| APPLICABLE STANDARD | | | | |
|---|---|---|---|---|
| RATING | OPERATING TEMPERATURE RANGE | ⚠1 -40 °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 (***note 1***) | APPLICABLE CABLE | t=0.3±0.05mm, GOLD PLATING |

# SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| **CONSTRUCTION** | | | | |
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | × | × |
| MARKING | CONFIRMED VISUALLY. | | × | × |
| **ELECTRIC CHARACTERISTICS** | | | | |
| CONTACT RESISTANCE | 1mA(DC OR 1000Hz). | 50 mΩ MAX.<br>INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | × | × |
| INSULATION RESISTANCE | 100 V DC. | 500 MΩ MIN. | × | × |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | × | × |
| **MECHANICAL CHARACTERISTICS** | | | | |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| 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.<br>② CONTACT RESISTANCE: 50 mΩ MAX.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| SHOCK | 981 m/s$^2$ , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS. | | × | — |
| FPC RETENTION FORCE | MEASURED BY APPLICABLE FPC. (CONNECTOR,FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm ) | DIRECTION OF INSERTION: 0.4×n N MIN ( n : NUMBER OF CONTACTS). | × | — |
| **ENVIRONMENTAL CHARACTERISTICS** | | | | |
| ⚠1 RAPID CHANGE OF TEMPERATURE | TEMPERATURE -40→+15 TO +35→+105→+15 TO +35°C TIME 30→ 2 TO 3 → 30→ 2 TO 3 min. UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50 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: 50 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. | × | — |
| ⚠1 DRY HEAT | EXPOSED AT 105±2 °C, 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| COLD | EXPOSED AT -40±3°C, 96 h. | | × | — |
| CORROSION SALT MIST | EXPOSED AT 35±2 °C 5% SALT WATER SPRAY FOR 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — |
| SULPHUR DIOXIDE [JIS C 60068-2-42] | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 25±5 ppm FOR 96 h. | | × | — |
| HYDROGEN SULPHIDE [JIS C 60068-2-43] | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 10 TO 15 ppm FOR 96 h. | | × | — |

| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|---|---|---|---|---|---|
| ⚠1 | 4 | DIS-F-00000491 | SG. MASAKI | HS. SAKAMOTO | 15. 07. 25 |

REMARK

⚠1
Unless otherwise specified, refer to IEC 60512.

| | | |
|---|---|---|
| APPROVED | MO. ISHIDA | 12. 11. 08 |
| CHECKED | HS. SAKAMOTO | 12. 11. 08 |
| DESIGNED | SG. MASAKI | 12. 11. 08 |
| DRAWN | SS. NABAE | 12. 11. 08 |

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO. ELC4-347552-01

| | | | | |
|---|---|---|---|---|
| HRS | SPECIFICATION SHEET | PART NO. | FH52E-**S-0.5SH | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL580 ⚠1 | 1/2 |

FORM HD0011-2-1

# SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING (TO BE 2 TIMES MAX.)<br>PEAK TMP. 250 ℃ MAX<br>REFLOW TMP. OVER 230 ℃ WITHIN 60 sec.<br>PRE-HEATING. 150 TO 200℃<br>90 TO 120 sec.<br>2)SOLDERING IRONS : 350 ± 10 ℃,<br>FOR 5± 1 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | — |
| SOLDERABILITY | 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. | × | — |

(***note 1***)

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.