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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 +125 °C        |  | STORAGE TEMPERATURE RANGE  | -10 °C TO +60°C <sup>(1)</sup>           |                  |
|  | VOLTAGE  | △ 60 V AC/DC             |  | STORAGE HUMIDITY RANGE   | RELATIVE HUMIDITY 85% MAX<br>(NOT DEWED) |                  |
|  | CURRENT  | 2 A                      |  |  |  |                  |
| SPECIFICATIONS   |  |                          |  |  |  |                  |
| ITEM   | TEST METHOD  |                          |  | REQUIREMENTS   | QT                                       | AT               |
| <b>CONSTRUCTION</b>  |  |                          |  |  |  |                  |
| GENERAL EXAMINATION  | VISUALLY AND BY MEASURING INSTRUMENT.  |                          |  | ACCORDING TO DRAWING.  | x  | x                |
| MARKING  | CONFIRMED VISUALLY.  |                          |  |  | x  | x                |
| <b>ELECTRIC CHARACTERISTICS</b>  |  |                          |  |  |  |                  |
| CONTACT RESISTANCE   | 1A DC.   |                          |  | 10 mΩ MAX .  | x  | -                |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD  | 10 mV AC MAX, 0.1 mA(DC OR 1000Hz)   |                          |  | 10 mΩ MAX .  | x  | -                |
| INSULATION RESISTANCE  | 500 V DC.  |                          |  | 100 MΩ MIN.  | x  | -                |
| VOLTAGE PROOF  | 1000 V AC FOR 1 min.   |                          |  | NO FLASHOVER OR BREAKDOWN.   | x  | -                |
| <b>MECHANICAL CHARACTERISTICS</b>  |  |                          |  |  |  |                  |
| MECHANICAL OPERATION   | 30 TIMES INSERTIONS AND EXTRACTIONS.   |                          |  | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x  | -                |
| VIBRATION  | FREQUENCY 20 TO 200Hz (88m/s <sup>2</sup> )<br>SWEEP TIME 3min.(ROUND TRIP)<br>AT 3h FOR 3 DIRECTIONS. |                          |  | ① NO ELECTRICAL DISCONTINUITY OF 7ΩMIN ,<br>1μs MIN.<br>② CONTACT RESISTANCE: 20 mΩ MAX.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x  | -                |
| SHOCK  | 981m/s <sup>2</sup> DURATION OF PULSE 6ms AT 3 TIMES<br>FOR 6 DIRECTIONS.                              |                          |  | ① NO ELECTRICAL DISCONTINUITY OF 7ΩMIN ,<br>1μs MIN.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                     | x  | -                |
| LOCK STRENGTH  | MEASURE BREAK STRENGTH OF THE LOCK BY<br>PULLING THE CONNECTOR IN THE MATING<br>DIRECTION.             |                          |  | ① 100N MIN.  | x  | -                |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>   |  |                          |  |  |  |                  |
| DAMP HEAT (STEADY STATE)   | EXPOSED AT 60 °C, 90 ~ 95 %, 96 h.   |                          |  | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② INSULATION RESISTANCE:100 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                  | x  | -                |
| RAPID CHANGE OF TEMPERATURE  | TEMPERATURE- 40 →ROOM TEMP →125°C→<br>ROOM TEMP<br>TIME 30 → 5 → 30 → 5 min<br>UNDER 1000 CYCLES.      |                          |  | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x  | -                |
| DRY HEAT   | EXPOSED AT 140°C, 120 h.   |                          |  | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x  | -                |
| COLD   | EXPOSED AT -40°C , 120 h.  |                          |  | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x  | -                |
| RESISTANCE TO SO <sub>2</sub> GAS  | EXPOSED IN 25 PPM AT 75% MIN FOR 96h.  |                          |  | ① CONTACT RESISTANCE: 20 mΩ MAX.   | x  | -                |
| RESISTANCE TO SOLDERING HEAT   | REFLOW TEMP. OVER 260°C , 10sec.<br>PREHEAT 180°C MAX , 120sec.  |                          |  | NO PLATING PEELING OF THE TERMINALS,<br>MELTINGS OF HOUSINGS.  | x  | -                |
| SOLDERABILITY  | SOLDERED AT SPECIFIED TEMPERATURE<br>PROFILE.  |                          |  | A NEW UNIFORM COATING OF SOLDER<br>SHALL COVER A MINIMUM OF 95 % OF<br>THE SURFACE BEING IMMERSSED.                                    | x  | -                |
|  | COUNT  | DESCRIPTION OF REVISIONS |  | DESIGNED   | CHECKED                                  | DATE             |
| △  | 1  | DIS-T-00006023           |  | YH. MAMADA   | HH. TSUKUMO                              | 20200407         |
| REMARK   |  |                          |  | APPROVED   | HK. UMEHARA                              | 20171016         |
| (NOTE1) "STORAGE" means a long-term storage state for the unused product before assembly to PCB. |  |                          |  | CHECKED  | HK. UMEHARA                              | 20171016         |
|  |  |                          |  | DESIGNED   | TY. ISHIGURO                             | 20171016         |
|  |  |                          |  | DRAWN  | MN. SATOH                                | 20171016         |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |  |                          |  | DRAWING NO.  |  | ELC-373534-00-00 |
| <b>HRS</b>   | SPECIFICATION SHEET  |                          |  | PART NO.   | ZE05H-20DP-2H                            |                  |
|  | HIROSE ELECTRIC CO., LTD.  |                          |  | CODE NO.   | CL752-2115-0-00                          | △                |