


|  | COUNT                       | DESCRIPTION OF REVISIONS   | BY    | CHKD                       | DATE               |   | COUNT                                    | DESCRIPTION OF REVISIONS               | BY  | CHKD | DATE   |
|--|-----------------------------|--|-------|----------------------------|--------------------|---|--|--|---|------|--------|
| △  | 8                           | RE-5-2033  | Y.K.G | C.D.H                      | 18.10.04           | △   |  |  |   |      |        |
| △  | 1                           | RE-5-2988  | C.Y.H | C.D.H                      | 23.04.24           | △   |  |  |   |      |        |
| <b>APPLICABLE STANDARD</b>   |                             |  |       |                            |                    |   |  |  |   |      |        |
| RATING   | OPERATING TEMPERATURE RANGE | -40°C ~ +105°C (note 1)  |       |                            |                    | STORAGE TEMPERATURE RANGE   | -10°C ~ +50°C (Packed Condition)         |  |   |      |        |
|  | VOLTAGE                     | 50V [AC(rms) / DC]   |       |                            |                    | OPERATING OR STORAGE HUMIDITY RANGE   | Relative Humidity<br>90% MAX (NOT DEWED) |  |   |      |        |
|  | CURRENT                     | 0.5A [AC(rms) / DC] (note 2)   |       |                            |                    | APPLICABLE CABLE  | FPC/FFC (t=0.3±0.03mm)                   |  |   |      |        |
| <b>SPECIFICATIONS</b>  |                             |  |       |                            |                    |   |  |  |   |      |        |
| ITEM   |                             | TEST METHOD  |       |                            |                    | REQUIREMENTS  |  |  |   | QT   | AT     |
| <b>CONSTRUCTION</b>  |                             |  |       |                            |                    |   |  |  |   |      |        |
| GENERAL EXAMINATION  |                             | VISUALLY AND BY MEASURING INSTRUMENT   |       |                            |                    | ACCORDING TO DRAWING  |  |  |   | 0    | 0      |
| MARKING  |                             | CONFIRMED VISUALLY   |       |                            |                    |   |  |  |   | 0    | 0      |
| <b>ELECTRICAL CHARACTERISTICS</b>  |                             |  |       |                            |                    |   |  |  |   |      |        |
| CONTACT RESISTANCE   |                             | MATE APPLICABLE FPC/FFC AND APPLY A CURRENT OF AC 20mV MAX (1KHz), 1mA.  |       |                            |                    | 50mΩ MAX.<br>INCLUDING FPC/FFC BULK RESISTANCE(L=8mm)   |  |  |   | 0    | 0      |
| INSULATION RESISTANCE  |                             | MATE APPLICABLE FPC/FFC AND APPLY A VOLTAGE OF DC 100V.  |       |                            |                    | 500MΩ MIN.  |  |  |   | 0    | 0      |
| VOLTAGE PROOF  |                             | MATE APPLICABLE FPC/FFC AND APPLY A VOLTAGE OF AC 150V FOR 1 min.  |       |                            |                    | NO BREAKDOWN  |  |  |   | 0    | 0      |
| <b>MECHANICAL CHARACTERISTICS</b>  |                             |  |       |                            |                    |   |  |  |   |      |        |
| MECHANICAL OPERATION   |                             | 20 TIMES INSERTIONS AND EXTRATIONS.  |       |                            |                    | ① CONTACT RESISTANCE : 50mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS                                       |  |  |   | 0    | -      |
| VIBRATION  |                             | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE<br>0.75 mm, - m/s <sup>2</sup> FOR 10 CYCLES IN 3 DIRECTIONS.                                      |       |                            |                    | ① NO ELECTRICAL DISCONTINUITY OF 1μs.<br>② CONTACT RESISTANCE : 50mΩ MAX.   |  |  |   | 0    | -      |
| SHOCK  |                             | 981m/s <sup>2</sup> DIRECTION OF PULSE 6ms AT 3 TIMES<br>IN 3 DIRECTIONS.  |       |                            |                    | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS   |  |  |   | 0    | -      |
| FPC/FFC RETENSION FORCE  |                             | MEASURE BY APPLICABLE FPC/FFC.<br>(THICKNESS OF FPC/FFC SHALL BE t=0.30mm<br>AT INITIAL CONDITION.)                                      |       |                            |                    | HORIZONTAL DIRECTION : 0.3N X n MIN.<br>(n : NUMBER OF CONTACTS). (note 3)  |  |  |   | 0    | -      |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>   |                             |  |       |                            |                    |   |  |  |   |      |        |
| RAPID CHANGE OF TEMPERATURE  |                             | TEMPERATURE : -40 → 15 TO 35 → +105 → 15 TO 35 °C<br>TIME : 30 → 2~3 → 30 → 2~3 min<br>UNDER 5 CYCLES.                                   |       |                            |                    | ① CONTACT RESISTANCE : 50mΩ MAX.<br>② INSULATION RESISTANCE : 50MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS |  |  |   | 0    | -      |
| DAMP HEAT (STEADY STATE)   |                             | EXPOSED AT 40±2°C, 90~95 %, 96h.   |       |                            |                    |   |  |  |   | 0    | -      |
| DAMP HEAT, CYCLE   |                             | TEMPERATURE : -10 TO +65°C<br>HUMIDITY : 90 TO 95%<br>10 CYCLE, TOTAL 240h.  |       |                            |                    |   |  |  |   | 0    | -      |
| DRY HEAT   |                             | EXPOSED AT 105±2°C, 96h.   |       |                            |                    | ① CONTACT RESISTANCE : 50mΩ MAX.  |  |  |   | 0    | -      |
| COLD   |                             | EXPOSED AT -40±3°C, 96h.   |       |                            |                    | ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS  |  |  |   | 0    | -      |
| CORROSION SALT MIST  |                             | EXPOSED AT 35±2°C, 5% SALT WATER SPRAY FOR 96h.  |       |                            |                    | ① CONTACT RESISTANCE : 50mΩ MAX.  |  |  |   | 0    | -      |
| SURPHUR DIOXIDE<br>[JIS C 0090]  |                             | EXPOSED AT 40±2°C, RELATIVE HUMIDITY<br>80±5%, 25±5 PPM FOR 96h.   |       |                            |                    | ② NO EVIDENCE OF CORROSION WHICH AFFECTS<br>TO OPERATION OF CONNECTOR   |  |  |   | 0    | -      |
| HYDROGEN SULPHIDE<br>[JIS C 0092]  |                             | EXPOSED AT 40±2°C, RELATIVE HUMIDITY<br>80±5%, 10 TO 15 PPM FOR 96h.   |       |                            |                    |   |  |  |   | 0    | -      |
| RESISTANCE TO SOLDERING HEAT   |                             | 1) REFLOW SOLDERING :<br>PEAK TMP. 250°C MAX.<br>REFLOW TMP. 230°C MIN. FOR 60 sec.<br>2) SOLDERING IRONS :<br>TMP. 350±5°C FOR 5±1 sec. |       |                            |                    | ① NO DEFORMATION OF CASE OF EXCESSIVE<br>LOOSENESS OF THE TERMINALS<br>② NO DAMAGE OF ELECTRICAL PERFORMANCE        |  |  |   | 0    | -      |
| SOLDERABILITY  |                             | SOLDER DIPPING TEMPERATURE 245±5°C,<br>FOR IMMERSION DURATION, 3±0.3 sec.  |       |                            |                    | A NEW UNIFORM COATING OF SOLDER<br>SHALL COVER A MINIMUM OF 95% OF<br>THE SURFACR BEING IMMERSERD.                  |  |  |   | 0    | -      |
| <p>△ (note 1)<br/>FOLLOW THE SPECIFICATIONS OF FPC/FFC IF IT'S ALLOWABLE MAXIMUM OPERATING TEMPERATURE IS BELOW 105°C</p> <p>△ (note 2)<br/>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> <p>△ (note 3)<br/>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.</p> |                             |  |       |                            |                    |   |  |  |   |      |        |
| <b>REMARKS</b>   |                             |  |       |                            | <b>DRAWN</b>       | <b>DESIGNED</b>   | <b>CHECKED</b>                           | <b>APPROVED</b>                        | <b>RELEASED</b>   |      |        |
|  |                             |  |       |                            | B.J KIM            | B.J KIM   | D.H CHO                                  | H.C SONG                               |  |      |        |
| UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402.   |                             |  |       |                            | 18.03.02           | 18.03.02  | 18.03.02                                 | 18.03.02                               |   |      |        |
| <b>NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST</b>   |                             |  |       |                            |                    |   |  |  |   |      |        |
| HIROSE KOREA CO.,LTD.  |                             |  |       | <b>SPECIFICATION SHEET</b> |                    |   |  | PART NO.<br><b>TF38-**S-0.5SV(830)</b> |   |      |        |
| CODE NO.(OLD)  |                             | DRAWING NO.  |       |                            | CODE NO.           |   |  |  |   |      | 1<br>1 |
| CL   |                             | ELC4-632306  |       |                            | CL 6537-****-*-830 |   |  |  |   |      |        |