

|                                                                                                                                                         | COUNT                       | DESCRIPTION OF REVISIONS                                                                            | BY                          | CHKD | DATE                           |                                                                                                                    | COUNT    | DESCRIPTION OF REVISIONS             | BY                                                                                    | CHKD | DATE |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------|------|--------------------------------|--------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------|---------------------------------------------------------------------------------------|------|------|
| △                                                                                                                                                       |                             |                                                                                                     |                             |      |                                | △                                                                                                                  |          |                                      |                                                                                       |      |      |
| △                                                                                                                                                       |                             |                                                                                                     |                             |      |                                | △                                                                                                                  |          |                                      |                                                                                       |      |      |
| APPLICABLE STANDARD                                                                                                                                     |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| RATING                                                                                                                                                  | OPERATING TEMPERATURE RANGE |                                                                                                     | -40℃ ~ +85℃                 |      |                                | STORAGE TEMPERATURE RANGE                                                                                          |          | -10℃ ~ +50℃ (Packed Condition)       |                                                                                       |      |      |
|                                                                                                                                                         | VOLTAGE                     |                                                                                                     | 50V [AC(rms) / DC]          |      |                                | OPERATING OR STORAGE HUMIDITY RANGE                                                                                |          | RELATIVE HUMIDITY 90%MAX (NOT DEWED) |                                                                                       |      |      |
|                                                                                                                                                         | CURRENT                     |                                                                                                     | 0.5A [AC(rms) / DC] (note1) |      |                                | APPLICABLE CABLE                                                                                                   |          | FFC(t=0.3±0.03mm)                    |                                                                                       |      |      |
| SPECIFICATIONS                                                                                                                                          |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| ITEM                                                                                                                                                    |                             | TEST METHOD                                                                                         |                             |      |                                | REQUIREMENTS                                                                                                       |          |                                      | QT                                                                                    | AT   |      |
| CONSTRUCTION                                                                                                                                            |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| GENERAL EXAMINATION                                                                                                                                     |                             | VISUALLY AND BY MEASURING INSTRUMENT                                                                |                             |      |                                | ACCORDING TO DRAWING                                                                                               |          |                                      | 0                                                                                     | 0    |      |
| MARKING                                                                                                                                                 |                             | CONFIRMED VISUALLY                                                                                  |                             |      |                                |                                                                                                                    |          |                                      | 0                                                                                     | 0    |      |
| ELECTRICAL CHARACTERISTICS                                                                                                                              |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| CONTACT RESISTANCE                                                                                                                                      |                             | MATE APPLICABLE FPC/FFC AND APPLY A CURRENT OF 10mA, 20mv DC                                        |                             |      |                                | 50 mΩ MAX.<br>INCLUDING FPC/FFC BULK RESISTANCE(L=8mm)                                                             |          |                                      | 0                                                                                     | 0    |      |
| INSULATION RESISTANCE                                                                                                                                   |                             | MATE APPLICABLE FPC/FFC AND APPLY A VOLTAGE OF DC 500V                                              |                             |      |                                | 500 MΩ MIN.                                                                                                        |          |                                      | 0                                                                                     | 0    |      |
| VOLTAGE PROOF                                                                                                                                           |                             | MATE APPLICABLE FPC/FFC AND APPLY A VOLTAGE OF AC 250V FOR 1 min.                                   |                             |      |                                | NO FLASHOVER OR BREAKDOWN.                                                                                         |          |                                      | 0                                                                                     | 0    |      |
| MECHANICAL CHARACTERISTICS                                                                                                                              |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| FFC RETENSION FORCE                                                                                                                                     |                             | MEASURE BY APPLICABLE FPC/FFC(t=0.3) AT INITIAL CONDITION                                           |                             |      |                                | ①VERTICAL DIRECTION : 9.8N MIN.<br>②HORIZONTAL DIRECTION : 19.6N MIN.                                              |          |                                      | 0                                                                                     | -    |      |
| MECHANICAL OPERATION                                                                                                                                    |                             | 20 TIMES INSERTIONS AND EXTRATIONS                                                                  |                             |      |                                | ①CONTACT RESISTANCE: 50mΩ MAX<br>②NO DAMAGE, CRACK AND LOOSENESS OF PARTS                                          |          |                                      | 0                                                                                     | -    |      |
| VIBRATION                                                                                                                                               |                             | FREQUENCY 10 ~ 55 Hz, TOTAL AMPLITUDE 1.5 mm AT 2h, IN 3 DIRECTIONS                                 |                             |      |                                | ①NO ELECTRICAL DISCONTINUITY OF 1μs.<br>②CONTACT RESISTANCE : 50mΩ MAX                                             |          |                                      | 0                                                                                     | -    |      |
| SHOCK                                                                                                                                                   |                             | 490m/s <sup>2</sup> DIRECTION OF PULSE 11ms AT 3 TIMES IN 3 DIRECTIONS.                             |                             |      |                                | ③NO DAMAGE, CRACK AND LOOSENESS OF PARTS                                                                           |          |                                      | 0                                                                                     | -    |      |
|                                                                                                                                                         |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                           |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| DAMP HEAT(STEADY STATE)                                                                                                                                 |                             | EXPOSED AT 40±2℃, 90~95 %, 96Hr.                                                                    |                             |      |                                | ①CONTACT RESISTANCE: 50 mΩ MAX.<br>②INSULATION RESISTANCE: 100 MΩ MIN.<br>③NO DAMAGE, CRACK OR LOOSENESS OF PARTS. |          |                                      | 0                                                                                     | -    |      |
| RAPID CHAGE OF TEMPERATURE                                                                                                                              |                             | TEMPERATURE : -40±2 → 15~35 → +85±2 → 15~35 ℃<br>TIME : 30 → 2~3 → 30 → 2~3 min.<br>UNDER 5 CYCLES. |                             |      |                                |                                                                                                                    |          |                                      | 0                                                                                     | -    |      |
| DAMP HEAT, CYCLE                                                                                                                                        |                             | TEMPERATURE -10→+65<br>HUMIDITY : 90~95%<br>10 CYCLE(240Hr)                                         |                             |      |                                |                                                                                                                    |          |                                      | 0                                                                                     | -    |      |
| DRY HEAT                                                                                                                                                |                             | EXPOSED AT 85±2℃, 96Hr                                                                              |                             |      |                                | ①CONTACT RESISTANCE : 50mΩ MAX                                                                                     |          |                                      | 0                                                                                     | -    |      |
| COLD                                                                                                                                                    |                             | EXPOSED AT -40±2℃, 96Hr                                                                             |                             |      |                                | ②NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                           |          |                                      | 0                                                                                     | -    |      |
| CORROSION SALT SPRAY                                                                                                                                    |                             | EXPOSED AT 35±2℃, 5±1% SALT WATER SPRAY FOR 48Hr                                                    |                             |      |                                | ①CONTACT RESISTANCE 50mΩ MAX<br>②NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                           |          |                                      | 0                                                                                     | -    |      |
| HYDROGEN SULPHIDE                                                                                                                                       |                             | EXPOSED IN 3 PPM FOR 96Hr.<br>(TEST STANDARD : JEIDA-38)                                            |                             |      |                                | ③NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.                                                 |          |                                      | 0                                                                                     | -    |      |
| RESISTANCE TO SOLDERING HEAT                                                                                                                            |                             | REFLOW SOLDERING:<br>PEAK TMP. : 260℃ MAX. 10s MIN.<br>REFLOW TMP. : 217℃ FOR 90~120s               |                             |      |                                | ①NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.<br>②NO DAMAGE OF ELECTRICAL PERFORMANCE           |          |                                      | 0                                                                                     | -    |      |
| SOLDER ABILITY                                                                                                                                          |                             | SOLDERED AT SOLDER TEMPERATURE, 245±3℃ FOR IMMERSION DURATION, 3±0.3 SEC                            |                             |      |                                | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95% OF THE SURFACE BEING IMMERSED.                        |          |                                      | 0                                                                                     | -    |      |
| (note 1)<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. |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| REMARKS                                                                                                                                                 | CONDITIONS FOR TESTING      |                                                                                                     |                             |      | DRAWN                          | DESIGNED                                                                                                           | CHECKED  | APPROVED                             | RELEASED                                                                              |      |      |
|                                                                                                                                                         |                             |                                                                                                     |                             |      | M.G.KANG                       | M.G.KANG                                                                                                           | D.H.CHO  | H.C.SONG                             |  |      |      |
|                                                                                                                                                         |                             |                                                                                                     |                             |      | 14.09.16                       | 14.09.16                                                                                                           | 14.09.16 | 14.09.16                             |                                                                                       |      |      |
| UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402.                                                                                                        |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST                                                                                       |                             |                                                                                                     |                             |      |                                |                                                                                                                    |          |                                      |                                                                                       |      |      |
| HIROSE KOREA CO.,LTD.                                                                                                                                   |                             | SPECIFICATION SHEET                                                                                 |                             |      |                                | PART NO.<br>TF49-50S-0.5SH(800)                                                                                    |          |                                      |                                                                                       |      |      |
| CODE NO.(OLD)<br>CL                                                                                                                                     |                             | DRAWING NO.<br>ELC4-631681-80                                                                       |                             |      | CODE NO.<br>CL 6545-0001-5-800 |                                                                                                                    |          | 1/1                                  |                                                                                       |      |      |