

JKCR Electronics co., Ltd.

SPECIFICATION

TITLE DC POWER JACK	SPC. NO.	PAGE : 1 OF 5 DATE : 2013.04.08
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1.Scope

This specification applies to unified polarity type DC jack used in electronic equipment.
For DC input use.

2.Standard atmospheric conditions

Unless otherwise specified. The standard range of atmospheric condition for making measurements and tests are as follows :

Ambient temperature : 15°C to 35°C

Relative humidity : 25% to 80%

Air pressure : 86kPa to 106kPa

If there is any doubt about the results, measurements shall be made within the follow limits:

Ambient temperature : 20±2°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 85°C

3.Mechanical characteristics

	Item	Conditions	Specification
1	Insertion force	Measurement shall be made after insertion and withdrawal using standard plug gauge 3 times.	2.94~29.4N (0.3~3kgf)
2	Withdrawal force	Measurement shall be made after insertion and withdrawal using standard plug gauge 3 times.	

ISSUE	DATE	WRTN	CHKD	APVD	DESCRIPTIONS

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4. Electrical characteristics

	Item	Conditions	Specification
1	Rating		DC24V · 3.5A
2	Contact resistance	1K Hz Measured at small current (1A or less)	30 mΩ or less
3	Insulation resistance	A voltage of 500V DC shall be applied for a minute. Between conductors which should not make contact under normal conditions after which measurement shall be made.	100MΩ MIN.
4	Dielectric strength	Between conductors which should not make contact under normal conditions. 500V AC (50 to 60Hz) for 1 min.(trip current 2mA)	Without distinct damage.

5. Endurance characteristics

	Item	Conditions	Specification
1	Solderability	The terminals shall be dipped into soldering flux, and shall be immersed into molten solder of 245 °C±5°C for a period 3±0.5 seconds.	A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed.
2	Resistance to soldering heat	The terminal for a printed circuit board : Temperature of solder : 260 ±5°C Dip time : 5 ±1 seconds The terminal for a lead wire : Temperature of solder : 350 ±10°C Dip time : 3 ±1 seconds	Electrical and mechanical characteristics shall be satisfied.
3	Cold	The jack shall be stored at a temperature of -40°C±2°C for 96 hours. And then it shall be subjected to the controlled recovery conditions for 0.5 hours after which measurement shall be made.	Electrical and mechanical characteristics shall be satisfied.
4	Dry heat	The jack shall be stored at a temperature of 70°C ±2°C for 96 hours. And then it shall be subjected to the controlled recovery conditions for 0.5 hours after which measurement shall be made.	There shall be not show remarkable failure.
5	Humidity	The Pin Jack shall be subject to 90% ~95%RH, 40°C±2°C for 96 hours, and shall then be conditioned at room ambient conditions for a period of 30 minutes.	Electrical and mechanical characteristics shall be satisfied. Insulation resistance : 50MΩ MIN. Contact resistance : 50mΩ MAX.

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Item	Conditions	Specification
6 Life test	Insertion and withdrawal shall be made with the mating plugs and jacks for 5000 cycles at a speed of 10~30 cycles/min.	Insertion force : 29.4N MAX (3Kgf) Withdrawal force : 2.94~29.4N (0.3~3kgf) Contact resistance : Between plug and contact : 100mΩ MAX. Each closed contact : 60mΩ MAX.

6.Warning:

Dc power jack shall be dipped, warning to inferior contact by flux and transform mold.

Resistance to flux : It shall be prevention between PCB and housing.

Transform mold : It must not add direct heat to Dc power jack

Temperature of solder : 255°C MAX.

Preheat temperature : 90°C MAX.

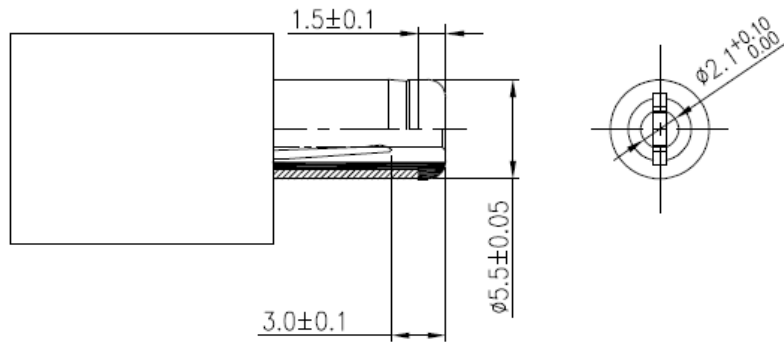
Preheat time : 2 minute MAX.

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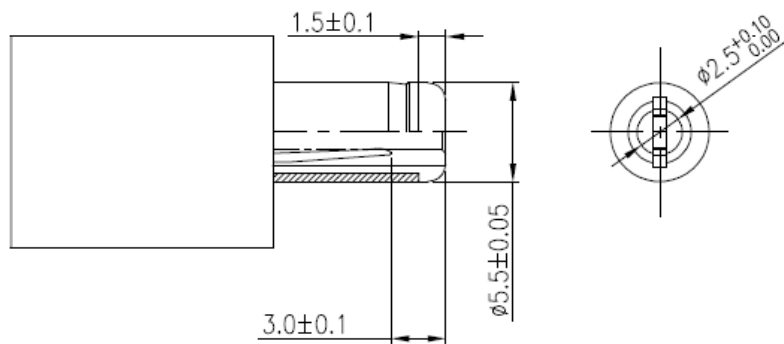
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7. Mating plug dimension

Tuning Fork Design



Ø2.0 PLUG



Ø2.5 PLUG

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APPLICATION NOTES:

1. ROSIN AND OTHER INSULATING AND CAUSTIC MATERIAL CAN NOT BE DIPPED INTO THE ROCKET DURING SOLDERING.
2. PRODUCTS CAN NOT BE BLOWN WITH AIR GUN OR CLEANED WITH A SOLVENT AFTER SOLDERING.
3. ALL PARTS OF THE PRODUCTS CAN NOT BE DISSOLVED BEFORE SOLDERING.
4. AVOID STORING THE PRODUCTS IN A PLACE AT HIGH TEMPERATURE, HIGH HUMIDITY AND IN CORROSIVE GASES.
5. SHELF LIFE IS LESS THAN 180 DAYS SINCE THE GOODS WARE SENT OUT FROM OUR FACTORY. OUR COMPANY DOESN'T ACCEPT RESPONSIBILITY FOR REJECTS IF THE SHELF LIFE OF GOODS EXCEEDS 180 DAYS.
6. PLEASE FEEL FREE TO REPORT TO US IF YOU DISCOVER THE INFERIOR GOODS, SO THAT WE CAN TAKE NOTE, CHECK, AND TRACK AND IMPROVE THEM. THANKS.