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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| | 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°C to 105°C (Note1) | | | Storage Temperature Range | | -10°C to +60°C (Note3) | | | |
| | Operating Humidity Range | | 20% to 80% (Note2) | | | Storage Humidity Range | | 40% to 70% (Note3) | | | |
| | Applicable Connector | | DF51K-30DS-2C(###) | | | Current | | AWG 30 : 0.5A AWG 28 : 1.0A | | | |
| | Voltage | | 100V AC/DC | | | | | AWG 26 : 1.5A AWG 22-24 : 2.0A | | | |
| 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 | | 500 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 : 128.2N MAX ②Extraction Force : 7.7N MIN | | | | 0 | - |
| Mating and unmating force (Au Plating) | | It takes out and inserts with a conformity connector. | | | | ①Insertion Force : 81.2N MAX ②Extraction Force : 7.5N MIN | | | | 0 | - |
| Vibration | | Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 directions. | | | | 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 | DESIGNED | CHECKED | APPROVED | RELEASED | | |
| | | | | | J.S CHO | J.S CHO | S.M.LIM | S.M.LIM |  | | |
| | | | | | 21.05.14 | 21.05.14 | 21.05.14 | 21.05.14 | | | |
| 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-30DP-2H(800) | | | |
| CODE NO.(OLD) | | | DRAWING NO. | | | CODE NO. | | | 1 | | |
| CL | | | ELC4-633522 | | | CL 6652-0082-3-800 | | | 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 of 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> | | | |

NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST

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| HIROSE KOREA CO.,LTD. | SPECIFICATION SHEET | PART NO. DF51K-30DP-2H(800) |
| CODE NO.(OLD) CL | DRAWING NO. ELC4-633522 | CODE NO. CL 6652-0082-3-800 |
| | | 2/2 |