



**THE DATASHEET OF
FH23-45S-0.3SHW(05)**



Jul.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
 In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|--|-----------------------------|---|------|------|--|---|------------|------------------------------------|----------|
| △ | 2 | RE - F - 08696 | S.K | R-7 | 03.03.12 | △ | | | |
| △ | | | | | △ | | | | |
| APPLICABLE STANDARD | | | | | | | | | |
| RATING | OPERATING TEMPERATURE RANGE | -55°C TO 85°C | | | STORAGE TEMPERATURE RANGE | -10°C TO 50°C (PACKED CONDITION) | | | |
| | VOLTAGE | 30V AC | | | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90 % MAX. (NOT DEWED) | | | |
| | CURRENT | 0.3A | | | APPLICABLE CABLE | t=0.20±0.03mm, 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 | | AC 20mV MAX., 1mA. | | | 100mΩ MAX. INCLUDING FPC BULK RESISTANCE (L=12mm, THICKNESS OF COPPER FOIL: 35 μm) | | | × | × |
| INSULATION RESISTANCE | | 100V DC. | | | 50 MΩ MIN. | | | × | × |
| VOLTAGE PROOF | | 90V AC FOR 1 min. | | | NO FLASHOVER OR BREAKDOWN. | | | × | × |
| MECHANICAL CHARACTERISTICS | | | | | | | | | |
| FPC INSERTION FORCE △ | | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.) | | | 0.15N/PIN MAX. (CONNECTOR, FPC AT INITIAL CONDITION) | | | × | — |
| FPC RETENSION FORCE △ | | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.) | | | 0.30N/PIN MIN. (CONNECTOR, FPC AT INITIAL CONDITION) | | | × | — |
| MECHANICAL OPERATION | | 10 TIMES INSERTIONS AND EXTRACTIONS. | | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | × | — |
| VIBRATION | | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75mm, — m/s ² FOR 10 CYCLES IN 3 DIRECTIONS. | | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 mΩ MAX. | | | × | — |
| SHOCK | | 981m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS. | | | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | × | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | | | | |
| DAMP HEAT (STEADY STATE) | | EXPOSED AT 40 °C, RELATIVE HUMIDITY 90 TO 95%, 96h. | | | ① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | × | — |
| DAMP HEAT, CYCLIC | | EXPOSED AT -10 TO +65°C, RELATIVE HUMIDITY 90 TO 96%, 10 CYCLES, TOTAL 240 h. | | | ① CONTACT RESISTANCE: 100 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. | | | × | — |
| REMARKS | | | | | | | | | |
| | | | | | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | | | | | S.OKAMURA | S.OKAMURA | R.TAKAYASU | M.ISHIDA | |
| | | | | | 02.11.11 | 02.11.11 | 02.11.11 | 02.11.12 | |
| Unless otherwise specified, refer to JIS C 5402. | | | | | | | | | |
| Note QT:Qualification Test AT:Assurance Test ×:Applicable Test | | | | | | | | | |
| HS HIROSE ELECTRIC CO., LTD. | | | | | SPECIFICATION SHEET | | | PART NO. FH23 - *S - 0.3SHW(05) | |
| CODE NO.(OLD) | | DRAWING NO. | | | CODE NO. | | | | |
| CL | | ELC4 - 153547 - 01 | | | CL 586 | | | | |
| | | | | | 1 2 | | | | |

Jul.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
 In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|-----------------------------------|--|--|----|----|
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55→+15 TO +35→+85→+15 TO +35°C TIME 30→ 2~3 → 30→ 2~3 min. UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DRY HEAT | EXPOSED AT 85 °C, 96 h. | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| COLD | EXPOSED AT -55°C, 96 h. | | × | — |
| CORROSION SALT MIST | EXPOSED AT 35°C, 5% SALT WATER SPRAY FOR 96h. | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — |
| HYDROGEN SULPHIDE [JIS C 0092] | EXPOSED AT 40°C, RELATIVE HUMIDITY 80%, 10 ~ 15 PPM FOR 96h. | | × | — |
| SURPHUR DIOXIDE [JIS C 0090] | EXPOSED AT 40 °C , RELATIVE HUMIDITY 80%, 25 PPM FOR 96 h. | | × | — |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING : PEAK TMP. 250°C MAX. REFLOW TMP. 230°C MIN FOR 60 sec. 2) SOLDERING IRONS : TMP. 350±5°C FOR 5 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235°C FOR IMMERSION DURATION, 2 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | — |

| | | | | | |
|---------|-----------|-----------|------------|----------|----------|
| REMARKS | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
| | S.OKAMURA | S.OKAMURA | R.TAKAYASU | M.ISHIDA | |
| | 02.11.11 | 02.11.11 | 02.11.11 | 02.11.12 | |

Unless otherwise specified, refer to JIS C 5402.

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



| | | |
|--------------------------------------|-----------------------------------|------------------------------------|
| HRS HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET | PART NO. FH23 - *S - 0.3SHW(05) |
| CODE NO.(OLD) CL | DRAWING NO. ELC4 - 153547 - 01 | CODE NO. CL 586 |

2

| |
|----|
| TO |
| NC |
| |
| |

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View FH23-45S-0.3SHW\(05\) on WIN SOURCE](#)
-  [Hirose Electric Co Ltd Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management