APPLICA	BLE	STANI	DARD									
Operating temperature i			ange	-55 °C to 125 °C (note 1)		Storage temp range				-10℃ TO 50℃(Packed cor		on)
RATING	Vol	tage		50V AC/DC		humidi	ty ran	.y range		Relative humidity 90 % MAX (Not		
Current						Applica (FPC/F	able cable FFC)			t=0.30±0.05mm, Gold platin		
				SPEC	IFIC/	1OIT	NS					
	ЕМ			TEST METHOD				R	EQU	IREMENTS	QT	АТ
CONSTR			\ P = = II =	- d b			I A	Para ta das				1
General examination Marking			, ,				According to drawing.				×	×
	IC A		Confirmed visually. RACTERISTICS								×	×
Voltage prod				for 1 min.			No flas	hover or	breal	kdown.	×	Τ_
Insulation resistance			100 V DC.				500 MΩ MIN.				×	+ _
Contact resi												
Contact resistance			AC 20 mV MAX , 1 mA .				Initial:50 m Ω MAX、After each test:70 m Ω MAX (Including FPC/FFC bulk resistance L=8mm)				×	-
MECHAN	1IC			RISTICS								
Vibration			Frequency 10 to 55 Hz, half amplitude				① No electrical discontinuity of 1 μs.				×	-
Shock			0.75 mm, for 10 cycles in 3 axial directions. 981 m/s², duration of pulse 6 ms				 ② Contact resistance: 70 mΩ MAX ③ No damage, crack and looseness of parts. 				×	+-
			at 3 times in 3 both axial directions.							· 		
Mechanical operation			10 times insertions and extractions.				 Contact resistance: 70 mΩ MAX 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 25.5 N MIN (note2) 1				×	
ENVIRO	NMI	ENTAL		ACTERISTICS								
Rapid change of temperature			Temperature-55 \rightarrow +15 _{TO} +35 \rightarrow +125 \rightarrow +15 _{TO} +35 $^{\circ}$ C Time 30 \rightarrow 2 to 3 \rightarrow 30 \rightarrow 2 to 3 min				① Contact resistance: 70 mΩ MAX ② Insulation resistance: 50 MΩ MIN.				×	-
Damp heat (Steady state)			Under 1000 cycles. Exposed at 60±2 °C,				③ No damage, crack and looseness of parts.				×	+-
Damp heat,c	velie		Relative humidity 90 to 95 %, 1000 h. Exposed at -10 to +65 °c,				① Contact resistance: 70 mΩ MAX					
Damp neat, cyclic			Relative humidity 90 to 96 %, 10 cycles, TOTAL 240 h.				 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: $70 \text{ m}\Omega$ MAX				×	_
Cold			Exposed at -55±3°C, 96 h.				② No damage, crack and looseness of parts				×	_
Sulphur dioxide			Exposed at 40 ± 2 °C, Relative humidity $80\pm5\%$ 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)			×	_		
COUN	Т	DE	SCRIPTIO	ON OF REVISIONS		DESIG	GNED CHECKED		DA	ΛΤΕ		
<u>1</u>			DIS-F-00018728 YT. SA						2023	30801		
REMARK						APPROVEI CHECKED DESIGNED					30719 30719	
									YT. SASAKI			
Unless otherwise specified				ed, refer to IEC 60512.			DRAWN		YT. SASAKI	20230719		
Note QT:Qualification Test AT:Assurance Te				surance Test X:Applicable T	est	est DR		RAWING NO.		ELC-399242-00-		0
ЖS		SF	PECIFICATION SHEET			PART	NO.	NO.		FH69-50S-0. 5SH		
HIR			OSE ELECTRIC CO., LTD.			CODE NO.		CL580		Λ	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.

Note QT:Q	ualification Test AT:Assurance Test X:Applicable Test	DRAWIN	NG NO.	ELC-399242-00-00			
SH.	SPECIFICATION SHEET	PART NO.	FH69-50S-0. 5SH				
11.0	HIROSE ELECTRIC CO., LTD.	CODE NO		CL580	\triangle	2/2	