

| APPLICABLE STANDARD                                                                                  |                             |                                                                                                                              |                           |                                                                                               |                  |
|------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------|------------------|
|                                                                                                      | Operating Temperature Range | -55 °C to +105 °C <sup>(1)</sup>                                                                                             | Storage Temperature Range | -10 °C to +60 °C <sup>(2)</sup>                                                               |                  |
| Rating                                                                                               | Voltage                     | 100 V AC                                                                                                                     | Storage Humidity Range    | Relative humidity 85 % MAX<br>(Not dewed)                                                     |                  |
|                                                                                                      | Current                     | 0.5 A                                                                                                                        | Operating Humidity Range  |                                                                                               |                  |
| SPECIFICATIONS                                                                                       |                             |                                                                                                                              |                           |                                                                                               |                  |
| ITEM                                                                                                 |                             | TEST METHOD                                                                                                                  |                           | REQUIREMENTS                                                                                  |                  |
| CONSTRUCTION                                                                                         |                             |                                                                                                                              |                           |                                                                                               |                  |
| General Examination                                                                                  |                             | Visually and by measuring instrument.                                                                                        |                           | According to drawing.                                                                         |                  |
| Marking                                                                                              |                             | Confirmed visually.                                                                                                          |                           |                                                                                               |                  |
| ELECTRIC CHARACTERISTICS                                                                             |                             |                                                                                                                              |                           |                                                                                               |                  |
| Contact Resistance                                                                                   |                             | 100 mA(DC or 1000 Hz)                                                                                                        |                           | 30 mΩ MAX <sup>(3)</sup>                                                                      |                  |
| Insulation Resistance                                                                                |                             | 250 V DC                                                                                                                     |                           | 1000 MΩ MIN                                                                                   |                  |
| Voltage Proof                                                                                        |                             | 300 V AC for 1 min.                                                                                                          |                           | No flashover or breakdown.                                                                    |                  |
| MECHANICAL CHARACTERISTICS                                                                           |                             |                                                                                                                              |                           |                                                                                               |                  |
| Insertion and Withdrawal Forces                                                                      |                             | Measured by applicable connector.                                                                                            |                           | Insertion Force: 53.3 N MAX<br>Withdrawal Force: 5.3 N MIN                                    |                  |
| Mechanical Operation                                                                                 |                             | 100 times insertions and extractions.                                                                                        |                           | 1)Contact Resistance : 40 mΩ MAX <sup>(3)</sup><br>2)No damage, crack and looseness of parts. |                  |
| Vibration                                                                                            |                             | Frequency 10 to 55 to 10 Hz, approx 5 min.<br>Single amplitude: 0.75 mm, 10 cycles<br>for 3 axial directions.                |                           | 1)No electrical discontinuity of 1 μs.<br>2)No damage, crack and looseness of parts.          |                  |
| Shock                                                                                                |                             | 490 m/s <sup>2</sup> , duration of pulse 11 ms<br>at 3 times for 3 both axial directions.                                    |                           |                                                                                               |                  |
| ENVIRONMENTAL CHARACTERISTICS                                                                        |                             |                                                                                                                              |                           |                                                                                               |                  |
| Damp Heat (Steady state)                                                                             |                             | Exposed at 40 ± 2 °C, 90 to 95 %, 96 h.                                                                                      |                           | 1)Contact Resistance : 40 mΩ MAX <sup>(3)</sup><br>2)Insulation Resistance: 1000 MΩ MIN       |                  |
| Rapid Change of Temperature                                                                          |                             | Temperature: -55 → +85 °C<br>Time : 30 → 30 min.<br>Under 5 cycles.<br>(Relocation time to chamber: within 2 to 3 MIN)       |                           | 3)No damage, crack and looseness of parts.                                                    |                  |
| Dry Heat                                                                                             |                             | Exposed at +105 °C, 96 h                                                                                                     |                           | 1)Contact Resistance : 40 mΩ MAX <sup>(3)</sup><br>2)No damage, crack and looseness of parts. |                  |
| Cold                                                                                                 |                             | Exposed at -55 °C, 96 h                                                                                                      |                           |                                                                                               |                  |
| Resistance to Soldering Heat                                                                         |                             | 1)Reflow soldering:<br>Peak TMP: 260 °C MAX<br>Reflow TMP: 220 °C MIN for 60 sec<br>2)Soldering irons: 360 °C MAX for 5 sec. |                           | No deformation of case or excessive looseness of the terminal.                                |                  |
| Solderability                                                                                        |                             | Soldered at solder temperature<br>240 ± 3 °C for immersion duration, 3 sec.                                                  |                           | A new uniform coating of solder shall cover a minimum of 95 % of the surface being immersed.  |                  |
|                                                                                                      |                             |                                                                                                                              |                           |                                                                                               |                  |
|                                                                                                      | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                     | DESIGNED                  | CHECKED                                                                                       | DATE             |
| △                                                                                                    |                             |                                                                                                                              |                           |                                                                                               |                  |
| REMARKS                                                                                              |                             |                                                                                                                              |                           | APPROVED                                                                                      | NH. NAKATA       |
| (1)Include temperature rise caused by current-carrying.                                              |                             |                                                                                                                              |                           | CHECKED                                                                                       | HT. YAMAGUCHI    |
| (2)"Storage" means a long-term storage state for the unpacked part before assembly to pcb.           |                             |                                                                                                                              |                           | DESIGNED                                                                                      | MT. ITANO        |
| (3)Contact resistance of relay board is not included. It becomes contact resistance for 1 connector. |                             |                                                                                                                              |                           | DRAWN                                                                                         | MT. ITANO        |
| Unless otherwise specified, refer to IEC 60512.                                                      |                             |                                                                                                                              |                           |                                                                                               |                  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                       |                             |                                                                                                                              | DRAWING NO.               |                                                                                               | ELC-382477-00-00 |
| SPECIFICATION SHEET                                                                                  |                             |                                                                                                                              | PART NO.                  |                                                                                               |                  |
| HIROSE ELECTRIC CO., LTD.                                                                            |                             |                                                                                                                              | CODE NO.                  |                                                                                               |                  |
|                                                                                                      |                             |                                                                                                                              | FX27-80S-0.8SV            |                                                                                               |                  |
|                                                                                                      |                             |                                                                                                                              | CL577-1004-0-00           |                                                                                               |                  |
|                                                                                                      |                             |                                                                                                                              | △ 1/1                     |                                                                                               |                  |