| APPLICA                | BLE STAN          | DARD   |  |           |   |   |   |                      |                                 |      |       |
|------------------------|-------------------|--|--|-----------|---|---|---|----------------------|---------------------------------|------|-------|
| OPERATING<br>TEMPERATU |                   | RE RANGE -55 °C TO 10  |  | 5 °C      | I EIVIF   |   | ERATURE RANGE                                   |                      | -10 °C TO 50 °C (PACKED CONDITI |      |       |
| RATING                 | VOLTAGE           |  | 50 V AC / D  | С         | HUMID   | ITY RANG  | INVINCE   |                      | RELATIVE HUMIDITY 90 % MAX (1   |      | EWED) |
| CURRENT                |                   | 0.5 A  |  |           | ICABLE CABLE t=0.3±0.03mm, GOLD F   |   |   | PLATI                | NG                              |      |       |
|                        |                   |  | SPEC   | IFIC      | ATIO  | ٧S  |   |                      |                                 |      |       |
|                        | EM                |  | TEST METHOD  |           |   |   | RE  | EQU                  | IREMENTS                        | QT   | AT    |
|                        | UCTION            |  |  | 07010     |   |   |   |                      |                                 | -    | T     |
| GENERAL E<br>MARKING   | XAMINATION        | VISUALLY AND BY MEASURING INSTRUMENT.  |  |           |   | ACCORDING TO DRAWING.   |   |                      |                                 | ×    | ×     |
| -                      | ICAL CHAI         |  |  |           |   |   |   |                      |                                 | ×    | ×     |
| VOLTAGE F              |                   |  | FOR 1 min.   |           |   | NO FLASHOVER OR BREAKDOWN.  |   |                      |                                 | ×    | ×     |
| INSULATIO              |                   |  |  |           |   | 500 MΩ MIN.   |   |                      |                                 | ×    | ×     |
| RESISTANC              |                   |  |  |           |   |   |   |                      |                                 | ~    |       |
| CONTACT F              | RESISTANCE        | AC/DC 20 mV MAX ( AC:1 KHz ) , 1 mA .  |  |           | 100 m <u>(</u>  |   |   |                      | ×                               | ×    |       |
|                        |                   |  |  |           |   | INCLUDING FPC,FFC BULK RESISTANCE<br>(L=8mm)  |   |                      |                                 |      |       |
|                        | NICAL CHA         |  |  |           |   |   |   |                      |                                 |      |       |
| VIBRATION              |                   | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE  |  |           |   | -   | ① NO ELECTRICAL DISCONTINUITY OF                |                      |                                 |      | —     |
| SHOCK                  |                   | 0.75 mm, FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.<br>981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms |  |           |   | 1 μs.<br>(2) CONTACT RESISTANCE: 100 mΩ MAX.  |   |                      |                                 | ×    | _     |
|                        |                   | AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.   |  |           | <ul> <li>3 NO DAMAGE, CRACK AND LOOSENESS<br/>OF PARTS.</li> </ul>  |   |   |                      |                                 |      |       |
| MECHANIC               |                   | 20 TIMES   | S INSERTIONS AND EXTRA                                     | ACTION    | IS.   | (1) CONTACT RESISTANCE: 100 m $\Omega$ MAX.   |   |                      |                                 |      | —     |
| OPERATIO               | N                 |  |  |           |   | ② NO DAMAGE, CRACK AND LOOSENESS<br>OF PARTS.   |   |                      |                                 |      |       |
| FPC RETEN              | ITION FORCE       | MEASURED BY APPLICABLE FPC.<br>(THICKNESS OF FPC SHALL BE t=0.30mm<br>AT INITIAL CONDITION.)   |  |           |   | DIRECTION OF INSERTION :  |   |                      |                                 | ×    | _     |
|                        |                   |  |  |           |   | `   | (TOP CONTACT)<br>0.2N × NUMBER OF CONTACTS MIN. |                      |                                 |      |       |
|                        |                   | AT INITI/  | AL CONDITION.)   |           |   |   | X NUMBE   |                      |                                 |      |       |
|                        |                   |  |  |           |   | 0.3N × NUMBER OF CONTACTS MIN.<br>( <i>note 1</i> )   |   |                      |                                 |      |       |
|                        |                   |  | ACTERISTICS  |           |   | (note   | e 1)  |                      |                                 |      |       |
|                        |                   |  | D AT 35±2 °C , 5 % SALT                                    | r wate    | R   | ① CO  | NTACT R   | FSIS                 | <b>STANCE</b> : 100 mΩ MAX.     | ×    | _     |
|                        |                   | SPRAY FOR 96 h.  |  |           | ② NO DAMAGE, CRACK AND LOOSENESS<br>OF PARTS.   |   |   |                      |                                 |      |       |
|                        |                   |  |  |           | ③ NO EVIDENCE OF CORROSION WHICH<br>AFFECTS TO OPERATION OF<br>CONNECTOR.   |   |   |                      |                                 |      |       |
| RAPID CHANGE OF        |                   | TEMPERATURE-55→+15то+35→+85→+15то+35°C   |  |           | $\begin{array}{ccc} \textcircled{1} & \text{CONTACT RESISTANCE:} & 100 \ \text{m}\Omega \ \text{MAX.} \\ \hline \textcircled{2} & \text{INSULATION RESISTANCE:} \ \textbf{50} \ \text{M}\Omega \ \text{MIN.} \end{array}$ |   |   |                      | ×                               | _    |       |
| TEMPERATURE            |                   | TIME $30 \rightarrow 2 \text{ to } 3 \rightarrow 30 \rightarrow 2 \text{ to } 3 \text{ min}$   |  |           |   |   |   |                      |                                 |      |       |
| DAMP HEA               | DAMP HEAT         |  | UNDER 5 CYCLES.<br>EXPOSED AT 40±2 °C.                     |           |   | ③ NO DAMAGE, CRACK AND LOOSENESS<br>OF PARTS.   |   |                      |                                 | ×    | _     |
| (STEADY S              | TATE)             | RELATI   | /E HUMIDITY 90 TO 95 %,                                    | 96 h.     |   |   |   |                      |                                 | ^    |       |
| DAMP HEA               | DAMP HEAT, CYCLIC |  | EXPOSED AT -10 TO +65 °C,<br>RELATIVE HUMIDITY 90 TO 96 %, |           |   | (1) CONTACT RESISTANCE: 100 m $\Omega$ MAX.<br>(2) INSULATION RESISTANCE: 1 M $\Omega$ MIN. |   |                      |                                 | ×    | -     |
|                        |                   | 10 CYCLES,TOTAL 240 h.   |  |           | (AT HIGH HUMIDITY)  |   |   |                      |                                 |      |       |
|                        |                   |  |  |           |   |   |   | RE                   | SISTANCE: 50 MΩ MIN.            |      |       |
|                        |                   |  |  |           |   | ``  | AT DRY)<br>DAMAGE                               | CE                   | ACK AND LOOSENESS               |      |       |
|                        |                   |  |  |           |   | -   | PARTS.  | ., e.                |                                 |      |       |
| COUN                   | IT DE             | SCRIPTIC   | ON OF REVISIONS  |           | DESIG   | NED   |   |                      | CHECKED                         | DA   | TE    |
| $\mathbf{\nabla}$      |                   |  |  |           |   |   |   |                      |                                 |      |       |
| REMARK                 |                   |  |  |           |   |   | APPROV  |                      | NF. MIYAZAKI                    |      | 5. 10 |
| This produ             | uct is RoHS       | compliant.   |  |           |   | CHECK   |   | HS. SAKAMOTO         |                                 | 5.10 |       |
|                        |                   | •  |  |           |   |   | KN. KOBAYASHI                                   |                      | 5.10                            |      |       |
| -                      |                   | t AT:Assurance Test X:Applicable Test  |  |           |   |   | NM. YONEYAMA<br>ELC-346126-5                    | 17. 05. 10<br>-50-00 |                                 |      |       |
|                        |                   |  | PART   |           |   |   |   |                      |                                 |      |       |
| HRS                    |                   |  | CATION SHEET   |           |   |   |   |                      |                                 |      |       |
|                        | HIR               | OSE EI   | ECTRIC CO., LTD.   | CO., LTD. |   | NO.   | CL580-1257-1-50                                 |                      | -1257-1-50                      | Δ    | 1/2   |

| SPECIFICATIONS                        |  |   |    |    |  |  |  |
|---------------------------------------|--|---|----|----|--|--|--|
| ITEM                                  | TEST METHOD  | REQUIREMENTS  | QT | AT |  |  |  |
| DRY HEAT                              | EXPOSED AT 85±2 ℃, 96 h.   | $ \textcircled{1}  \textbf{CONTACT RESISTANCE:}  100 \text{ m}\Omega \text{ MAX.} $                       | ×  | —  |  |  |  |
| COLD                                  | EXPOSED AT -55±3°C, 96 h.  | ② NO DAMAGE, CRACK AND LOOSENESS<br>OF PARTS.   | ×  | —  |  |  |  |
| SULPHUR DIOXIDE<br>[JIS C 60068-2-42] | EXPOSED AT 40±2 ℃,<br>RELATIVE HUMIDITY 80±5%<br>25±5 ppm FOR 96 h.  | <ol> <li>CONTACT RESISTANCE: 100 mΩ MAX.</li> <li>NO DAMAGE, CRACK AND LOOSENESS<br/>OF PARTS.</li> </ol> | ×  | -  |  |  |  |
|                                       | EXPOSED AT 40 ± 2 ℃ ,<br>RELATIVE HUMIDITY 80 ± 5% ,<br>10 TO 15 ppm FOR 96 h.   | ③ NO EVIDENCE OF CORROSION WHICH<br>AFFECTS TO OPERATION OF<br>CONNECTOR.                                 | ×  | —  |  |  |  |
| SOLDERABILITY                         | SOLDERED AT SOLDER TEMPERATURE,<br>235±5°C FOR IMMERSION DURATION,<br>2±0.2 sec.   | A NEW UNIFORM COATING OF SOLDER<br>SHALL COVER A MINIMUM OF 95 % OF<br>THE SURFACE BEING IMMERSED.        | ×  | —  |  |  |  |
| RESISTANCE TO<br>SOLDERING HEAT       | <ol> <li>1) REFLOW SOLDERING :<br/>PEAK TMP. 250 °C MAX .<br/>REFLOW TMP. OVER 230 °C WITHIN 60 sec.</li> <li>2) SOLDERING IRONS :<br/>TMP. 350 ± 10 °C FOR 5±1 sec .</li> </ol> | NO DEFORMATION OF CASE OF<br>EXCESSIVE LOOSENESS OF THE<br>TERMINALS.                                     | ×  | _  |  |  |  |

## (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/FFC SPECIFICATION AFFECTS THE RESULT OF FPC/FFC RETENTION FORCE.

| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                           |         | DRAWIN                      | IG NO.      | ELC-346126-50-00 |      |  |
|--|---------------------------|---------|-----------------------------|-------------|------------------|------|--|
| H  | SPECIFICATION SHEET       |         | PART NO. FH34SRJ-32S-0. 5SH |             |                  | (50) |  |
|  | HIROSE ELECTRIC CO., LTD. | CODE NO | CL580                       | )-1257-1-50 | ◬                | 2/2  |  |