

| 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-20587 |  |   |            |
| SPECIFICATIONS  |  |   |  |   |            |
| ITEM  | TEST METHOD  |   | REQUIREMENTS   | QT  | AT         |
| <b>CONSTRUCTION</b>   |  |   |  |   |            |
| GENERAL EXAMINATION   | VISUAL AND WITH MEASURING INSTRUMENT.  |   | ACCORDING TO DRAWING.  | x   | x          |
| MARKING   | CONFIRM VISUALLY.  |   |  | x   | x          |
| <b>ELECTRIC CHARACTERISTICS</b>   |  |   |  |   |            |
| 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          |
| <b>MECHANICAL CHARACTERISTICS</b>   |  |   |  |   |            |
| 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   | -          |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>  |  |   |  |   |            |
| 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.  |   |  | 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. 01. 24 |
|   |  |   | CHECKED  | HT. YAMAGUCHI                                 | 11. 01. 21 |
|   |  |   | DESIGNED   | AH. EDASHIGE                                  | 11. 01. 21 |
|   |  |   | DRAWN  | AH. EDASHIGE                                  | 11. 01. 21 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test  |  |   | DRAWING NO.  | ELC4-151955-23                                |            |
|   | SPECIFICATION SHEET  |   | PART NO.   | FX10A-168P-SV (83)                            |            |
|   | HIROSE ELECTRIC CO., LTD.  |   | CODE NO.   | CL570-0044-8-83                               | 1/1        |