| APPLICA   | BLE STAN                | DARD   |                       |               |  |  |   |                                       |                               |          |          |  |
|---|-------------------------|--|-----------------------|---------------|--|--|---|---------------------------------------|-------------------------------|----------|----------|--|
|   | OPERATING<br>TEMPERATUR | E RANGE  | -55 °C TO 10          | 5 °C          |  | STORAGE<br>TEMPERATURE RAI   |   | -10                                   | -10°CTO 50°C (PACKED CONDITIO |          |          |  |
| RATING  | VOLTAGE                 |  | 50 V AC / DC          |               | _  | ATING C  | R STORAGE<br>E                              | RELATIVE HUMIDITY 90 % MAX(           |                               |          | EWED     |  |
|   | CURRENT                 |  | 0.5 A                 |               | APPL   | ICABLE   | CABLE                                       | t=0                                   | 0.3±0.03mm, GOLD              | PLAT     | NG       |  |
|   |                         | l.   | SPEC                  | IFIC          | ATIO   | NS   |   |                                       | ·                             |          |          |  |
| IT  | EM                      |  | TEST METHOD           |               |  |  | REC   | QUIRE                                 | MENTS                         | QT       | АТ       |  |
| CONSTR  | UCTION                  | •  |                       |               |  |  |   |                                       |                               |          |          |  |
|   | XAMINATION              |  | Y AND BY MEASURING IN | ISTRUM        | IENT.  | ACCO   | ACCORDING TO DRAWING.                       |                                       |                               |          | ×        |  |
| MARKING   |                         |  | MED VISUALLY.         |               |  |  |   |                                       |                               | ×        | ×        |  |
| VOLTAGE P                                       |                         | RACTERISTICS   |                       |               |  | NO EL AGUOVED OD DDE AKDOWAL   |   |                                       |                               | T ×      |          |  |
| INSULATION                                      |                         | 250 V AC FOR 1 min.<br>100 V DC.   |                       |               |  |  | NO FLASHOVER OR BREAKDOWN.<br>500 MΩ MIN.   |                                       |                               |          | ×        |  |
| RESISTANC                                       | E                       |  |                       |               |  | 300 1015   | 2 IVIIIN.                                   |                                       |                               | ×        | _ ×      |  |
| CONTACT F                                       | RESISTANCE              | AC/DC 20 mV MAX ( AC:1 KHz ) , 1 mA .  |                       |               |  | 100 mg   | 2 MAX.                                      |                                       |                               | ×        | ×        |  |
|   |                         |  |                       |               |  |  | INCLUDING FPC,FFC BULK RESISTANCE (L=8mm)   |                                       |                               |          |          |  |
| MECHAN  | IICAL CHA               | RACTE  | RISTICS               |               |  | 1 -  |   |                                       |                               |          |          |  |
| VIBRATION                                       |                         | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE  |                       |               |  | 0  | ① NO ELECTRICAL DISCONTINUITY OF            |                                       |                               |          | _        |  |
| SHOCK   |                         | 0.75 mm, FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.  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.   |                       |               |  | 3 NO   | 3 NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  |                                       |                               |          |          |  |
| MECHANICA<br>OPERATION                          |                         | 20 TIMES INSERTIONS AND EXTRACTIONS.   |                       |               |  | ① CONTACT RESISTANCE: $100 \text{ m}\Omega$ MAX. ② NO DAMAGE, CRACK AND LOOSENESS                              |   |                                       |                               |          | -        |  |
| FPC RETEN                                       | TION FORCE              | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.)       |                       |               |  | OF PARTS. DIRECTION OF INSERTION:  |   |                                       | ×                             | +_       |          |  |
|   |                         |  |                       |               |  | (TOF   | CONTACT                                     | Γ)                                    |                               |          |          |  |
|   |                         |  |                       |               |  | l l  | X NUMBER<br>TOM CON                         |                                       | ONTACTS MIN.                  |          |          |  |
|   |                         |  |                       |               |  |  |   |                                       | ONTACTS MIN.                  |          |          |  |
| ENN/IDOI  | INACNITAL               |  | OTEDIOTION            |               |  | (not   | e 1)  |                                       |                               |          |          |  |
|   |                         |  | CTERISTICS            | T \\/ \ \ T E | D  | ① CO   | NITACT DE                                   | CICTA                                 | NCE: 100 mΩ MAX               | ×        |          |  |
|   |                         | SPRAY FOR 96 h.  |                       |               |  | NO DAMAGE, CRACK AND LOOSENESS OF PARTS.     NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. |   |                                       |                               |          |          |  |
|   |                         |  |                       |               |  |  |   |                                       |                               |          |          |  |
| RAPID CHANGE OF<br>TEMPERATURE                  |                         | TEMPERATURE-55→+15To+35→<br>+105→+15To+35°C /2   |                       |               | (1) CONTACT RESISTANCE: $100 \text{ m}\Omega$ MAX. (2) INSULATION RESISTANCE: $50 \text{ M}\Omega$ MIN. (3) NO DAMAGE, CRACK AND LOOSENESS |  |   |                                       | ×                             | -        |          |  |
|   |                         | TIME $30 \rightarrow 2 \text{ To } 3 \rightarrow 30 \rightarrow 2 \text{ To } 3 \text{ min}$ |                       |               |  |  |   |                                       |                               |          |          |  |
|   | -                       | UNDER 5 CYCLES.  |                       |               |  | OF   | OF PARTS.                                   |                                       |                               |          |          |  |
| DAMP HEAT<br>(STEADY S                          |                         | EXPOSED AT 40±2 °C,<br>RELATIVE HUMIDITY 90 TO 95 %, 96 h.                                   |                       |               |  |  |   |                                       | ×                             | -        |          |  |
| DAMP HEAT                                       | T,CYCLIC                | EXPOSED AT -10 TO +65 °C,<br>RELATIVE HUMIDITY 90 TO 96 %,<br>10 CYCLES,TOTAL 240 h.         |                       |               | _  | ① CONTACT RESISTANCE: $100 \text{ m}\Omega$ MAX.   |   |                                       |                               | 1-       |          |  |
|   |                         |  |                       |               | ② INSULATION RESISTANCE: 1 M $\Omega$ MIN. (AT HIGH HUMIDITY)  |  |   |                                       |                               |          |          |  |
|   |                         |  |                       |               |  | 3 INS  | 3 INSULATION RESISTANCE: 50 M $\Omega$ MIN. |                                       |                               |          |          |  |
|   |                         |  |                       |               |  | (AT DRY)  ① NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   |   |                                       |                               |          |          |  |
| COUN  | T DE                    | SCRIPTIC   | ON OF REVISIONS       |               | DESIG  | l  | . ,   |                                       | CHECKED                       | D/       | ATE      |  |
| 3   |                         | DIS-F  | F-00005614            |               | SE. YOK  | OYAMA  |   |                                       | HS. HIRAHARA                  | 202      | 00611    |  |
| REMARK  |                         |  |                       |               | APPROVED   |  | D   | MO. ISHIDA                            |                               | 20131129 |          |  |
| This product is RoHS compliant.                 |                         |  |                       |               | CHECKE   | -  | HS. SAKAMOTO                                |                                       | 20131129                      |          |          |  |
| ·   |                         |  |                       | o IEC 60512   |  |  | DESIGNED                                    |                                       |                               |          | 20131128 |  |
| Unless otherwise specified, refer to IEC 60512. |                         |  |                       |               | DRAWN NM. SANPEI   |  |   | 20131128                              |                               |          |          |  |
|   |                         |  |                       |               | RAWING NO.   |  | 1216  | ELC4-159714-04<br>34SRJ-*S-0. 5SH(50) |                               |          |          |  |
| <b>KS</b>                                       | UP COS SI SOTRIO COLLET |  |                       | PART          |  |  |   | (0)<br><b>(</b> A                     | 1/2                           |          |          |  |
|   | -2-1                    | COL LELOTRIO CO., LTD. COI   |                       |               | CODE   | INO. ULJOU   |   |                                       | <u> </u>                      | 1/2      |          |  |

| SPECIFICATIONS                          |   |   |    |    |  |  |  |  |
|---|---|---|----|----|--|--|--|--|
| ITEM                                    | TEST METHOD .   | REQUIREMENTS  | QT | AT |  |  |  |  |
| DRY HEAT                                | EXPOSED AT 105±2 °C, 96 h.  | ① CONTACT RESISTANCE: 100 mΩ MAX.   | ×  | _  |  |  |  |  |
| COLD                                    | EXPOSED AT -55±3°C, 96 h.   | OF PARTS.   | ×  | -  |  |  |  |  |
| 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.   | <ol> <li>CONTACT RESISTANCE: 100 mΩ MAX.</li> <li>NO DAMAGE, CRACK AND LOOSENESS<br/>OF PARTS.</li> </ol> | ×  | _  |  |  |  |  |
| 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<br>AFFECTS TO OPERATION OF<br>CONNECTOR.                                 | ×  | _  |  |  |  |  |
| SOLDERABILITY                           | SOLDERED AT SOLDER TEMPERATURE,<br>235±5°C FOR IMMERSION DURATION,<br>2±0.5 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         | 1) REFLOW SOLDERING: PEAK TMP. 250 °C MAX. REFLOW TMP. OVER 230 °C WITHIN 60 sec. 2) SOLDERING IRONS: TMP. 350 ± 10 °C FOR 5±1 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE 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 SPECIFICATION AFFECTS THE RESULT OF FPC/FFC RETENTION FORCE.

| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |  |                           | DRAWIN   | IG NO.                 | ELC4-159714-04 |   |     |
|--|--|---------------------------|----------|------------------------|----------------|---|-----|
| HS.  |  | SPECIFICATION SHEET       | PART NO. | FH34SRJ-*S-0. 5SH (50) |                |   |     |
| 4 5 7  |  | HIROSE ELECTRIC CO., LTD. | CODE NO  |                        | CL580          | A | 2/2 |