



**THE DATASHEET OF  
FH41-50S-0.5SH(28)**



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APPLICABLE STANDARD		⚠			
RATING	OPERATING TEMPERATURE RANGE	-40°C TO 105°C( <i>note1</i> )	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 ( <i>note2</i> )	APPLICABLE CABLE	t=0.3±0.05mm, GOLD PLATING (GND PLATE: t=0.5±0.05mm, TIN PLATING)	
<b>SPECIFICATIONS</b>					
ITEM	TEST METHOD		REQUIREMENTS	QT	AT
<b>CONSTRUCTION</b>					
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.		ACCORDING TO DRAWING.	x	x
MARKING	CONFIRMED VISUALLY.			x	x
<b>ELECTRICAL CHARACTERISTICS</b>					
VOLTAGE PROOF	150 V AC FOR 1 min.		NO FLASHOVER OR BREAKDOWN.	x	x
INSULATION RESISTANCE	100 V DC.		500 MΩ MIN.	x	x
CONTACT RESISTANCE	AC 20 mV MAX ( 1 KHz ), 1 mA .		100 mΩ MAX. INCLUDING FFC BULK RESISTANCE (L=8mm)	x	x
<b>MECHANICAL CHARACTERISTICS</b>					
VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, - m/s <sup>2</sup> FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	-
SHOCK	981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.				
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.		① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	-
FFC RETENTION FORCE	MEASURED BY APPLICABLE FFC. (THICKNESS OF FFC SHALL BE t=0.30mm AT INITIAL CONDITION.)		DIRECTION OF INSERTION: 0.3N × n MIN.	x	-
<b>ENVIRONMENTAL CHARACTERISTICS</b>					
RAPID CHANGE OF TEMPERATURE ⚠	TEMPERATURE -40→+15 TO +35→+105→+15 TO +35°C TIME 30→ 2 TO 3 → 30 → 2 TO 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.	x	-
DAMP HEAT (STEADY STATE)	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 90 TO 95 %, 96 h.			x	-
DAMP HEAT, CYCLIC	EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h.			x	-
DRY HEAT ⚠	EXPOSED AT 105±2 °C, 96 h.		① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	-
COLD	EXPOSED AT -40±3°C, 96 h.			x	-
COUNT	DESCRIPTION OF REVISIONS		DESIGNED	CHECKED	DATE
⚠	7	DIS-F-00001058	HK. KINOUCHI	HS. SAKAMOTO	16.02.02
REMARK			APPROVED	MO. ISHIDA	09.07.07
			CHECKED	YN. TAKASHITA	09.07.07
			DESIGNED	YK. OTSUKA	09.07.07
Unless otherwise specified, refer to IEC 60512. ⚠			DRAWN	YK. OTSUKA	09.07.07
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC4-325208-00
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH41-**S-0.5SH (05)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	⚠ 1/2

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## SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CORROSION SALT MIST	EXPOSED AT 35±2°C , 5 % SALT WATER SPRAY FOR 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. ③ 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.		×	—
HYDROGEN SULPHIDE △ [JIS C 60068-2-43]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% ,10 TO 15 ppm FOR 96 h.		×	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 245±5 °C FOR IMMERSION DURATION, 2±0.5 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 DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—

**△ (note1)**

FOLLOW THE SPECIFICATIONS OF FFC IF IT'S ALLOWABLE MAXIMUM OPERATING TEMPERATURE IS BELOW 105°C.

**(note2)**

WHEN THE SAME VALUE OF CURRENT ARE APPLID TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

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