| APPLICA | BLE STAN | DARD | | | | | | | | |
|---|--|---|--|-----------------------------------|---|--|---|--|----------------------------------|----------------------------|
| OPERATING TEMPERATUR | | E RANGE | -40 °C TO 10 | 5 °C | TEMPI | RAGE PERATURE RANGE -40 °C TO 105 °C (MOUN | | TEDON | IPCB) | |
| RATING | VOLTAGE CURRENT | | 50 V AC / DC HUMI | | OPERATING HUMIDITY RA | | E | RELATIVE HUMIDITY 90 % MAX | /AX(NOT DEWED) | |
| | | | | | APPLI | CABLE (| CABLE | t=0.3±0.05mm, GOLD | PLATII | NG |
| | | | SPEC | IFICAT | TION | NS | | | | |
| | ГЕМ | | TEST METHOD | | | | REQ | UIREMENTS | QT | АТ |
| | RUCTION | MELIALI | V AND BY MEASURING IN | ICTDI IMENI | ı . I | ۸۵۵۵۱ | DINC TO D | DAMINO | 1 | 1 |
| | | | ISUALLY AND BY MEASURING INSTRUMENT. ONFIRMED VISUALLY. | | | ACCORDING TO DRAWING. | | | × | × |
| | ICAL CHAI | | | | | | | | ^ | ^ |
| CONTACT RESISTANCE | | | | | | 50 mΩ MAX. | | | × | × |
| | | | | | | INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | | | | |
| NSULATION RESISTANC | | 100 V DC. | | | | 500 Mg | 2 MIN. | | × | × |
| VOLTAGE P | | 150 V AC | FOR 1 min. | | | NO FLASHOVER OR BREAKDOWN. | | | × | × |
| MECHAN | NICAL CHA | RACTE | RISTICS | | I | | | | | 1 |
| | | 20 TIMES INSERTIONS AND EXTRACTIONS. | | | | CONTACT RESISTANCE: 50 mΩ MAX. NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | × | _ |
| | | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 AXIAL DIRECTIONS. | | | | 1 NO ELECTRICAL DISCONTINUITY OF 1 µs. | | | × | _ |
| SHOCK 9 | | | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS. | | | ② CONTACT RESISTANCE: 50 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | × | - |
| ` | | (CONNEC | MEASURED BY APPLICABLE FPC. ONNECTOR, FPC AT INITIAL CONDITION. HICKNESS OF FPC SHALL BE t=0.30mm) | | | DIRECTION OF INSERTION: 0.4×n N MIN (n: NUMBER OF CONTACTS). | | | × | - |
| ENVIROI | NMENTAL | | CTERISTICS | 7.30mm) | I | | | | | 1 |
| RAPID CHANGE OF TEMP | | TEMPER | ATURE-40→+15 _{TO} +35→+1 | | | _ | | | × | _ |
| | | UNDER 5 CYCLES. | | | INSULATION RESISTANCE: 50 MΩ MIN. NO DAMAGE, CRACK AND LOOSENESS OF PARTS. CONTACT RESISTANCE: 50 mΩ MAX. INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) NO DAMAGE, CRACK AND LOOSENESS OF PARTS | | | | | |
| DAMP HEAT (STEADY STATE) | | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | | | | | | × | - | |
| DAMP HEAT, CYCLIC | | | | | | | | × | _ | |
| | | | | | | | | RACK AND LOOSENESS | | |
| DRY HEAT | | EXPOSE | D AT 105±2 °C, 96 h. | | | OF | PARTS. | ISTANCE: $50 \text{ m}\Omega$ MAX. | × | _ |
| | | EXPOSE | ., | | | OF (1) COI(2) NO | PARTS. NTACT RES DAMAGE, C | | × | _ _ _ |
| COLD | N SALT MIST | EXPOSE | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT V | | RAY | OF OF OF COL | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES | ISTANCE: $50 \text{ m}\Omega$ MAX. RACK AND LOOSENESS ISTANCE: $50 \text{ m}\Omega$ MAX. | × | _ _ _ |
| COLD CORROSIO | DIOXIDE | EXPOSE FOR 96 h | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT V | VATER SPI | RAY | OF O | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE | ISTANCE: $50 \text{ m}\Omega$ MAX. RACK AND LOOSENESS | × | |
| SULPHUR D [JIS HYDROGEN | DIOXIDE C 60068-2-42 | EXPOSE FOR 96 h EXPOSE 80±5%, 2 | D AT -40±3°C, 96 h. D AT 35±2 °C 5% SALT W . D AT 40±2 °C , RELATIVE | VATER SPP | RAY | OF O | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O | ISTANCE: $50~\text{m}\Omega$ MAX. RACK AND LOOSENESS ISTANCE: $50~\text{m}\Omega$ MAX. OF CORROSION WHICH | × × × | |
| COLD CORROSIO SULPHUR D [JIS HYDROGEN | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 80±5%, 1 | D AT -40±3°C, 96 h. D AT 35±2 °C 5% SALT W b. D AT 40±2 °C , RELATIVE 25±5 ppm FOR 96 h. D AT 40±2 °C , RELATIVE | VATER SPI HUMIDITY HUMIDITY | RAY | OF ① COI ② NO OF ① COI ② NO AFF COI | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O | ISTANCE: $50~\text{m}\Omega$ MAX. RACK AND LOOSENESS ISTANCE: $50~\text{m}\Omega$ MAX. OF CORROSION WHICH | × × × × × | |
| COLD CORROSION SULPHUR D [JIS HYDROGEN [JIS COUN | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 80±5%, 1 | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT W 1. D AT 40±2°C, RELATIVE 25±5 ppm FOR 96 h. D AT 40±2°C, RELATIVE 10 TO 15 ppm FOR 96 h. | VATER SPI HUMIDITY HUMIDITY | RAY | OF ① COI ② NO OF ① COI ② NO AFF COI | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O NNECTOR. | ISTANCE: 50 mΩ MAX. RACK AND LOOSENESS ISTANCE: 50 mΩ MAX. OF CORROSION WHICH PERATION OF CHECKED | × × × × × | |
| COLD CORROSION SULPHUR E [JIS HYDROGEN [JIS COUN & REMARK | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 IT DE | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 180±5%, 2 | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT W D AT 40±2°C, RELATIVE I 25±5 ppm FOR 96 h. D AT 40±2°C, RELATIVE I 10 TO 15 ppm FOR 96 h. DN OF REVISIONS | VATER SPE HUMIDITY HUMIDITY | RAY | OF COI | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O NNECTOR. | ISTANCE: 50 mΩ MAX. RACK AND LOOSENESS ISTANCE: 50 mΩ MAX. OF CORROSION WHICH PERATION OF CHECKED NF. MIYAZAKI | × × × × × DA | 3. 24 |
| COLD CORROSION SULPHUR E [JIS HYDROGEN [JIS COUN & REMARK | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 NT DE | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 180±5%, 2 | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT W 1. D AT 40±2°C, RELATIVE 25±5 ppm FOR 96 h. D AT 40±2°C, RELATIVE 10 TO 15 ppm FOR 96 h. | VATER SPE HUMIDITY HUMIDITY | RAY | OF COI | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O NNECTOR. APPROVEE CHECKED | ISTANCE: 50 mΩ MAX. RACK AND LOOSENESS ISTANCE: 50 mΩ MAX. OF CORROSION WHICH PERATION OF CHECKED NF. MIYAZAKI HS. SAKAMOTO | × × × × × 15.00 |)3. 24)3. 24 |
| COLD CORROSION SULPHUR D [JIS HYDROGEN [JIS COUN A REMARK STORAGE : -10 TO | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 IT DE TEMPERATI | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 80±5%, 7 | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT W D AT 40±2°C, RELATIVE 25±5 ppm FOR 96 h. D AT 40±2°C, RELATIVE 10 TO 15 ppm FOR 96 h. ON OF REVISIONS | VATER SPE HUMIDITY HUMIDITY | RAY | OF COI | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O NNECTOR. APPROVED CHECKED DESIGNED | ISTANCE: 50 mΩ MAX. RACK AND LOOSENESS ISTANCE: 50 mΩ MAX. OF CORROSION WHICH PERATION OF CHECKED D NF. MIYAZAKI HS. SAKAMOTO HK. KINOUCHI | X X X X DA 15. 0 15. 0 |)3. 24)3. 24)3. 24 |
| COLD CORROSION SULPHUR D [JIS HYDROGEN [JIS COUN COUN COUN COUN COUN COUN COUN COU | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 IT DE TEMPERATI +50 °C | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 80±5%, 7 SCRIPTIO | DAT -40±3°C, 96 h. DAT 35±2°C 5% SALT W 1. DAT 40±2°C, RELATIVE 1 25±5 ppm FOR 96 h. DAT 40±2°C, RELATIVE 1 10 TO 15 ppm FOR 96 h. DN OF REVISIONS IGE IN THE EMBOSSED Fer to JIS C 5402. | VATER SPE HUMIDITY HUMIDITY | RAY DESIGI | OF ① COI ② NO OF ① COI ② NO AFF COI | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O NNECTOR. APPROVED CHECKED DESIGNED | STANCE: 50 mΩ MAX. RACK AND LOOSENESS ISTANCE: 50 mΩ MAX. OF CORROSION WHICH PERATION OF CHECKED D NF. MIYAZAKI HS. SAKAMOTO HK. KINOUCHI HK. KINOUCHI | X X X X DA 15. 0 15. 0 15. 0 | 03. 24 03. 24 03. 24 |
| COLD CORROSION SULPHUR D [JIS HYDROGEN [JIS COUN COUN COUN COUN COUN COUN COUN COU | DIOXIDE C 60068-2-42 N SULPHIDE C 60068-2-43 IT DE TEMPERATI +50 °C nerwise spec | EXPOSE FOR 96 h EXPOSE 80±5%, 2 EXPOSE 80±5%, 7 ESCRIPTIO | D AT -40±3°C, 96 h. D AT 35±2°C 5% SALT W D AT 40±2°C, RELATIVE 25±5 ppm FOR 96 h. D AT 40±2°C, RELATIVE 10 TO 15 ppm FOR 96 h. ON OF REVISIONS | HUMIDITY HUMIDITY C CARRIE | RAY DESIGI | OF ① COI ② NO OF ① COI NED | PARTS. NTACT RES DAMAGE, C PARTS. NTACT RES EVIDENCE FECTS TO O NNECTOR. APPROVED CHECKED DESIGNED DRAWN G NO. | ISTANCE: 50 mΩ MAX. RACK AND LOOSENESS ISTANCE: 50 mΩ MAX. OF CORROSION WHICH PERATION OF CHECKED D NF. MIYAZAKI HS. SAKAMOTO HK. KINOUCHI | X X X X X 15. 0 15. 0 15. 0 0-00 | 03. 24 03. 24 03. 24 |

| SPECIFICATIONS | | | | | | | |
|---------------------------------|--|--|----|----|--|--|--|
| ITEM | TEST METHOD | REQUIREMENTS | QT | АТ | | | |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING (TO BE 2 TIMES MAX.) PEAK TMP. 250 °C MAX REFLOW TMP. OVER 230 °C WITHIN 60 sec. PRE-HEATING. 150 TO 200 °C 90 TO 120 sec. 2) SOLDERING IRONS : 350 ± 10 °C, FOR 5± 1 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | _ | | | |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 245±3 °C FOR IMMERSION DURATION, 3±0.3 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | _ | | | |

(note 1)

WHEN THE SAME VALUE OF CURRENT ARE APPLIED TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

| Note QT:C | Qualification Test AT:Assurance Test X:Applicable Test | DRAWING NO. | | ELC-363488-00-00 | | |
|-----------|--|-------------|--------------------|------------------|------|-----|
| HS | RS SPECIFICATION SHEET | | FH52E-* (*) SA-1SH | | SH . | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO | | CL580 | ◬ | 2/2 |