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APPLICABLE STANDARD				
RATING	Operating temperature range	-55°C to 85°C	Storage temperature range	−10℃ TO 50℃(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^2, 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

Unless otherwise specified, refer to IEC 60512.

APPROVED	HY. YAMAZAKI	20220907
CHECKED	HY. YAMAZAKI	20220907
DESIGNED	ST. YUDATE	20220907
DRAWN	ST. YUDATE	20220907

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

DRAWING NO. ELC-391816-99-00

HRS	SPECIFICATION SHEET	PART NO.	FH58SA-81S-0.2SHW(99)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL0580-3825-0-99	△ 1/2

FORM HD0011-2-1

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. (***note 4***)	×	—

(*note1*)

This connector is back flip lock type, and top/bottom both contact points are available.

(*note2*)

Do not close the actuator before inserting FPC even after the connector is mounted onto a PCB.

Closing the actuator without FPC could make the contact gap smaller, which increases the FPC insertion force.

(*note3*)

If pull-up or pull-down force is expected to be applied to the FPC, stabilize the FPC into PCB or other fixed components.

There's a case which FPC retention force doesn't fulfill the value,

because FPC specification affects the results of FPC retention force.

(*note4*)

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

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