



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	0.20A	Applicable cable	t=0.2±0.02mm, gold plating		
SPECIFICATIONS						
ITEM		TEST METHOD		REQUIREMENTS	QT	AT
CONSTRUCTION						
General examination		Visually and by measuring instrument.		According to drawing. (note 1,2)	×	×
Marking		Confirmed visually.			×	×
ELECTRICAL CHARACTERISTICS						
Voltage proof		90V AC for 1 min.		No flashover or breakdown.	×	×
Insulation resistance		100V DC.		50MΩ MIN.	×	×
Contact resistance		20mV AC MAX, 1mA.		300mΩ MAX. Including FPC 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 1μs. ② Contact resistance: 300mΩ MAX. ③ No damage, crack and loose parts.	×	—
Shock		981 m/s <sup>2</sup> , duration of pulse 6 ms at 3 times in 3 both axial directions.			×	—
Mechanical operation		10 times insertions and extractions.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts.	×	—
FPC retention force		Measured by applicable FPC. (thickness of FPC shall be t=0.20mm at initial condition)		Direction of insertion: 12.34N MIN(note 3)	×	—
ENVIRONMENTAL CHARACTERISTICS						
Corrosion salt mist		Exposed at 35±2°C, 5% salt water spray for 96h.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts. ③ No evidence of corrosion which affects connector's operation.	×	—
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: 300mΩ MAX. ② Insulation resistance: 50MΩ MIN. ③ No damage, crack and loose parts.	×	—
Damp heat (steady state)		Exposed at 40±2°C, relative humidity 90 to 95%, 96h.			×	—
Damp heat,cyclic		Exposed at -10 to +65°C, relative humidity 90 to 96%, 10 cycles, total 240h.		① Contact resistance: 300mΩ MAX. ② Insulation resistance: 1MΩ MIN. (at high humidity) ③ Insulation resistance: 50MΩ MIN. (at dry) ④ No damage, crack and loose parts.	×	—
Dry heat		Exposed at 85±2°C, 96h.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts.	×	—
Cold		Exposed at -55±3°C, 96h.			×	—
Sulphur dioxide [JIS C 60068-2-42]		Exposed at 40±2°C, relative humidity 80±5%, 25±5ppm for 96h.		① Contact resistance: 300mΩ MAX. ② No damage, crack and loose parts. ③ No evidence of corrosion which affects connector's operation.	×	—
Hydrogen sulphide [JIS C 60068-2-43]		Exposed at 40±2°C, relative humidity 80±5%, 10 to 15ppm for 96h.			×	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
△						
REMARK				APPROVED	HY. YAMAZAKI	20220907
				CHECKED	HY. YAMAZAKI	20220907
				DESIGNED	ST. YUDATE	20220907
				DRAWN	ST. YUDATE	20220907
Unless otherwise specified, refer to IEC 60512.						
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-391816-00-00	
HRS	SPECIFICATION SHEET		PART NO.	FH58SA-81S-0. 2SHW		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL0580-3825-0-00	△	1/2

SPECIFICATIONS					
ITEM	TEST METHOD		REQUIREMENTS	QT	AT
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.	×	—
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 case-deformation and loose contacts. <b>(note 4)</b>	×	—
<div><div><b>(note1)</b></div><div>This connector is back flip lock type, and top/bottom both contact points are available.</div><div><b>(note2)</b></div><div>Do not close the actuator before inserting FPC even after the connector is mounted onto a PCB.</div><div>Closing the actuator without FPC could make the contact gap smaller, which increases the FPC insertion force.</div><div><b>(note3)</b></div><div>If pull-up or pull-down force is expected to be applied to the FPC, stabilize the FPC into PCB or other fixed components.</div><div>There's a case which FPC retention force doesn't fulfill the value,</div><div>because FPC specification affects the results of FPC retention force.</div><div><b>(note4)</b></div><div>Blisters which may be generated on the housing do not affect product performance.</div></div>					
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