

| APPLICABLE STANDARD                                                                                                                                                         |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------|-----------------------------------------------|
| RATING                                                                                                                                                                      | OPERATING TEMPERATURE RANGE | -55 °C TO 85 °C                                                                                                                                                        |             | STORAGE TEMPERATURE RANGE                                                                    | -40 °C TO 60 °C <sup>(1)</sup>                |
|                                                                                                                                                                             | VOLTAGE                     | 50 V AC                                                                                                                                                                |             | OPERATING HUMIDITY RANGE                                                                     | RELATIVE HUMIDITY 95 % RH MAX. <sup>(2)</sup> |
|                                                                                                                                                                             | STORAGE HUMIDITY RANGE      | 40 % TO 70 % <sup>(1)</sup>                                                                                                                                            |             |                                                                                              |                                               |
|                                                                                                                                                                             | CURRENT                     | REFER TO FX10-168pin DERATING CURVES FROM TEST REPORTS TR570E-20588                                                                                                    |             |                                                                                              |                                               |
| SPECIFICATIONS                                                                                                                                                              |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| ITEM                                                                                                                                                                        | TEST METHOD                 |                                                                                                                                                                        |             | REQUIREMENTS                                                                                 | QT AT                                         |
| CONSTRUCTION                                                                                                                                                                |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| GENERAL EXAMINATION                                                                                                                                                         |                             | VISUAL AND WITH MEASURING INSTRUMENT.                                                                                                                                  |             | ACCORDING TO DRAWING.                                                                        | x x                                           |
| MARKING                                                                                                                                                                     |                             | CONFIRM VISUALLY.                                                                                                                                                      |             |                                                                                              | x x                                           |
| ELECTRIC CHARACTERISTICS                                                                                                                                                    |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| CONTACT RESISTANCE<br>[EIA-364-23]                                                                                                                                          |                             | 100 mA and 20 mv OPEN CIRCUIT MAX.                                                                                                                                     |             | 60 mΩ MAX.                                                                                   | x —                                           |
| INSULATION RESISTANCE<br>[EIA-364-21]                                                                                                                                       |                             | 100 V DC.                                                                                                                                                              |             | 100 MΩ MIN.                                                                                  | x —                                           |
| VOLTAGE PROOF<br>[EIA-364-20]                                                                                                                                               |                             | 150 V AC FOR 1 MINUTE.                                                                                                                                                 |             | NO FLASHOVER OR BREAKDOWN.                                                                   | x x                                           |
| MECHANICAL CHARACTERISTICS                                                                                                                                                  |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| INSERTION AND WITHDRAWAL FORCES<br>[EIA-364-13]                                                                                                                             |                             | MEASURED BY APPLICABLE CONNECTORS.                                                                                                                                     |             | INSERTION FORCE: 100.8 N MAX.<br>WITHDRAWAL FORCE: 4.2 N MIN.                                | x —                                           |
| MECHANICAL OPERATION<br>[EIA-364-09]                                                                                                                                        |                             | 50 TIMES INSERTIONS AND EXTRACTION.                                                                                                                                    |             | ① CONTACT RESISTANCE CHANGE:<br>10 mΩ OR LESS<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | x —                                           |
| RANDOM VIBRATION<br>[EIA-364-28]                                                                                                                                            |                             | FREQUENCY: 20 TO 500 Hz<br>POWER SPECTRAL DENSITY: 0.02 G <sup>2</sup> /Hz<br>OVERALL rms G: 3.1 Grms<br>FOR 15 MINUTES IN THREE DIRECTIONS.                           |             | 1) NO ELECTRICAL DISCONTINUITY OF 1μs OR MORE.<br>2) NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | x —                                           |
| SHOCK<br>[EIA-364-27]                                                                                                                                                       |                             | 490 m/s <sup>2</sup> , DURATION OF PULSE: 11 ms<br>3 EACH DIRECTION, 3 AXIS.                                                                                           |             |                                                                                              | x —                                           |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                               |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| THERMAL SHOCK<br>[EIA-364-32]                                                                                                                                               |                             | TEMPERATURE: -55 → 15 ~ 35 → 85 → 15 ~ 35 °C<br>TIME: 30 → 5 → 30 → 5 min.<br>UNDER 10 CYCLES                                                                          |             | 1) CONTACT RESISTANCE CHANGE:<br>10 mΩ OR LESS<br>2) NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | x —                                           |
| CYCLIC TEMPERATURE AND HUMIDITY<br>[EIA-364-31]                                                                                                                             |                             | @ 25 °C, 80% RH: 60 MIN DWELL TIME<br>30 MIN RAMP TIME<br>@ 65 °C, 50% RH: 60 MIN DWELL TIME<br>UNDER 24 CYCLES.                                                       |             |                                                                                              | x —                                           |
| DRY HEAT<br>[EIA-364-17]                                                                                                                                                    |                             | EXPOSED AT 105 °C, 1000 hr.                                                                                                                                            |             |                                                                                              | x —                                           |
| MIXED FLOWING GAS<br>[EIA-364-65]                                                                                                                                           |                             | EXPOSED AT 30 °C, 70%<br>Cl <sub>2</sub> : 10 ppb, NO <sub>2</sub> : 200 ppb, H <sub>2</sub> S : 10 ppb,<br>SO <sub>2</sub> : 100 ppb<br>UNMATED 7 DAYS, MATED 7 DAYS. |             | 1) CONTACT RESISTANCE CHANGE:<br>10 mΩ OR LESS<br>2) NO HEAVY CORROSION.                     | x —                                           |
| REFLOW TEMPERATURE CONDITION<br>[IPC / JEDEC J-STD-020C]                                                                                                                    |                             | REFLOW PEAK TEMPERATURE : 260 °C AT CONNETOR SURFACE.                                                                                                                  |             | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINAL.                               | x —                                           |
|                                                                                                                                                                             |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| COUNT                                                                                                                                                                       | DESCRIPTION OF REVISIONS    |                                                                                                                                                                        | DESIGNED    | CHECKED                                                                                      | DATE                                          |
| △                                                                                                                                                                           |                             |                                                                                                                                                                        |             |                                                                                              |                                               |
| REMARK <sup>(1)</sup> THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED.<br><sup>(2)</sup> NO DEW CONDENSATION IS PERMITTED. |                             |                                                                                                                                                                        | APPROVED    | HS. OKAWA                                                                                    | 11. 03. 24                                    |
|                                                                                                                                                                             |                             |                                                                                                                                                                        | CHECKED     | KI. HIROKAWA                                                                                 | 11. 03. 24                                    |
|                                                                                                                                                                             |                             |                                                                                                                                                                        | DESIGNED    | DK. AIMOTO                                                                                   | 11. 03. 23                                    |
|                                                                                                                                                                             |                             |                                                                                                                                                                        | DRAWN       | DK. AIMOTO                                                                                   | 11. 03. 23                                    |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                              |                             |                                                                                                                                                                        | DRAWING NO. |                                                                                              | ELC4-330884-02                                |
| HRS                                                                                                                                                                         | SPECIFICATION SHEET         |                                                                                                                                                                        | PART NO.    | FX10B-168P-SV4 (83)                                                                          |                                               |
|                                                                                                                                                                             | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                                                        | CODE NO.    | CL570-0307-5-83                                                                              |                                               |
|                                                                                                                                                                             |                             |                                                                                                                                                                        |             | △                                                                                            | 1/1                                           |