

Products pecification

1. Scope

- (a).This specification covers the performance, tests and quality requirements for the J27A plug and Receptacle
(b).Applicable Product Models:J27A series.

2. Applicable document

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

3. Materials and Plating

- (a).Housing: PPS (UL 94V-0) ,Blue
(b).Terminal: Copper Alloy/ Gold Plated
(c).Accessories Terminal: :Stainless steel/ Surface Passivation

4. Applicable P.C.B. Layout

Refer to the drawing

5. Rating

- (a).Voltage Rating: 300V DC/AC (RMS)
(b).Current Rating: 3 A DC/AC (RMS)
(c).Operating temperature:-55°C ~ +125°C

6 Product packaging, storage, and transportation requiren

- (a) The connector should be stored in an environment with a temperature of -5°C~+30°C, a relative humidity of 25%~75%, no corrosive gases such as acidic or alkaline gases in the surrounding air, good ventilation, cleanliness, and dryness.
(b) Connectors are small precision products, and excess materials can easily cause blockage of connector holes and short circuits between contacts. Therefore, when the connector is not plugged in, it should be covered with a dust cover.
(c) Products packaged in boxes can be transported by any means of transportation while avoiding direct rain or snow.

7. Performance

Test Item	Requirement	Test Condition
Appearance of product	Meets requirements of Product drawing	Visual inspection.

Electrical Performance

Contact resistance	10mΩ Max.	Mate connectors with dry circuit to test Contact Resistance
Insulation resistance	5000 MΩ Min.	Apply a voltage of 500V DC between adjacent contacts and between contacts to ground
Withstanding Voltage	No breakdown and arcing	Apply a voltage of AC 1000 V for 1 minute between adjacent contacts and between contacts to ground, leakage current 1mA

Mechanical Performance

Durability	Appearance: Nodamage; Contact Resistance $\leq 10\text{m}\Omega$	500 cycles mating and unmating test at the speed 10 cycles per minute
Shock	Appearance: Nodamage; Current Discontinuity $\leq 1\mu\text{s}$	Mated connectors shocked 3 times per 6 directions, 100mA current applied; Shock strength 735m/s^2 , duration 11ms 100mA
Vibration	Appearance: Nodamage; Current Discontinuity $\leq 1\mu\text{s}$; Contact Resistance $\leq 10\text{m}\Omega$	Mated connectors subjected to vibration conditions: 10~2000Hz, amplitude 0.75mm, 2h per axis, 100mA current applied Power spectral density $0.4\text{g}^2/\text{Hz}$

Environmental & Other Performance

Salt Spray	Appearance: No damage.	Sample suspended, $5\pm 1\%$ NaCl mist at $35\pm 2^\circ\text{C}$ for 48h, rinsed with distilled water, recovery 1~2h
Heat Resistance	Appearance: No damage; Contact Resistance $\leq 10\text{m}\Omega$; Insulation Resistance $\geq 5000\text{M}\Omega$; Withstand Voltage $\geq 300\text{V}$	Mated connector exposed to the condition of $125\pm 2^\circ\text{C}$ for 96 hours, recovery time 1~2 hours
Cold Resistance	Appearance: No damage; Contact Resistance $\leq 10\text{m}\Omega$; Insulation Resistance $\geq 5000\text{M}\Omega$; Withstand Voltage $\geq 300\text{V}$	Mated connectors exposed to the condition of $-55\pm 2^\circ\text{C}$ for 96 hours, recovery time 1~2 hours
Solder-ability	Solder tails shall pass 95% min coverage	Solder temperature: $260\pm 5^\circ\text{C}$ Duration: $5\pm 0.5\text{sec}$