


APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	-55 °C TO 85 °C	STORAGE TEMPERATURE RANGE	-10 °C TO 50 °C (PACKED CONDITION)
	VOLTAGE	30V AC / DC	OPERATING OR STORAGE HUMIDITY RANGE	RELATIVE HUMIDITY 90 % MAX (NOT DEWED)
	CURRENT	0.20 A	APPLICABLE CABLE	t=0.12±0.02mm, GOLD PLATING
SPECIFICATIONS				
ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION				
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×
MARKING	CONFIRMED VISUALLY.	(note 1,2)	×	×
ELECTRIC CHARACTERISTICS				
VOLTAGE PROOF	90 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	×	×
INSULATION RESISTANCE	100 V DC.	50 MΩ MIN.	×	×
CONTACT RESISTANCE	AC 20 mV MAX (1KHz) , 1 mA .	300 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm)	×	×
MECHANICAL CHARACTERISTICS				
VIBRATION	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	981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.	② CONTACT RESISTANCE: 300 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
MECHANICAL OPERATION	10TIMES INSERTIONS AND EXTRACTATIONS.	① CONTACT RESISTANCE: 300 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
FPC RETENTION FORCE	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.12mm AT INITIAL CONDITION.)	DIRECTION OF INSERTION : 5.6 N MIN (note 3)	×	—
ENVIRONMENTAL CHARACTERISTICS				
CORROSION SALT MIST	EXPOSED AT 35±2 °C, 5 % SALT WATER SPRAY FOR 96 h.	① CONTACT RESISTANCE: 300 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—
RAPID CHANGE OF TEMPERATURE	TEMPERATURE-55→+15TO+35→+85→+15TO+35°C TIME 30→ 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 300 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ 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	EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h.	① CONTACT RESISTANCE: 300 mΩ MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△				
REMARK		APPROVED	MO. ISHIDA	13. 04. 12
		CHECKED	ST. WADA	13. 04. 12
		DESIGNED	HY. YAMAZAKI	13. 04. 12
Unless otherwise specified, refer to JIS C 5402.		DRAWN	HY. YAMAZAKI	13. 04. 12
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC4-336359-00	
HRS	SPECIFICATION SHEET	PART NO.	FH53-41S-0. 2SHW	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580-3401-7-00	△ 1/2

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
DRY HEAT	EXPOSED AT 85±2 °C, 96 h.	① CONTACT RESISTANCE: 300 mΩ MAX.	x	—	
COLD	EXPOSED AT -55±3°C, 96 h.	② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—	
SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5% 25±5 ppm FOR 96 h.	① CONTACT RESISTANCE: 300 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—	
HYDROGEN SULPHIDE [JIS C 60068-2-43]	EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5% , 10 TO 15 ppm FOR 96 h.	③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	x	—	
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.	x	—	
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING : PEAK TMP. 250 °C MAX . REFLOW TMP. OVER 230°C WITHIN 60 sec. 2) SOLDERING IRONS : TMP. 350±10 °C FOR 5±1 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. (<i>note 4</i>)	x	—	
<p>(note1) THIS IS A TOP CONTACT POINT CONNECTOR WITH BACK FLIP LOCK SYSTEM.</p> <p>(note2) DO NOT CLOSE THE ACTUATOR BEFORE INSERTING FPC EVEN AFTER THE CONNECTOR IS MOUNTED ONTO A PCB. CLOSING THE ACTUATOR WITHOUT FPC COULD MAKE THE CONTACT GAP SMALLER, WHICH INCREASES THE FPC INSERTION FORCE.</p> <p>(note3) STABILIZE THE FPC TO PCB OR SOMETHING FIXED, IF PULL-UP OR PULL-DOWN FORCE IS EXPECTED TO BE APPLIED TO THE FPC.</p> <p>(note4) BLISTERS WHICH MAY BE GENERATED ON THE HOUSING DO NOT AFFECT PRODUCT PERFORMANCE.</p>					
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