




| Applicable standard | | | | | | |
|--|--|---|--|-------------------------|---|------------|
| Rating | Operating temperature range | -55°C to + 105°C(Note 1) | Storage temperature range | -10°C to + 60°C(Note 3) | | |
| | Operating humidity range | 40% to + 80%(Note 2) | Storage humidity range | 40% to + 70%(Note 3) | | |
| | Voltage | 250V AC/DC | Applicable connector | DF3-*S-2C | | |
| Current | | AWG 22 to 24 : 3A AWG 26 : 2A AWG 28 : 1A | UL • CSA rating | Voltage | 30V AC/DC | |
| | | | | Current | AWG 24 : 3A AWG 26 : 2A AWG 28 : 1A (Note 4) | |
| 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 Millivolt Level Method | 20mV MAX, 1mA (DC or 1000Hz). | | 30mΩ MAX. | | X | — |
| Insulation resistance | 500V DC. | | 1000MΩ MIN. | | X | — |
| Voltage proof | 650V AC for 1 min. | | No flashover or breakdown. | | X | — |
| Mechanical characteristics | | | | | | |
| Mechanical operation | 30 times insertions and extractions. | | ① Contact resistance: 30mΩ MAX. ② No damage, crack or 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 1μs. ② No damage, crack or 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 1μs. ② No damage, crack or looseness of parts. | | X | — |
| Environmental characteristics | | | | | | |
| Rapid change of temperature | Temperature -55°C→ +85°C Time 30min→ 30min Under 5 Cycles. (The transferring time of the tank is 2 to 3 MIN) (After leaving the room temperature for 1 to 2h.) | | ① Contact resistance: 30mΩ MAX. ② Insulation resistance: 1000MΩ MIN. ③ No damage, crack or looseness of parts. | | X | — |
| Damp heat (Steady state) | Exposed at 40 ± 2 °c, 90 to 95 %, 96 h. | | ① Contact resistance: 30mΩ MAX. ② Insulation resistance: 500MΩ MIN. ③ No damage, crack or looseness of parts. | | X | — |
| Resistance to Soldering heat | 1) Reflow soldering Number of reflow cycles : 2 cycles MAX. Duration above 230°C, 60 sec. MAX. Peak temperature: 250°C 10 sec. MAX. Pre-heat temperature :150 to 180°C Pre-heat time : 90 to 120 sec. 2) Manual soldering Soldering iron temperature :300°C, Soldering time : 3sec. No strength on contact. | | No deformation of case of excessive looseness of the terminals. | | X | — |
| Solderability | Soldering temperature :230 °C Soldering time :3s. | | A new uniform coating of solder shall cover minimum of 95 % of the surface being immersed. | | X | — |
| Remarks | | | | | | |
| Note 1: Include the temperature rising by current. | | | | | | |
| Note 2: No condensing | | | | | | |
| Note 3: Apply to the condition of long term storage for unused products before mounted on PCB. After mounted on PCB board, operating temperature and humidity range is applied for interim storage during transportation. | | | | | | |
| Note 4: Apply to crimping contact type. | | | | | | |
| | Count | Description of revisions | Designed | Checked | Date | |
|  | | | | | | |
| Unless otherwise specified, refer to IEC 60512. | | | | Approved | HS. OKAWA | 18. 02. 16 |
| | | | | Checked | TS. FUKUSHIMA | 18. 02. 16 |
| | | | | Designed | TS. KUMAZAWA | 18. 02. 16 |
| | | | | Drawn | MK. INOUE | 18. 02. 16 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | Drawing no. | | ELC-369406-24-00 | |
|  | Specification sheet | | Part no. | DF3E-*P-2H (24) | | |
| | Hirose electric co., ltd. | | Code no. | CL543 |  | 1/1 |