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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| APPLICABLE STANDARD | | | | |
|--|--|---|-------------------------------------|--|
| RATING | OPERATING TEMPERATURE RANGE | -40 °C TO 85 °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) | 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. | X | X |
| MARKING | CONFIRMED VISUALLY. | | X | X |
| ELECTRIC CHARACTERISTICS | | | | |
| CONTACT RESISTANCE | AC 20 mV MAX (1 KHz) , 1 mA . | 50 mΩ MAX. INCLUDING FPC, FFC BULK RESISTANCE (L=8mm) | X | X |
| INSULATION RESISTANCE | 100 V DC. | 500 MΩ MIN. | X | X |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | X | X |
| MECHANICAL CHARACTERISTICS | | | | |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| VIBRATION | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, — m/s ² FOR 10 CYCLES IN 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 mΩ MAX. | X | — |
| SHOCK | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS. | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| FPC RETENSION FORCE | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.) | DIRECTION OF INSERTION: 0.4N × n MIN. (n:NUMBER OF CONTACTS) | X | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE-40→+15To+35→+85→+15To+35°C TIME 30→ 2~3 → 30→ 2~3 min UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40±2°C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | | X | — |
| 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. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| DRY HEAT | EXPOSED AT 85±2 °C, 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. | X | — |
| COLD | EXPOSED AT -40±3°C, 96 h. | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| CORROSION SALT MIST | EXPOSED AT 35±2°C, 5 % SALT WATER SPRAY FOR 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | X | — |
| SURPHUR DIOXIDE [JIS C 0090] | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5%, 25±5 PPM FOR 96 h. | | X | — |
| HYDROGEN SULPHIDE [JIS C 0092] | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5%, 10 ~ 15 PPM FOR 96 h. | | X | — |
| COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
| 0 | | | | |
| REMARK | | APPROVED | RI. TAKAYASU | 08.06.02 |
| | | CHECKED | HS. SAKAMOTO | 08.05.30 |
| | | DESIGNED | RT. IKEDA | 08.05.24 |
| | | DRAWN | RT. IKEDA | 08.05.24 |
| Unless otherwise specified, refer to JIS C 5402. | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | ELC4-155140-01 | |
| HRS | SPECIFICATION SHEET | PART NO. | FH28E-50S-0.5SH(05) | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL586-1815-7-05 | △ 1/2 |

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SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|------------------------------|---|--|----|----|
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING (MAX 2 CYCLES) PEAK TMP. 250 °C MAX . REFLOW TMP. 230 °C MIN FOR 60 sec. PRE-HEAT 150~200°C FOR 90~120 sec. 2) SOLDERING IRONS : TMP. 350±10°C FOR 5±1 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | x | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235 ±5 °C FOR IMMERSION DURATION, 2±0.5 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | x | — |

(note)

WHEN THE SAME VALUE OF CURRENT ARE APPLID TO ALL CONTACTS AT THE SAME TIME IN ONCE,
 SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

| | | | | | |
|--|---------------------------|-------------|----------|-----------------------|-------|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | | ELC4-155140-01 | |
| HRS | SPECIFICATION SHEET | | PART NO. | FH28E-50S-0. 5SH (05) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO | CL586-1815-7-05 | △ 2/2 |