May.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD				
RATING	Operating temperature range	-40 °C to 125 °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	Applicable cable (FPC/FFC)	t = 0.3 ± 0.05 mm, Gold plating Heat resistance : 125 ℃

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	1 mA (DC or 1000 Hz).	50 mΩ MAX. Including FPC/FFC bulk resistance (L = 8 mm)	×	×
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. ③ No damage, crack and looseness of parts.	×	—
Shock	981 m/s^2, duration of pulse 6 ms at 3 times in 3 both axial directions.		×	—
FPC/FFC retention force	Measured by applicable FPC/FFC. (Connector, FPC/FFC at initial condition. Thickness of FPC/FFC shall be t = 0.30 mm)	Direction of insertion : 0.3 × n N MIN. (n : Number of contacts) (***note 1***)	×	—
ENVIRONMENTAL CHARACTERISTICS				
Rapid change of temperature	Temperature -55→+15 to +35→+125→+15 to +35 °C Time 30→ 2 to 3 → 30 → 2 to 3 min. Under 1000 cycles.	① Contact resistance : 50 mΩ MAX. ② Insulation resistance : 50 MΩ MIN. ③ No damage, crack and looseness of parts.	×	—
High temperature and high humidity	Exposed at 85 ± 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 : 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 125 ± 2 °C, 1000 h.	① Contact resistance : 50 mΩ MAX. ② No damage, crack and looseness of parts.	×	—
Cold	Exposed at -55 ± 3 °C, 1000 h.		×	—
Corrosion salt mist	Exposed at 35 ± 2 °C, 5 % salt water spray for 96 h.	Contact resistance : 50 mΩ MAX.	×	—
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
⚠1					

REMARK

Unless otherwise specified, refer to IEC 60512.

APPROVED	HS. SAKAMOTO	17. 02. 15
CHECKED	HS. SAKAMOTO	17. 02. 15
DESIGNED	SG. MASAKI	17. 02. 14
DRAWN	SG. MASAKI	17. 02. 14

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

		DRAWING NO.	ELC-371661-99-00	
HRS	SPECIFICATION SHEET	PART NO.	FH65-**S-0. 5SH(99)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	⚠1 1/2

FORM HD0011-2-1

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 : 400 ± 10 °C, for 5 ± 1 sec.	No deformation of case of excessive looseness of the terminals.	×	—
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.	×	—

(***note 1***)

This product has flip-lock construction.

Fasten FPC/FFC on PCB or something fixed if force in vertical direction shall be predicted.

May.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.