



| APPLICABLE STANDARD | | | | | | |
|--|-----------------------------|---|-------------------------------------|---|----------------|----------|
| RATING | OPERATING TEMPERATURE RANGE | -55℃ TO +85℃ | STORAGE TEMPERATURE RANGE | -10℃ TO +50℃(PACKED CONDITION) | | |
| | VOLTAGE | 50V AC/DC | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90%MAX(NOT DEWED) | | |
| | CURRENT | 0.5A (note1) | APPLICABLE CABLE | t=0.3±0.05mm, GOLD PLATED | | |
| SPECIFICATIONS | | | | | | |
| ITEM | | TEST METHOD | | REQUIREMENTS | QT | AT |
| CONSTRUCTION | | | | | | |
| GENERAL EXAMINATION | | VISUALLY AND BY MEASURING INSTRUMENT. | | ACCORDING TO DRAWING. | × | × |
| MARKING | | CONFIRMED VISUALLY. | | | × | × |
| ELECTRIC CHARACTERISTICS | | | | | | |
| VOLTAGE PROOF | | 150V AC FOR 1 min±5sec. | | NO FLASHOVER OR BREAKDOWN. | × | × |
| INSULATION RESISTANCE | | 100±10V DC. | | 500MΩ MIN. | × | × |
| CONTACT RESISTANCE | | AC 20mV MAX (1KHz), 1mA. | | 100mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | × | × |
| MECHANICAL CHARACTERISTICS | | | | | | |
| VIBRATION | | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm FOR 10 CYCLES IN 3 AXIAL DIRECTIONS. | | ① NO ELECTRICAL DISCONTINUITY OF 1 μ s. ② CONTACT RESISTANCE: 100mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| SHOCK | | 981 m/s ² , DURATION OF PULSE 6ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS. | | | × | — |
| MECHANICAL OPERATION | | 20 TIMES INSERTIONS AND EXTRACTIONS. | | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| FPC RETENTION FORCE | | MEASURED BY APPLICABLE FPC/FFC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.) | | DIRECTION OF INSERTION: 22N MIN. (note2) | × | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | |
| CORROSION SALT MIST | | EXPOSED AT 35±2℃, CONCENTRATION 5±1wt%,pH VALUE 6.5 TO 7.2 SALT WATER SPRAY FOR 96h. | | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — |
| RAPID CHANGE OF TEMPERATURE | | TEMPERATURE -55→+15 TO +35→+85→+15 TO +35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES. | | ① CONTACT RESISTANCE: 100mΩ MAX. ② INSULATION RESISTANCE: 50MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT (STEADY STATE) | | EXPOSED AT 40±2℃, RELATIVE HUMIDITY 90 TO 95%, 96h. | | ① CONTACT RESISTANCE: 100mΩ MAX. ② INSULATION RESISTANCE: 1MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT,CYCLIC | | EXPOSED AT -10 TO +65 °C RELATIVE HUMIDITY 90 TO 96 % 10 CYCLES, TOTAL 240h. | | | × | — |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE | |
| △ | | | | | | |
| REMARK Unless otherwise specified, refer to JIS C 5402. | | | | APPROVED | MO.ISHIDA | 13.09.02 |
| | | | | CHECKED | YN.TAKASHITA | 13.09.02 |
| | | | | DESIGNED | SU.SUNAGA | 13.08.30 |
| | | | | DRAWN | SU.SUNAGA | 13.08.30 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC4-348616-00 | |
| HRS | SPECIFICATION SHEET | | PART NO. | FH50-28S-0.5SH | | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL580-4005-5-00 △ 1/2 | | |

| SPECIFICATIONS | | | | | |
|---|--|---|-----------------|---|-----|
| ITEM | TEST METHOD | REQUIREMENTS | QT | AT | |
| DRY HEAT | EXPOSED AT 85±2℃, 96h. | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — | |
| COLD | EXPOSED AT -55±3℃, 96h. | | × | — | |
| SULPHUR DIOXIDE [JIS C 60068-2-42] | EXPOSED AT 40±2℃, RELATIVE HUMIDITY 80±5 %, 25±5 ppm FOR 96h. | ① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — | |
| HYDROGEN SULPHIDE [JIS C 60068-2-43] | EXPOSED AT 40±2℃, RELATIVE HUMIDITY 80±5 %, 10 TO 15 ppm FOR 96h. | | × | — | |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 245±3℃ FOR IMMERSION DURATION, 3±0.3 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | — | |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING: PEAK TMP. 250℃MAX. REFLOW TMP. OVER 230℃ WITHIN 60 sec. 2) SOLDERING IRONS: TMP. 350±10℃ FOR 5±1 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | — | |
| <div>(note1)</div> <div>WHEN THE SAME VALUE OF CURRENT ARE APPLID TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.</div> <div>(note2)</div> <div>FIXING THE FPC/FFC IS RECOMMENDED, IF THE VERTICAL LOAD IS EXPECTED TO BE APPLIED TO THE FPC/FFC.</div> <div>(note3)</div> <div>BLISTERS WHICH MAY BE GENERATED ON THE HOUSING DO NOT AFFECT PRODUCT PERFORMANCE.</div> <div>(note4)</div> <div>INCOMPLETE MATING PREVENTION STRUCTURE OF THIS CONNECTOR DOES NOT COVER ALL THE POSSIBLE CASES OF INCOMPLETE MATING MODE. BE SURE TO NEED THE INSTRUCTION MANUAL FOR YOUR UNDERSTANDING OF THE FEATURES AND ATTENSIONS.</div> | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | ELC4-348616-00 | | |
|  | SPECIFICATION SHEET | PART NO. | FH50-28S-0.5SH | | |
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