



APPLICABLE STANDARD						
RATING	OPERATING TEMPERATURE RANGE	-40 °C TO 85 °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.			×	×
ELECTRICAL 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: 0.4xn N MIN (n : NUMBER OF CONTACTS) (note 2)	×	—
ENVIRONMENTAL CHARACTERISTICS						
RAPID CHANGE OF TEMPERATURE		TEMPERATURE -55→+15T ₀ +35→+85→+15T ₀ +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 85±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 SPLAY FOR 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—
SULPHUR DIOXIDE [JIS C60068-2-42]		EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 25±5 ppm FOR 96 h.			×	—
HYDROGEN SULPHIDE [JIS C60068-2-43]		EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 10 TO 15 ppm FOR 96 h.			×	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
△						
REMARK				APPROVED	HS. SAKAMOTO	20181011
				CHECKED	FN. TAMURA	20181011
				DESIGNED	NM. YONEYAMA	20181011
				DRAWN	NM. YONEYAMA	20181011
Unless otherwise specified, refer to IEC 60512.						
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-385470-00-00	
HRS	SPECIFICATION SHEET		PART NO.	FH12-*(*)SA-1SH(1) (98)		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL528		
				△	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 30 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, 235±5 °C FOR IMMERSION DURATION,2±0.5 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.	X	—	
<p>(note 1)</p> <p>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.</p> <p>(note 2)</p> <p>THERE'S A CASE WHICH FPC/FFC RETENTION FORCE DOESN'T FULFILL THE VALUE, BECAUSE FPC/FFC SPECIFICATION AFFECTS THE RESULT OF FPC/FFC RETENTION FORCE.</p>					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC-385470-00-00		
	SPECIFICATION SHEET	PART NO.	FH12-* (*) SA-1SH (1) (98)		
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL528		2/2