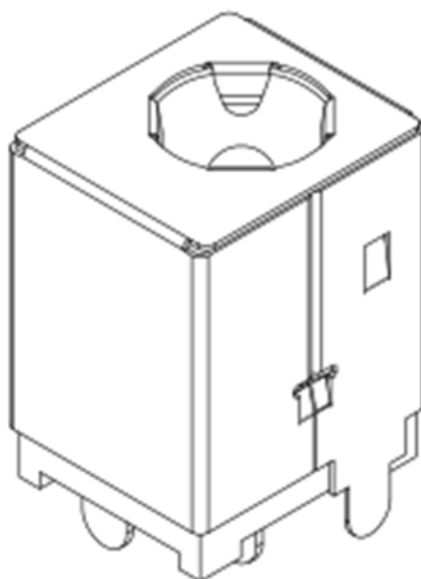


PRODUCT SPECIFICATION

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1.0 SCOPE.

DC Power Jack, Thru-Hole, Vertical, Shielded, Ø2.50mm.

2.0 PRODUCT NAME AND PART NUMBER.

DC Power Jack, Ø2.50mm: DCJ250-15.

3.0 PRODUCT SHAPE, DIMENSIONS AND MATERIAL.

Please refer to drawings.

4.0 RATINGS.

Current rating 7 Amp Max

Voltage rating DC 20 Volts Max.

Operating Temperature Range -20°C to +70°C

Storage Temperature..... -25°C to +80°C

Storage Humidity..... Relative Humidity: ≤80%

5.0 TEST AND MEASUREMENT CONDITIONS.

Product is designed to meet electrical, mechanical and environmental performance requirements specified in Paragraph 6.0. All tests are performed at ambient environmental conditions unless otherwise specified.

6.0 PERFORMANCE.

| Item | Test Condition | Requirement |
|------------------------|--|---|
| Examination of Product | Visual, dimensional and functional inspection as per quality plan. | Product shall meet requirements of product drawing and specification. |

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6.1 Electrical Performance.

| Item | Test Condition | Requirement |
|-----------------------|--|---|
| Contact Resistance | Measure contact resistance of mated connector using test current of 10mA max and 20 mV open circuit voltage. In accordance with EIA-364-23. | 30mΩ max initial |
| Insulation Resistance | Measure by applying test potential between the adjacent contacts, and between the contacts and frame. In accordance with EIA-364-21. | 100 MΩ minimum @250V DC for 1 minute |
| Dielectric Strength | Measure by applying AC 500V between the adjacent contacts, and between the contacts and frame for 1minute. In accordance with EIA-364-20. | There shall be no breakdown. |

6.2 Mechanical Performance.

| Item | Test Condition | Requirement |
|--------------------------------|--|---|
| Durability | 5,000 cycles of operation at a rate of 20~30 cycles per minute. In accordance with EIA-364-09. | (1). Contact resistance: 50mΩmax. (2). Insertion and withdraw force: 3~30N. (3). Electrical characteristics and mechanical characteristics shall be satisfied. Without distinct damage. |
| Insertion and Extraction force | Operation Speed: 25.4 mm/min. Measure the force required to mate connector. In accordance with EIA-364-13. | Insertion and extraction force: 3~30N |
| Terminal Strength | A static force of 20N being applied to the centre pin in the X axis direction for 10sec. | There shall be no sign of damage mechanically and electrically. |

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| Random Vibration | Mate connectors and subject to: 5.35 Gs RMS. For a period of 15 minutes in each of 3 mutually perpendicular axes. In accordance with EIA-364-28D. | No electrical discontinuity greater than 1 µsec. shall occur. No damage to product. Contact resistance: 50mΩ Max |
| Mechanical Shock | Accelerate Velocity: 30Gs Waveform: Half-sine shock plus Duration: 11msec Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks. In accordance with EIA-364-27 | No electrical discontinuity greater than 1 µsec. shall occur. No damage to product. Contact resistance: 50mΩ Max |

6.3 Environmental Performance and Others.

| Item | Test Condition | Requirement |
|-------------------------|--|---|
| Salt Water Spray | Air pressure of salt spray: 0.07 0.17Mpa; Salt Concentration: 5%; PH value: 6.5-7.2; Temperature of salt-bath: 35±2°C; Test time: 24H(continuous). In accordance with EIA-364-26 | Without excessive Corrosion or crack in appearance |
| Temperature Life (High) | Subject Jack to 80±2°C for 96 hours, after test in normal condition for 30mins. In accordance with EIA-364-17 | (1). Contact resistance: 50mΩmax. (2). Insulation resistance: 50MΩmin. (3). There shall be no sign of damage mechanically and electrically. |
| Humidity Test | Subject Jack to 40±2°C and humidity 90-95% for 96 hours, after test keep in normal condition for 30 minutes. In accordance with EIA-364-31. | |
| Temperature Life (Low) | Subject Jack to -25±2°C for 96 hours, after test in normal condition for 30mins. In accordance with EIA-364-59 | |
| Temperature Rise | Measure the temperature rise of pin, when rated current is passed Mated with plug: CUI PP3-002BH. In accordance with EIA-364-70 Method 1. | 30°C Max |

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| Solderability | The tip of the terminals shall be dipped 2mm in the solder bath at a temperature of $240 \pm 5^{\circ}\text{C}$ for $3 \pm 0.5\text{sec}$. | A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed. |
| Resistance to Hand Soldering Heat | The jack shall be hand soldered at the temperature of $350 \pm 5^{\circ}\text{C}$ in $3 \pm 1\text{sec}$ after which measurement shall be made. | Electrical characteristics and mechanical characteristics shall be satisfied. Without distinct damage. |
| Resistance to Soldering Heat. | The jack shall be placed into the temperature of $260 \pm 5^{\circ}\text{C}$ in $5 \pm 1\text{sec}$ (Automatic soldering) | Electrical characteristics and mechanical characteristics shall be satisfied. Without distinct damage. |

7.0 PRODUCT QUALIFICATION AND TEST SEQUENCE

PRODUCT SPECIFICATION

| | | | | | | | | |
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| Test Item | Group | | | | | | | | | | |
|-----------------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|---|--|
| | A | B | C | D | E | F | G | H | I | J | |
| Examination of Product | 1,12 | 1,3 | 1,9 | 1,6 | 1,8 | 1,3 | 1,3 | 1,5 | 1,6 | | |
| Contact Resistance | 2,9 | | 2,6 | 2,5 | 2,6 | | | 2,4 | 2,5 | | |
| Insulation Resistance | 3,10 | | 3,7 | | 3,7 | | | | | | |
| Dielectric Withstanding Voltage | 4,11 | | 4,8 | | 4 | | | | | | |
| Durability | 6 | | | | | | | | | | |
| Temperature Rise | 7 | | | | | | | | | | |
| Insertion and Extraction force | 5,8 | | | | | | | | | | |
| Terminal Strength | | 2 | | | | | | | | | |
| Humidity | | | 5 | | 5 | | | | | | |
| Solderability | | | | | | 2 | | | | | |
| Resistance to Soldering Heat | | | | | | | 2 | | | | |
| Resistance to Hand Soldering Heat | | | | | | | | | | | |
| Salt Spray | | | | | | | | 3 | | | |
| Temperature (Heat) | | | | | | | | | 3 | | |
| Temperature (Cold) | | | | | | | | | 4 | | |
| Random Vibration | | | | 3 | | | | | | | |
| Mechanical Shock | | | | 4 | | | | | | | |

Revision details

PRODUCT SPECIFICATION

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| Revision | Information | Page | Release Date |
|----------|------------------------|------|--------------|
| A | Specification Released | - | 28/10/2015 |
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