



| APPLICABLE STANDARD | | | | | |
|--|-----------------------------|---|---|--|----------------|
| RATING | OPERATING TEMPERATURE RANGE | -40 °C TO 85 °C | STORAGE TEMPERATURE RANGE | -10 °C TO 50 °C (PACKED CONDITION) | |
| | VOLTAGE | 50 V AC / DC | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90 % MAX (NOT DEWED) | |
| | CURRENT | 0.5 A (note 1) | APPLICABLE CABLE | t=0.3±0.05mm, GOLD PLATING | |
| SPECIFICATIONS | | | | | |
| ITEM | | TEST METHOD | REQUIREMENTS | QT | AT |
| CONSTRUCTION | | | | | |
| GENERAL EXAMINATION | | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | × | × |
| MARKING | | CONFIRMED VISUALLY. | | × | × |
| ELECTRIC CHARACTERISTICS | | | | | |
| CONTACT RESISTANCE | | 1mA(DC OR 1000Hz). | 50 mΩ MAX. INCLUDING FPC,FPC BULK RESISTANCE (L=8mm) | × | × |
| INSULATION RESISTANCE | | 100 V DC. | 500 MΩ MIN. | × | × |
| VOLTAGE PROOF | | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | × | × |
| MECHANICAL CHARACTERISTICS | | | | | |
| MECHANICAL OPERATION | | 20 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| VIBRATION | | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 AXIAL DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 mΩ MAX. | × | — |
| SHOCK | | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS. | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| FPC RETENTION FORCE | | MEASURED BY APPLICABLE FPC. (CONNECTOR,FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm) | DIRECTION OF INSERTION: 0.4×n N MIN (n:NUMBER OF CONTACTS) | × | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| RAPID CHANGE OF TEMPERATURE | | TEMPERATURE-40→+15TO+35→+85→+15TO+35°C TIME 30→ 2 TO 3 → 30→ 2 TO 3 min. UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT (STEADY STATE) | | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ 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 240 h. | | × | — |
| DRY HEAT | | EXPOSED AT 85±2 °C, 96 h. | | × | — |
| COLD | | EXPOSED AT -40±3°C, 96 h. | | × | — |
| CORROSION SALT MIST | | EXPOSED AT 35±2 °C 5% SALT WATER SPRAY FOR 96 h. | | × | — |
| SULPHUR DIOXIDE [JIS C 0090] | | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 25±5 PPM FOR 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — |
| HYDROGEN SULPHIDE [JIS C 0092] | | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 10 TO 15 PPM FOR 96 h. | | × | — |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
| Q | | | | | |
| REMARK | | | APPROVED | NM. NISHIMATSU | 12. 03. 21 |
| | | | CHECKED | HS. SAKAMOTO | 12. 03. 21 |
| | | | DESIGNED | RT. IKEDA | 12. 03. 20 |
| | | | DRAWN | NM. SANPEI | 12. 03. 14 |
| Unless otherwise specified, refer to JIS C 5402. | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC4-159266-02 |
| HRS | SPECIFICATION SHEET | | PART NO. | FH12-**S-0. 5SVA (54) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL586 | △ 1/2 |

| SPECIFICATIONS | | | | | |
|---|---|--|------------------------|---|-----|
| ITEM | TEST METHOD | REQUIREMENTS | QT | AT | |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING (TO BE 2 TIMES MAX.) PEAK TMP. 250 °C MAX REFLOW TMP. 230 °C MIN FOR 30 sec. PRE-HEATING. 150 TO 200°C 90 TO 120 sec. 2)SOLDERING IRONS : 350 ± 10 °C, FOR 5± 1 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | X | — | |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235±5 °C FOR IMMERSION DURATION, 2±0.5 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | X | — | |
| <p>(note 1)</p> <p>WHEN THE SAME VALUE OF CURRENT ARE APPLIED TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.</p> | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | ELC4-159266-02 | | |
|  | SPECIFICATION SHEET | PART NO. | FH12-***S-0. 5SVA (54) | | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO | CL586 |  | 2/2 |