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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: -10°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	DC12V.1A
2	Contact resistance	Measurement shall be made at with small current 1000 Hz (100 mA or less)	Make contacts
			Break contacts
			Slide switch contacts
3	Insulation resistance	A voltage of 500V DC shall be applied for 1 minute. 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
	2002.03.08	STEVEN	KUNG		UPDATE
△x 3	2008.03.11	ALLAN	JOHNSON	DICK	Modify the item 4.1/ 4.2

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	Item	Condition		Specifications
4	Dielectric strength	500V AC (50 Hz to 60 Hz) for 1 minute. Trip current : 2mA (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.	Without damage to parts, arcing or breakdown, etc.

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)	3N~25N (0.3kgf~2.5kgf)
2	Terminal strength	A static load of 10N (1kgf) shall be applied to the tip of the terminals for 1 min. in any direction. A load of 10N (1kgf) shall be applied to the terminal tip 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 during the break contact shall be measured under the normal conditions.	The contact pressure between chip, ring, sleeve and the contact piece.	1N (100gf) MIN.

4. Endurance characteristics

	Item	Condition		Specifications
1	\triangle Solderability	Temperature of solder : 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 95% of the surface being immersed.

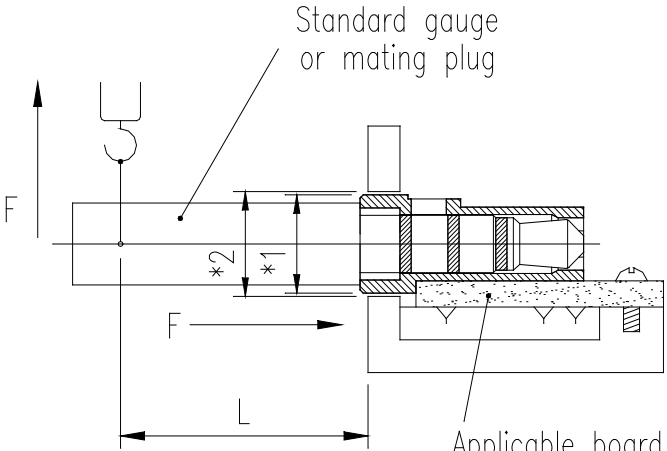
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Item	Condition	Specifications	
Δ 2 Resistance to Soldering Heat Test	Wave soldering Process	Electrical and mechanical characteristics shall be satisfied, and not show remarkable failure.	
	Profile Feature		Pb-Free Assembly Topside PCB Padside PCB
	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		
	<p>Temperature vs Time graph. The Y-axis is Temperature and the X-axis is Time. The graph shows two curves: a dashed red line for Topside PCB and a solid blue line for Padside PCB. The curves show a preheat phase (ts) and a peak phase (tp). Key temperature points are labeled: Ts min, Ts max, Tp, Tp1 max, and Ts1 max. The peak time tp is shown to be 2-3 seconds.</p>		
	Soldering Iron Test		
	Temperature of soldering Iron : 380±10°C		Same as Wave soldering Process
Soldering time : 3±1 seconds			
Insertion force	3N~25N (0.3kgf~2.5kgf)		
Withdrawal force	3N~25N (0.3kgf~2.5kgf)		

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Item	Condition	Specifications
3 Cold	The jack shall be stored for 2 hours at a temperature of $-25\pm 3^{\circ}\text{C}$ immediately after which measurement shall be made.	Dimensional requirements shall be satisfied.
4 Dry heat	The jack shall be stored for 2 hours at a temperature of $70\pm 2^{\circ}\text{C}$ immediately after which measurement shall be made.	Electrical and mechanical characteristics shall be satisfied.
5 Sulfuration (Plating Ag only)	The terminals of miniature jack shall be dipped into a dilute solution of 3% potassium sulfide for 1 minute.	60 mΩ MAX.
6 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>

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Item	Condition	Specifications						
7 Operating endurance	<p>Inserting and withdrawing shall be made by the following mating plug or standard dimension gauge, (Refer to item 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>5000 times</td> <td>Without load</td> </tr> <tr> <td>2000 times</td> <td>Rated resistance load</td> </tr> </table> <p>contacts resistance</p>	5000 times	Without load	2000 times	Rated resistance load	<p>Electrical and mechanical characteristics shall be satisfied.</p> <p>40mΩ MAX.</p>		
5000 times	Without load							
2000 times	Rated resistance load							
8 Torsion strength	<p>The standard dimension gauge, (Refer to item 6) shall be fixed to the set in the actual used condition, Following plug shall be inserted.</p> <p>A load specified in condition below shall be applied to horizontal and vertical directions to the jack for 5 times in 5 seconds each, 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 (4.08 Kgf)</td> </tr> </tbody> </table>	Size	L (cm)	Condition	Mini (φ 3.5)	2.5	40N (4.08 Kgf)	<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 (4.08 Kgf)						

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5. Standard dimension gauge

5.1 For Mini size

Standard dimension

Roughness of the surface:

Materials: Stainless steel

