



**THE DATASHEET OF  
FH23-27S-0.3SHW(05)**



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 In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△ 2	RE - F - 08696	S.K	R-T	03.03.12	△				
△					△				

APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	-55°C TO 85°C	STORAGE TEMPERATURE RANGE	-10°C TO 50°C (PACKED CONDITION)
	VOLTAGE	30V AC	OPERATING OR STORAGE HUMIDITY RANGE	RELATIVE HUMIDITY 90 % MAX. (NOT DEWED)
	CURRENT	0.3A	APPLICABLE CABLE	t=0.20±0.03mm, GOLD PLATING

**SPECIFICATIONS**

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
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**CONSTRUCTION**

GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×
MARKING	CONFIRMED VISUALLY.		×	×

**ELECTRIC CHARACTERISTICS**

CONTACT RESISTANCE	AC 20mV MAX., 1mA.	100mΩ MAX. INCLUDING FPC BULK RESISTANCE (L=12mm, THICKNESS OF COPPER FOIL: 35 μm)	×	×
INSULATION RESISTANCE	100V DC.	50 MΩ MIN.	×	×
VOLTAGE PROOF	90V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	×	×

**MECHANICAL CHARACTERISTICS**

FPC INSERTION FORCE △	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)	0.15N/PIN MAX. (CONNECTOR, FPC AT INITIAL CONDITION)	×	—
FPC RETENSION FORCE △	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)	0.30N/PIN MIN. (CONNECTOR, FPC AT INITIAL CONDITION)	×	—
MECHANICAL OPERATION	10 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75mm, — m/s <sup>2</sup> FOR 10 CYCLES IN 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 mΩ MAX.	×	—
SHOCK	981m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS.	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—

**ENVIRONMENTAL CHARACTERISTICS**

DAMP HEAT (STEADY STATE)	EXPOSED AT 40 °C, RELATIVE HUMIDITY 90 TO 95%, 96h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
DAMP HEAT, CYCLIC	EXPOSED AT -10 TO +65°C, RELATIVE HUMIDITY 90 TO 96%, 10 CYCLES, TOTAL 240 h.	① CONTACT RESISTANCE: 100 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.	×	—

REMARKS	DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED
	S.OKAMURA	S.OKAMURA	R.TAKAYASU	M.ISHIDA	
	02.11.11	02.11.11	02.11.11	02.11.12	

Unless otherwise specified, refer to JIS C 5402.

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

<b>HS</b> HIROSE ELECTRIC CO., LTD.	SPECIFICATION SHEET	PART NO. FH23 - *S - 0.3SHW(05)
CODE NO.(OLD) CL	DRAWING NO. ELC4 - 153547 - 01	CODE NO. CL 586

1/2

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SPECIFICATIONS				
ITEM	TEST METHOD	REQUIREMENTS	QT	AT
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→+15 TO +35→+85→+15 TO +35°C TIME 30→ 2~3 → 30→ 2~3 min. UNDER 5 CYCLES.	① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
DRY HEAT	EXPOSED AT 85 °C, 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
COLD	EXPOSED AT -55°C, 96 h.		×	—
CORROSION SALT MIST	EXPOSED AT 35°C, 5% SALT WATER SPRAY FOR 96h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—
HYDROGEN SULPHIDE [JIS C 0092]	EXPOSED AT 40°C, RELATIVE HUMIDITY 80%, 10 ~ 15 PPM FOR 96h.		×	—
SURPHUR DIOXIDE [JIS C 0090]	EXPOSED AT 40 °C , RELATIVE HUMIDITY 80%, 25 PPM FOR 96 h.		×	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING : PEAK TMP. 250°C MAX. REFLOW TMP. 230°C MIN FOR 60 sec. 2) SOLDERING IRONS : TMP. 350±5°C FOR 5 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 235°C FOR IMMERSION DURATION, 2 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	×	—

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		2

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