under the normal conditions.	The contact pressure with the make contact.		

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4. Endurance characteristics :

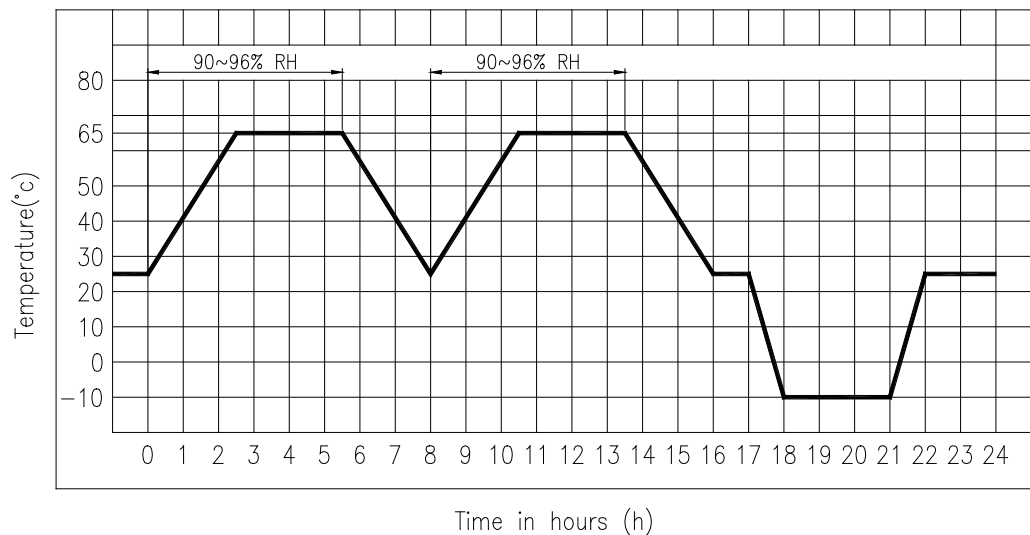
	Item	Condition	Specifications
1	Solderability	Temperature of solder : $\triangle 250^{\circ}\text{C}\pm 5^{\circ}\text{C}$ Time of dip : 3 ± 0.5 seconds Length of dip : $2\pm 0.5\text{mm}$ (from top of terminal)	The soldered area shall be covered a minimum of 90% of the surface being immersed.
2	Cold	The jack shall be stored for 96 hours at a temperature of $-25\pm 3^{\circ}\text{C}$ immediately after which measurement shall be made.	Dimensional requirements shall be satisfied. Electrical and mechanical characteristics shall be satisfied.
3	Dry heat	The jack shall be stored for 96 hours at a temperature of $70\pm 2^{\circ}\text{C}$ immediately after which measurement shall be made.	Dimensional requirements shall be satisfied. Electrical and mechanical characteristics shall be satisfied.
4	Damp heat (Steady state)	The jack shall be stored at a temperature of $40\pm 2^{\circ}\text{C}$ and a humidity of 90% to 95% for 96 hours. Then the jack shall be maintained at standard atmospheric conditions for 1 to 2 hours after which measurement shall be made.	Dimensional requirements shall be satisfied. Electrical and mechanical characteristics shall be satisfied.
5	Sulfuration	The terminals of miniature jack shall be dipped into a dilute solution of 3% potassium sulfide for 1 minute.	Electrical and mechanical characteristics shall be satisfied.
		Contact resistance	60 m Ω MAX.

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Item	Condition	Specifications		
△ 6 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 △ ₃ About the plastic properties , Please refer to the data sheet of plastic.			
	<p style="text-align: center;"> ----- Topside PCB ————— 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		2.5N~30N(0.25Kgf~3.0Kgf)		
Withdrawal force		2.5N~30N(0.25Kgf~3.0Kgf)		

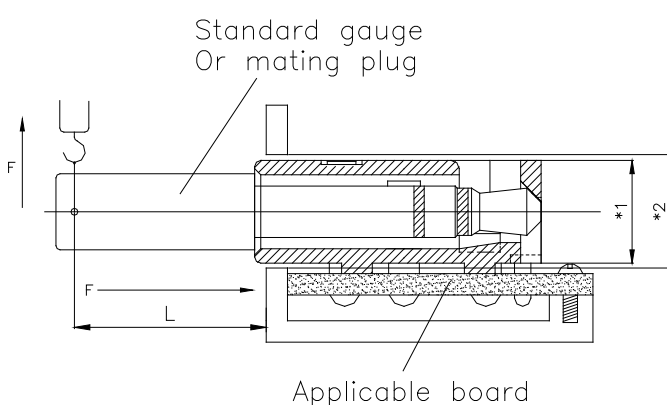
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Item	Condition	Specifications
7 Composite temperature/humidity cyclic test	<p>The jack shall be subjected to 10 continuous cycles, each as shown in figure below. Then the jack shall be stored at standard atmospheric conditions for 24 hours for recovery, after which measurement shall be made.</p> <p>*Temperature shall be reduced from 25°C to -10°C within 30 min.</p> <p>*Humidity uncontrolled at a temperature less than 25°C</p>	<p>Dimensional requirements shall be satisfied.</p> <p>Electrical and mechanical characteristics shall be satisfied.</p>



8 Operating endurance	<p>Inserting and withdrawing shall be made by the following mating plug or standard dimension gauge, (Refer to Clause 6. grease applied) at a speed of 10 to 20 times / min. Measurement shall be made for every 1000 times.</p> <table border="1"> <tr> <td>Mini type (φ 3.5)</td> <td>1-504-090-11 (SB-79051)</td> </tr> </table>	Mini type (φ 3.5)	1-504-090-11 (SB-79051)	<p>Electrical and mechanical characteristics shall be satisfied.</p>
	Mini type (φ 3.5)	1-504-090-11 (SB-79051)		
	<table border="1"> <tr> <td>3000 times</td> <td>Without load</td> </tr> <tr> <td>2000 times</td> <td>Rated resistance load</td> </tr> </table>	3000 times	Without load	
3000 times	Without load			
2000 times	Rated resistance load			
<p>Contact resistance</p>		<p>50 mΩ MAX.</p>		

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Item	Condition	Specifications						
9 Torsion strength	<p>The standard dimension gauge, (Refer to Clause 6) shall be fixed to the set in the actual used condition. Following plug shall be applied to horizontal and vertical directions to the jack each for 5 times in 5 seconds. After which measurement shall be made.</p>  <p>*1 Outside dimension of jack *2 Outside dimension of jack +0.3 mm</p> <table border="1"> <thead> <tr> <th>Size</th> <th>L (cm)</th> <th>Condition</th> </tr> </thead> <tbody> <tr> <td>Mini (ϕ 3.5)</td> <td>2.5</td> <td>40N (4.08Kgf)</td> </tr> </tbody> </table>	Size	L (cm)	Condition	Mini (ϕ 3.5)	2.5	40N (4.08Kgf)	<p>Without damage to the jack body or terminal bending. Electrical and mechanical characteristics shall be satisfied.</p>
Size	L (cm)	Condition						
Mini (ϕ 3.5)	2.5	40N (4.08Kgf)						

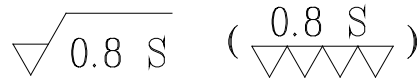
△5. Soldering condition shelf life about 6 months depend on storage condition of humidity, temperature and others factors.

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6. For $\phi 3.5$ Mini size

6.1. Standard dimension

Roughness of the surface :



Materials : Stainless steel

