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| ENGINEERING DEPT. | | PRODUCT SPECIFICATION For CF24 Series Connector System | SPEC.NO.: SPCF041B |
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1. SCOPE:

This specification contains the test requirement of subject connectors when tested under the condition and inserted on the specified size FPC and FFC

2. APPLICABLE STANDARDS:

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|------------------|---|
| MIL - STD - 202 | Methods for test of connectors for electronic equipment |
| MIL - STD - 1344 | Test methods for electrical connectors |
| J-STD-020 | Resistance to soldering Temperature for through hole Mounted Devices |
| SS-00254 | Test methods for electronic components ,LEAD-FREE soldering Part design standards |

3. APPLICABLE SERIES NO.: **CF24 Series**

4. SHAPE, CONSTRUCTION AND DIMENSIONS

See attached drawings

5. MATERIALS

See attached drawings

6. ACCOMMODATED P.C.BOARD

6.1 Thickness: 0.5 mm (.020") ~ 2.0 mm (.079")

6.2 P.C. Board Layout: See attached drawings

7. ACCOMMODATED FPC/FFC THICKNESS

0.3 +0.04/-0.01 mm (.012+.002/-0")



REVIEWED : Eisley APPROVED : Clark VERIFIED : Sandy.

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8. ELECTRICAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|---------------------------|---|-----------------------------|
| 8.1 | Rated current and voltage | | 0.4A max. 50V AC/DC max. |
| 8.2 | Contact resistance | Dry circuit of DC 20 mV max. , 100 mA max. | Less than 30 mΩ |
| 8.3 | Dielectric strength | When applied AC 250 V 1 minute between adjacent terminal | No change |
| 8.4 | Insulation resistance | When applied DC 500 V between adjacent terminal or ground | More than 100 MΩ |

9. MECHANICAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|-----|---|--|---|
| 9.1 | Contact retaining force in insulator | Retention speed 25± 3 mm per minute from housing | More than 0.2 Kgf(1.96N) |
| 9.2 | FFC / FPC withdrawal force (Reference data) | Measure force to withdrawal using 0.30 mm thickness FPC / FFC at speed 25± 3 mm per minute | (0.02× no. of Contacts) Kgf min. (0.196× no. of Contacts) N min. |

10. ENVIRONMENTAL PERFORMANCE:

| | ITEM | TEST CONDITION | REQUIREMENT |
|------|------------------|--|--|
| 10.1 | Temperature rise | Then carried the rated current | 30°C max. |
| 10.2 | Vibration | 1.5 mm 10-55-10 HZ / minute each 2 hours for X , Y and Z directions | Appearance: No damage Discontinuity: 1 micro second max. |
| 10.3 | Solder ability | Tin-Lead Process: Soldering time: 5 ± 0.5 second Soldering pot: 230 ± 5°C Lead-Free Process Soldering time: 3 ± 0.5 second Soldering pot: 245 ± 5°C | Minimum: 90% of immersed area |

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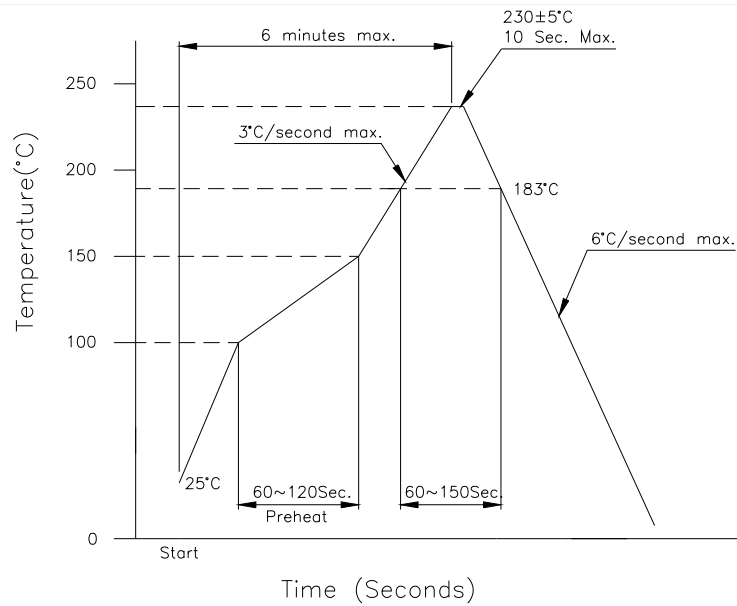
| | ITEM | TEST CONDITION | REQUIREMENT |
|------|------------------------------|--|--|
| 10.4 | Resistance to soldering heat | Tin-Lead Process Refer Reflow temperature profile(12.1) Soldering time: 10 second Max. Soldering pot: 230 ± 5 °C Lead-Free Process Refer Reflow temperature profile(12.2) Soldering time: 20 second Max. Soldering pot: 250~260°C | No damage |
| 10.5 | Heat aging | 85 ± 2°C , 96 hours | No damage |
| 10.6 | Humidity | 40 ± 2°C , 90-95% RH , 96 hours measurement must be taken within 30 min. after tested | Appearance: No damage Contact resistance: Less than twice of initial Dielectric strength: To pass para 8-3 |
| 10.7 | Temperature cycling | One cycle consists of : (1) -55 ⁺⁰ / ₋₃ °C , 30 min. (2) Room temp. 10-15 min. (3) 85 ⁺³ / ₋₀ °C , 30 min. (4) Room temp. 10-15 min. | Appearance: No damage Contact resistance: Less than twice of initial |
| 10.8 | Salt spray | Temperature: 35 ± 3°C Solution: 5 ± 1% Spray time: 48 ± 4 hours Measurement must be taken after water rinse | Appearance: No damage Contact resistance: Less than twice of initial |

11. AMBIENT TEMPERATURE RANGE: -25 to + 85°C

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12. Recommended IR Reflow Temperature Profile:

12.1 Using Typical Solder Paste



12.2 Using Lead-Free Solder Paste

