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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 | -55 °C to 85 °C   | Storage temperature range           | -10°C TO 50°C(Packed condition)       |
|                     | Voltage                     | 30V AC / DC   | Operating or storage humidity range | Relative humidity 90 % MAX(Not dewed) |
|                     | Current                     |  0.3 A | Applicable cable                    | t=0.3±0.03mm, Gold plating            |

### SPECIFICATIONS


| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|------|-------------|--------------|----|----|
|------|-------------|--------------|----|----|

| CONSTRUCTION        |                                       |                                   |   |   |
|---------------------|---------------------------------------|-----------------------------------|---|---|
| General examination | Visually and by measuring instrument. | According to drawing.<br>(note 1) | × | × |
| Marking             | Confirmed visually.                   |                                   | × | × |

| ELECTRICAL CHARACTERISTICS |                     |  |   |   |
|----------------------------|---------------------|--|---|---|
| Voltage proof              | 90 V AC for 1 min.  | No flashover or breakdown.                           | × | — |
| Insulation resistance      | 100 V DC.           | 50 MΩ MIN.   | × | — |
| Contact resistance         | AC 20 mV MAX, 1 mA. | 100 mΩ MAX.<br>Including FPC bulk resistance (L=8mm) | × | — |

| MECHANICAL CHARACTERISTICS |   |   |   |   |
|----------------------------|---|---|---|---|
| Vibration                  | Frequency 10 to 55 Hz, half amplitude<br>0.75 mm, for 10 cycles in 3 axial directions.      | ① No electrical discontinuity of 1 μs.<br>② Contact resistance: 100 mΩ MAX.<br>③ No damage, crack and looseness of parts. | × | — |
| Shock                      | 981 m/s <sup>2</sup> , duration of pulse 6 ms<br>at 3 times in 3 both axial directions.     |   | × | — |
| Mechanical operation       | 10 times insertions and extractions.  | ① Contact resistance: 100 mΩ MAX.<br>② No damage, crack and looseness of parts.   | × | — |
| FPC insertion force        | Measured by applicable FPC<br>(Thickness of FPC shall be t=0.30mm<br>at initial condition.) | Insertion force : Direction of insertion<br>2.6+0.14 × n N MAX (note 2)<br>(n: Number of contacts)                        | × | — |
| FPC retention force        | Measured by applicable FPC<br>(Thickness of FPC shall be t=0.30mm<br>at initial condition.) | Retention force : Direction of extraction<br>5+0.07 × n N MIN (note3)<br>(n: Number of contacts)                          | × | — |


| ENVIRONMENTAL CHARACTERISTICS |   |   |   |   |
|-------------------------------|---|---|---|---|
| Corrosion salt mist           | Exposed at 35±2 °C, 5 % salt water spray<br>for 96 h.   | ① Contact resistance: 100 mΩ MAX.   | × | — |
| Rapid change of temperature   | Temperature -55→+15T <sub>0</sub> +35→+85→+15T <sub>0</sub> +35°C<br>Time 30→ 2 to 3 → 30 → 2 to 3 min<br>Under 5 cycles. | ① Contact resistance: 100 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,<br>Relative humidity 90 to 95 %, 96 h.  |   | × | — |
| Damp heat,cyclic              | Exposed at -10 to +65 °C,<br>Relative humidity 90 to 96 %, 10 cycles, TOTAL 240 h.  | ① Contact resistance: 100 mΩ MAX.<br>② Insulation resistance: 1 MΩ MIN.<br>(At high humidity)<br>③ Insulation resistance: 50 MΩ MIN.<br>(At dry)<br>④ No damage, crack and looseness of parts | × | — |
|                               |   |   |   |   |

| COUNT   | DESCRIPTION OF REVISIONS | DESIGNED     | CHECKED      | DATE     |
|---|--------------------------|--------------|--------------|----------|
|  3 | DIS-F-00010250           | SE. YOKOYAMA | HY. YAMAZAKI | 20210713 |

|        |          |               |          |
|--------|----------|---------------|----------|
| REMARK | APPROVED | NF. MIYAZAKI  | 20170823 |
|        | CHECKED  | YN. TAKASHITA | 20170823 |
|        | DESIGNED | HH. MURAKAMI  | 20170823 |
|        | DRAWN    | HH. MURAKAMI  | 20170823 |

Unless otherwise specified, refer to IEC 60512.

|  |             |                  |
|--|-------------|------------------|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | DRAWING NO. | ELC-368163-99-00 |
|--|-------------|------------------|

|            |                           |          |                        |   |
|------------|---------------------------|----------|------------------------|---|
| <b>HRS</b> | SPECIFICATION SHEET       | PART NO. | FH62-**S-0. 25SHW (99) |   |
|            | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL580                  |  1/2 |

| SPECIFICATIONS                          |  |  |    |    |
|---|--|--|----|----|
| ITEM                                    | TEST METHOD  | REQUIREMENTS   | QT | AT |
| Dry heat                                | Exposed at 85±2°C, 96 h.   | ① Contact resistance: 100 mΩ MAX.  | ×  | —  |
| Cold                                    | Exposed at -55±3°C, 96 h.  | ② No damage, crack and looseness of parts  | ×  | —  |
| Sulphur dioxide<br>[JIS C 60068-2-42]   | Exposed at 40±2 °C,<br>Relative humidity 80±5%<br>25±5 ppm for 96 h.   | ① Contact resistance: 100 mΩ MAX.  | ×  | —  |
| Hydrogen sulphide<br>[JIS C 60068-2-43] | Exposed at 40±2 °C,<br>Relative humidity 80±5% ,<br>10 to 15 ppm for 96 h.   |  | ×  | —  |
| Solderability                           | Soldered at solder temperature,<br>245±3°C for immersion duration,3±0.3 sec.   | A new uniform coating of solder shall cover a minimum of 95 % of the surface being immersed. | ×  | —  |
| Resistance to soldering heat            | 1) Reflow soldering :<br>Peak TMP. 250 °C MAX .<br>Reflow TMP. over 220 °C 60 to 90 sec.<br>Number of reflow : 2 times<br>2) Soldering irons :<br>TMP. 350±10 °C for 5±1 sec . | No deformation of case of excessive looseness of the terminals. ( <i>note 4</i> )            | ×  | —  |


**(note 1)**

This product features top-contact point.  
 "One Action Lock" completes FPC lock just by inserting the FPC.  
 Do not operate the locking-lever when inserting the FPC.

**(note 2)**



Do not insert the FPC to this product at an angle.

**(note 3)**

 There's a case which FPC retention force doesn't fulfill the value, because FPC specification affects the result of FPC retention force.  
 Stabilize the FPC to PCB or something fixed, if pull-up or pull-down force is expected to be applied to the FPC.

**(note 4)**

Blisters which may be generated on the housing do not affect product performance.

|   |                           |             |          |                        |   |
|---|---------------------------|-------------|----------|------------------------|---|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                      |                           | DRAWING NO. |          | ELC-368163-99-00       |   |
|  | SPECIFICATION SHEET       |             | PART NO. | FH62-**S-0. 25SHW (99) |   |
|   | HIROSE ELECTRIC CO., LTD. |             | CODE NO  | CL580                  |  2/2 |