



| APPLICABLE STANDARD | | | | | |
|---|---|-----------------|--|--|---|
| RATING | OPERATING TEMPERATURE RANGE | -55 °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±0.03mm, 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 | | | | | |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | | NO FLASHOVER OR BREAKDOWN. | × | × |
| INSULATION RESISTANCE | 100 V DC. | | 500 MΩ MIN. | × | × |
| CONTACT RESISTANCE | AC 20 mV MAX (1 KHz) , 1 mA . | | 100 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | × | × |
| MECHANICAL CHARACTERISTICS | | | | | |
| VIBRATION | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, — m/s ² FOR 10 CYCLES IN 3 DIRECTIONS. | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 mΩ MAX. | × | — |
| SHOCK | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS. | | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| FPC RETENTION FORCE | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.) | | ① DIRECTION OF INSERTION : 0.15N × n MIN. ② VERTICAL DIRECTION OF INSERTION : 0.15N × n MIN. (note 2) | × | — |
| LOCK OPERATION FORCE | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.) | | ① CLOSING FORCE : 0.3N × n MAX.(4 ~ 10 POS.) 0.1N × n MAX.(11 ~ 50 POS.) ② OPENING FORCE : 0.05N × n MIN. | × | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| CORROSION SALT MIST | EXPOSED AT 35 °C , 5 % SALT WATER SPRAY FOR 96 h. | | ① CONTACT RESISTANCE: 100 mΩ 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→+15T ₀ +35→+85→+15T ₀ +35°C TIME 30→ 2~3 → 30→ 2~3 min UNDER 5 CYCLES. | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | | | × | — |
| DAMP HEAT,CYCLIC | EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES,TOTAL 240 h. | | ① CONTACT RESISTANCE: 100 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. | × | — |
| COUNT | DESCRIPTION OF REVISIONS | | DESIGNED | CHECKED | DATE |
| REMARK | | | | APPROVED | NM. NISHIMATSU 10.11.01 |
| | | | | CHECKED | HS. SAKAMOTO 10.11.01 |
| | | | | DESIGNED | TS. OONO 10.10.29 |
| | | | | DRAWN | TS. OONO 10.10.29 |
| Unless otherwise specified, refer to JIS C 5402. | | | DRAWING NO. | ELC4-155198-07 | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | PART NO. | FH19SC-**S-0.5SH(09) | |
|  | SPECIFICATION SHEET | | CODE NO. | CL580 |  1/2 |
| | HIROSE ELECTRIC CO., LTD. | | | | |

| SPECIFICATIONS | | | | | |
|--|--|---|-------------|----------------------|----------------|
| ITEM | TEST METHOD | REQUIREMENTS | QT | AT | |
| DRY HEAT | EXPOSED AT 85 °C, 96 h. | ① CONTACT RESISTANCE: 100 mΩ MAX. | x | — | |
| COLD | EXPOSED AT -55°C, 96 h. | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x | — | |
| SURPHUR DIOXIDE [JIS C 0090] | EXPOSED AT 40 °C , RELATIVE HUMIDITY 80% , 25 PPM FOR 96 h. | ① CONTACT RESISTANCE: 100 mΩ MAX. | x | — | |
| HYDROGEN SULPHIDE [JIS C 0092] | EXPOSED AT 40 °C , RELATIVE HUMIDITY 80% , 10 ~ 15 PPM FOR 96 h. | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | x | — | |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235 °C FOR IMMERSION DURATION, 2 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed. | x | — | |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING : PEAK TMP. 250 °C MAX . REFLOW TMP. 230 °C MIN FOR 60 sec. 2) SOLDERING IRONS : TMP. 350 ± 5 °C FOR 5 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | x | — | |
| <p>(note 1)</p> <p>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.</p> <p>(note 2)</p> <p>THIS PRODUCT HAS FLIP-LOCK CONSTRUCTION. FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.</p> | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC4-155198-07 |
| HRS | SPECIFICATION SHEET | | PART NO. | FH19SC-**S-0.5SH(09) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO | CL580 | △ 2/2 |