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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 125 °C (NOTES 1) | STORAGE TEMPERATURE RANGE | -10 °C TO 60 °C (NOTES 2) | |
| | VOLTAGE | 50 V AC | | | |
| | CURRENT | 0.3 A | | | |
| 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 | 20 mV AC OR LESS 1 kHz, 1 mA. | 50 mΩ MAX. | X | — | |
| INSULATION RESISTANCE | 100 V DC | 500 MΩ MAX | X | — | |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | X | — | |
| MECHANICAL CHARACTERISTICS | | | | | |
| MECHANICAL OPERATION | 50 TIMES INSERTIONS AND WITHDRAWALS. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — | |
| VIBRATION | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — | |
| SHOCK | 490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — | |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -65 →15 TO 35 →125 →15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — | |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — | |
| SULPHUR DIOXIDE | EXPOSED IN 25 PPM RH 75 % FOR 96 h. (TEST STANDARD: JEIDA-38) | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION. | X | — | |
| HEAT RESISTANCE OF SOLDERING | 【RECOMMENDED TEMPERATURE PROFILE】 《SOLDERING AREA》 MAX250°C, 220°C FOR 60 SECONDS MAX. 《PREHEATING AREA》 150 TO 180°C 90~120 SECONDS. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION. 【RECOMMENDED MANUAL SOLDELING CONDITION】 SOLDERING IRON TEMPERATURE 350°C SOLDERING TIME : WITHIN 3 SECONDS. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | X | — | |
| REMARKS | | | | | |
| NOTES1: INCLUDING THE TEMPERATURE RISE BY CURRENT. NOTES2: STORAGE IS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS. APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY. | | | | | |
| UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402. | | | | | |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
| | | | | | |
| | | | APPROVED | WR. FUKUCHI | 20200720 |
| | | | CHECKED | TS. MIYAZAKI | 20200720 |
| | | | DESIGNED | KT. KUSAKA | 20200717 |
| | | | DRAWN | RN. IIDA | 20200717 |
| Note | QT: Qualification Test AT: Assurance Test X: Applicable Test | | DRAWING NO. | ELC-389285-51-01 | |
| | SPECIFICATION SHEET | | PART NO. | DF12NC (3. 0) -10DP-0. 5V (51) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL537-0396-0-51 | 1/1 |