

APPLICABLE STANDARD					
RATING	OPERATING TEMPERATURE RANGE	△ -40 °C TO 105 °C	STORAGE TEMPERATURE RANGE	-10 °C TO 50 °C (PACKED CONDITION)	
	VOLTAGE	50 V AC / DC	OPERATING OR STORAGE HUMIDITY RANGE	RELATIVE HUMIDITY 90 % MAX (NOT DEWED)	
	CURRENT	0.5 A (note 1)	APPLICABLE CABLE	t=0.3±0.05mm, GOLD PLATING	
SPECIFICATIONS					
ITEM		TEST METHOD	REQUIREMENTS	QT	AT
CONSTRUCTION					
GENERAL EXAMINATION		VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×
MARKING		CONFIRMED VISUALLY.		×	×
ELECTRIC CHARACTERISTICS					
CONTACT RESISTANCE		1mA(DC OR 1000Hz).	50 mΩ MAX. INCLUDING FPC,FPC BULK RESISTANCE (L=8mm)	×	×
INSULATION RESISTANCE		100 V DC.	500 MΩ MIN.	×	×
VOLTAGE PROOF		150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	×	×
MECHANICAL CHARACTERISTICS					
MECHANICAL OPERATION		20 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
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. ② CONTACT RESISTANCE: 50 mΩ MAX.	×	—
SHOCK		981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
FPC RETENTION FORCE		MEASURED BY APPLICABLE FPC. (CONNECTOR,FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm)	DIRECTION OF INSERTION: 0.4×n N MIN (n : NUMBER OF CONTACTS).	×	—
ENVIRONMENTAL CHARACTERISTICS					
△	RAPID CHANGE OF TEMPERATURE	TEMPERATURE-40→+15TO+35→+105→+15TO+35°C TIME 30→ 2 TO 3 → 30→ 2 TO 3 min. UNDER 5 CYCLES.	① CONTACT RESISTANCE: 50 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: 50 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.	×	—
△	DRY HEAT	EXPOSED AT 105±2 °C, 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX.	×	—
	COLD	EXPOSED AT -40±3°C, 96 h.	② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
	CORROSION SALT MIST	EXPOSED AT 35±2 °C 5% SALT WATER SPRAY FOR 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—
	SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 25±5 ppm FOR 96 h.		×	—
	HYDROGEN SULPHIDE [JIS C 60068-2-43]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 10 TO 15 ppm FOR 96 h.		×	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△	4	DIS-F-00000491	SG. MASAKI	HS. SAKAMOTO	15. 07. 25
REMARK			APPROVED	MO. ISHIDA	12. 11. 08
			CHECKED	HS. SAKAMOTO	12. 11. 08
△			DESIGNED	SG. MASAKI	12. 11. 08
Unless otherwise specified, refer to IEC 60512.			DRAWN	SS. NABAE	12. 11. 08
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.	ELC4-347552-01	
HRS	SPECIFICATION SHEET		PART NO.	FH52E-**S-0. 5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	△ 1/2

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
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.	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	—	
(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.					
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	HIROSE ELECTRIC CO., LTD.	CODE NO	CL580		2/2