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| APPLICABLE STANDARD                                                                 |                             |                                                                                                                                                                                                            |                                     |                                                                                                                                                                                          |                                                                                           |
| RATING                                                                              | OPERATING TEMPERATURE RANGE | -55 °C TO 105 °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                                                                                                                                                                                                      | 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.                                                                                                                                                                                        |                                     |                                                                                                                                                                                          | ×                                                                                         |
| ELECTRICAL CHARACTERISTICS                                                          |                             |                                                                                                                                                                                                            |                                     |                                                                                                                                                                                          |                                                                                           |
| VOLTAGE PROOF                                                                       |                             | 250 V AC FOR 1 min.                                                                                                                                                                                        |                                     | NO FLASHOVER OR BREAKDOWN.                                                                                                                                                               | ×                                                                                         |
| INSULATION RESISTANCE                                                               |                             | 100 V DC.                                                                                                                                                                                                  |                                     | 500 MΩ MIN.                                                                                                                                                                              | ×                                                                                         |
| CONTACT RESISTANCE                                                                  |                             | AC/DC 20 mV MAX ( AC:1 KHz ) , 1 mA .                                                                                                                                                                      |                                     | 100 mΩ MAX.<br>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 μs.                                                                                                                                                   | ×                                                                                         |
| SHOCK                                                                               |                             | 981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.                                                                                                                       |                                     | ② CONTACT RESISTANCE: 100 mΩ MAX.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                                                          | ×                                                                                         |
| MECHANICAL OPERATION                                                                |                             | 20 TIMES INSERTIONS AND EXTRACTIONS.                                                                                                                                                                       |                                     | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                                                          | ×                                                                                         |
| FPC RETENTION FORCE                                                                 |                             | MEASURED BY APPLICABLE FPC.<br>(THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.)                                                                                                                  |                                     | DIRECTION OF INSERTION :<br>(TOP CONTACT)<br>0.2N × NUMBER OF CONTACTS MIN.<br>(BOTTOM CONTACT)<br>0.3N × NUMBER OF CONTACTS MIN.<br>(note 1)                                            | ×                                                                                         |
| ENVIRONMENTAL CHARACTERISTICS                                                       |                             |                                                                                                                                                                                                            |                                     |                                                                                                                                                                                          |                                                                                           |
| CORROSION SALT MIST                                                                 |                             | EXPOSED AT 35±2 °C , 5 % SALT WATER SPRAY FOR 96 h.                                                                                                                                                        |                                     | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.<br>③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.                                   | ×                                                                                         |
| RAPID CHANGE OF TEMPERATURE                                                         |                             | TEMPERATURE -55→+15T <sub>0</sub> +35→+105→+15T <sub>0</sub> +35°C <br>TIME 30→ 2 TO 3 → 30→ 2 TO 3 min UNDER 5 CYCLES. |                                     | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② INSULATION RESISTANCE: 50 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                   | ×                                                                                         |
| DAMP HEAT (STEADY STATE)                                                            |                             | EXPOSED AT 40±2 °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.<br>② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY)<br>③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY)<br>④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | ×                                                                                         |
|                                                                                     | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                                                                                   | DESIGNED                            | CHECKED                                                                                                                                                                                  | DATE                                                                                      |
|  | 3                           | DIS-F-00005614                                                                                                                                                                                             | SE. YOKOYAMA                        | HS. HIRAHARA                                                                                                                                                                             | 20200611                                                                                  |
| REMARK                                                                              |                             |                                                                                                                                                                                                            |                                     | APPROVED                                                                                                                                                                                 | MO. ISHIDA                                                                                |
| This product is RoHS compliant.<br>Unless otherwise specified, refer to IEC 60512.  |                             |                                                                                                                                                                                                            |                                     | CHECKED                                                                                                                                                                                  | HS. SAKAMOTO                                                                              |
|                                                                                     |                             |                                                                                                                                                                                                            |                                     | DESIGNED                                                                                                                                                                                 | YS. EBI                                                                                   |
|                                                                                     |                             |                                                                                                                                                                                                            |                                     | DRAWN                                                                                                                                                                                    | NM. SANPEI                                                                                |
|                                                                                     |                             |                                                                                                                                                                                                            |                                     | Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                           |                                                                                           |
|  | SPECIFICATION SHEET         |                                                                                                                                                                                                            | PART NO.                            | FH34SRJ-*S-0. 5SH(99)                                                                                                                                                                    |                                                                                           |
|                                                                                     | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                                                                                            | CODE NO.                            | CL580                                                                                                                                                                                    |  1/2 |

| SPECIFICATIONS                          |                                                                                                                                                     |                                                                                              |    |    |  |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----|----|--|
| ITEM                                    | TEST METHOD                                                                                                                                         | REQUIREMENTS                                                                                 | QT | AT |  |
| DRY HEAT                                | EXPOSED AT 105±2 °C, 96 h.                                         | ① CONTACT RESISTANCE: 100 mΩ MAX.                                                            | x  | —  |  |
| COLD                                    | EXPOSED AT -55±3°C, 96 h.                                                                                                                           | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                   | x  | —  |  |
| SULPHUR DIOXIDE<br>[JIS C 60068-2-42]   | EXPOSED AT 40±2 °C ,<br>RELATIVE HUMIDITY 80±5%<br>25±5 ppm FOR 96 h.                                                                               | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.              | x  | —  |  |
| HYDROGEN SULPHIDE<br>[JIS C 60068-2-43] | EXPOSED AT 40±2 °C ,<br>RELATIVE HUMIDITY 80±5% ,<br>10 TO 15 ppm FOR 96 h.                                                                         | ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.                          | x  | —  |  |
| SOLDERABILITY                           | SOLDERED AT SOLDER TEMPERATURE,<br>235±5°C FOR IMMERSION DURATION,<br>2±0.5 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 :<br>PEAK TMP. 250 °C MAX .<br>REFLOW TMP. OVER 230 °C WITHIN 60 sec.<br>2) SOLDERING IRONS :<br>TMP. 350 ± 10 °C FOR 5±1 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                              | x  | —  |  |

**(note1)**

FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.  
DO NOT CLOSE THE ACTUATOR BEFORE INSERTING FPC EVEN AFTER THE CONNECTOR IS MOUNTED ONTO A PCB. CLOSING THE ACTUATOR WITHOUT FPC COULD MAKE THE CONTACT GAP SMALLER, WHICH INCREASES THE FPC INSERTION FORCE.

THIS CONNECTOR HAS CONTACTS ON THE BOTH TOP AND BOTTOM.

 THERE'S A CASE WHICH FPC/FFC RETENTION FORCE DOESN'T FULFILL THE VALUE, BECAUSE FPC SPECIFICATION AFFECTS THE RESULT OF FPC/FFC RETENTION FORCE.

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|-------------------------------------------------------------------------------------|---------------------------|-------------|------------------------|---------------------------------------------------------------------------------------|-----|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                      |                           | DRAWING NO. |                        | ELC4-159714-05                                                                        |     |
|  | SPECIFICATION SHEET       | PART NO.    | FH34SRJ-*S-0. 5SH (99) |                                                                                       |     |
|                                                                                     | HIROSE ELECTRIC CO., LTD. | CODE NO     | CL580                  |  | 2/2 |