

APPLICABLE STANDARD					
RATING	Operating temperature range	-55 °C to 125 °C (note 1)	Storage temperature range	-10°C TO 50°C(Packed condition)	
	Voltage	50V AC / DC	Operating or storage humidity range	Relative humidity 90% MAX(Not dewed)	
	Current	0.50 A	Applicable cable (FPC/FFC)	t=0.30±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					
Voltage proof		150 V AC for 1 min.	No flashover or breakdown.	×	—
Insulation resistance		100 V DC.	500 MΩ MIN.	×	—
Contact resistance		AC 20 mV MAX , 1 mA .	Initial:50 mΩ MAX、 After each test:70 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. ② Contact resistance: 70 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.	×	—
Mechanical operation		10 times insertions and extractions.	① Contact resistance: 70 mΩ MAX ② No damage, crack and looseness of parts.	×	—
FPC/FFC retention force		Measured by applicable FPC/FFC. (Thickness of FPC/FFC shall be t=0.30mm at initial condition.)	Direction of extraction 20.5 N MIN (note2)	×	—
ENVIRONMENTAL CHARACTERISTICS					
Rapid change of temperature		Temperature-55→+15T ₀ +35→+125→+15T ₀ +35°C Time 30→ 2 to 3 → 30 → 2 to 3 min Under 1000 cycles.	① Contact resistance: 70 mΩ MAX ② Insulation resistance: 50 MΩ MIN. ③ No damage, crack and looseness of parts.	×	—
Damp heat (Steady state)		Exposed at 60±2 °C, Relative humidity 90 to 95 %, 1000 h.		×	—
Damp heat,cyclic		Exposed at -10 to +65 °C, Relative humidity 90 to 96 %, 10 cycles, TOTAL 240 h.	① Contact resistance: 70 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 125±2°C, 1000 h.	① Contact resistance: 70 mΩ MAX	×	—
Cold		Exposed at -55±3°C, 96 h.	② No damage, crack and looseness of parts	×	—
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: 70 mΩ MAX	×	—
Solderability		Soldered at solder temperature, 245±0.3°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 220 °C 60 to 90 sec. Number of reflow : 2 times 2) Soldering irons : TMP. 400±10 °C for 5±1 sec .	No deformation of case of excessive looseness of the terminals. (note 3)	×	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△					
REMARK			APPROVED	HS. HIRAHARA	20240112
			CHECKED	HS. HIRAHARA	20240112
			DESIGNED	YT. SASAKI	20240105
			DRAWN	YT. SASAKI	20240105
Unless otherwise specified, refer to IEC 60512.					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-380680-00-00
HRS	SPECIFICATION SHEET		PART NO.	FH69-30S-0. 5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL0580-5006-0-00	△ 1/2

(note 1)



The heat resistant temperature when using FFC is 105°C.
When the heat resistant temperature of FPC/FFC is less than 125°C/105°C, the heat resistant temperature of FPC/FFC is applied.

(note 2)

Stabilize the FPC/FFC to PCB or something fixed, if pull-up or pull-down force is exepected to be applied to the FPC/FFC.
There's a case witch FPC/FFC retention force doesn't fulfill the value, because FPC/FFC specification affects the result of FPC/FFC retention force.

(note 3)

Blisters which may be generated on the housing do not affect product performance.

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	SPECIFICATION SHEET		PART NO.	FH69-30S-0. 5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL580-5006-0-00	 2/2