


| | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
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| APPLICABLE STANDARD | | | | | | | | | | | |
| RATING | Operating Temperature Range | | -55℃ to 105℃ (Note1) | | | Storage Temperature Range | | -10℃ to +60℃ (Note3) | | | |
| | Operating Humidity Range | | 20% to 80% (Note2) | | | Storage Humidity Range | | 40% to 70% (Note3) | | | |
| | Applicable Connector | | DF51K-6S-2C(###) | | | Current | AWG 30 : 0.5A AWG 28 : 1A AWG 22-26 : 2A | | | | |
| | Voltage | | 250V AC/DC | | | | | | | | |
| SPECIFICATIONS | | | | | | | | | | | |
| ITEM | | TEST METHOD | | | | REQUIREMENTS | | | QT | AT | |
| CONSTRUCTION | | | | | | | | | | | |
| General Examination | | Visually and by measuring instrument. | | | | According to drawing. | | | 0 | 0 | |
| Marking | | Confirmed visually. | | | | | | | 0 | 0 | |
| ELECTRICAL CHARACTERISTICS | | | | | | | | | | | |
| Contact Resistance | | 20mV MAX, 1mA (DC or 1000Hz). | | | | 30 mΩ MAX. | | | 0 | - | |
| Millivolt Level Method | | | | | | | | | | | |
| Insulation Resistance | | 500 V DC. | | | | 1,000 MΩ MIN. | | | 0 | - | |
| Voltage Proof | | 650 V AC for 1 min. | | | | No flashover or breakdown. | | | 0 | - | |
| MECHANICAL CHARACTERISTICS | | | | | | | | | | | |
| Mechanical Operation (Sn Plating) | | 30 times insertion and extraction. | | | | ①Contact resistance: 30mΩ MAX ②No damage, crack or looseness of parts. | | | 0 | - | |
| Mechanical Operation (Au Plating) | | 50 times insertion and extraction. | | | | ①Contact resistance: 30mΩ MAX ②No damage, crack or looseness of parts. | | | 0 | - | |
| Mating and unmating force (Sn Plating) | | It takes out and inserts with a conformity connector. | | | | ①Insertion Force: 38.0N MAX ②Extraction Force : 1.5N MIN | | | 0 | - | |
| Mating and unmating force (Au Plating) | | It takes out and inserts with a conformity connector. | | | | ①Insertion Force: 29.7N MAX ②Extraction Force: 1.5N MIN | | | 0 | - | |
| Vibration | | Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction. | | | | ①No electrical discontinuity of 1 μ s. ②No damage, crack or looseness of parts. | | | 0 | - | |
| Shock | | Acceleration 490 m/s ² duration of pulse 11 ms at 3 times for 3 directions. | | | | | | | 0 | - | |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | | | | | | |
| Damp Heat (Steady State) | | Exposed at 40 ± 2 °C , humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.) | | | | ①Contact resistance: 30 mΩ MAX. ②Insulation resistance: 500MΩ MIN. ③No damage, crack or looseness of parts. | | | 0 | - | |
| Remarks Note 1: Include the temperature rising by current. Note 2: No condensing Note 3: Apply to the condition of long term storage for unused products before pcb on board, after pcb board , operating temperature and humidity range is applied for interim storage during transportation. | | | | | | | | | | | |
| | | | | | DRAWN J.S CHO 21.05.14 | DESIGNED J.S CHO 21.05.14 | CHECKED S.M.LIM 21.05.14 | APPROVED S.M.LIM 21.05.14 | RELEASED  | | |
| Unless otherwise specified, refer to IEC 60512. | | | | | | | | | | | |
| NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST | | | | | | | | | | | |
| HIROSE KOREA CO.,LTD. | | | SPECIFICATION SHEET | | | | PART NO. DF51K-6P-2H(805) | | | | |
| CODE NO.(OLD) CL | | DRAWING NO. ELC4-633490 | | | CODE NO. CL 6652-0075-8-805 | | | | | 1 2 | |

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| Rapid Change of Temperature | Temperature -55 °C → +105 °C Time 30min → 30min Under 5 Cycles. (The transferring time of the tank is 2 to 3 MIN) (After leaving the room temperature for 1 to 2h.) | ①Contact resistance: 30 mΩ MAX. ②Insulation resistance: 1,000MΩ MIN. ③No damage, crack or looseness of parts. | O | — |
| Dry Heat | Exposed at 105±2 °C, 96h | ①Contact resistance: 30 mΩ MAX. ②Insulation resistance: 1,000MΩ MIN. ③No damage, crack or looseness of parts. | O | — |
| Cold | Exposed at -55±3 °C, 96h | ①Contact resistance: 30 mΩ MAX. ②Insulation resistance: 1,000MΩ MIN. ③No damage, crack or looseness of parts. | O | — |
| Resistance To Soldering Heat | Reflow time Number of reflow cycles : 2cycles MAX Duration above 220°C, 60sec. MAX. Peak temperature : 250°C 10sec. MAX | No deformation of case or excessive looseness of the terminals. | O | — |
| Solderability | Soldering temperature: 245 °C Duration of immersion :soldering, for 5 sec. | New uniform coating of solder shall cover minimum of 95 % of the surface Being immersed. | O | — |
| Recommended Temperature Profile | <p><u>REFLOW TEMPERATURE PROFILE USING LEAD-FREE SOLDER PASTE (REFERENCE)</u></p> <p>NUMBER OF REFLOW CYCLES 2CYCLES MAX. THE TEMPERATURE IS MEASURED IN THE TERMINAL LEAD PART.</p> <p>ADDITIONAL FACTORS, SUCH AS SOLDER PASTE TYPE, PCB SIZE AND OTHER MOUNTED COMPONENTS COULD AFFECT THE PROFILES. THEREFORE, A THOROUGH EVALUATION OF MOUNTING CONDITION IS REQUIRED PRIOR TO PRODUCTION.</p> | | | |

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