



**THE DATASHEET OF
FH52-40S-0.5SH**



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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	Δ -40 °C TO 105 °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 (note 1)	APPLICABLE CABLE	t=0.3±0.05mm, GOLD PLATING	
SPECIFICATIONS					
ITEM	TEST METHOD		REQUIREMENTS	QT	AT
CONSTRUCTION					
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.		ACCORDING TO DRAWING.	X	X
MARKING	CONFIRMED VISUALLY.			X	X
ELECTRIC CHARACTERISTICS					
CONTACT RESISTANCE	1mA(DC OR 1000Hz).		50 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm)	X	X
INSULATION RESISTANCE	100 V DC.		500 MΩ MIN.	X	X
VOLTAGE PROOF	150 V AC FOR 1 min.		NO FLASHOVER OR BREAKDOWN.	X	X
MECHANICAL CHARACTERISTICS					
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1 μs.	X	—
SHOCK	981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS.		② CONTACT RESISTANCE: 50 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
FPC RETENSION FORCE	MEASURED BY APPLICABLE FPC. (CONNECTOR,FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm)		DIRECTION OF INSERTION: 0.4xn N MIN (n : NUMBER OF CONTACTS).	X	—
ENVIRONMENTAL CHARACTERISTICS					
Δ RAPID CHANGE OF TEMPERATURE	TEMPERATURE -40→+15T ₀ +35→+105→+15T ₀ +35°C TIME 30→ 2 TO 3 → 30→ 2 TO 3 min. UNDER 5 CYCLES.		① CONTACT RESISTANCE: 50 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.		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.	X	—
Δ DRY HEAT	EXPOSED AT 105±2 °C, 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX.	X	—
COLD	EXPOSED AT -40±3°C, 96 h.		② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
CORROSION SALT MIST	EXPOSED AT 35±2 °C 5% SALT WATER SPRAY FOR 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	X	—
Δ SURPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 25±5 PPM FOR 96 h.			X	—
Δ HYDROGEN SULPHIDE [JIS C 60068-2-43]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 10 TO 15 PPM FOR 96 h.			X	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
Δ	6	DIS-F-00000491	SG. MASAKI	HS. SAKAMOTO	15. 07. 25
REMARK				APPROVED	MO. ISHIDA 10. 05. 13
				CHECKED	NM. NISHIMATSU 10. 05. 13
Δ	Unless otherwise specified, refer to IEC 60512.			DESIGNED	YS. EBI 10. 05. 12
				DRAWN	YS. EBI 10. 05. 12
Note	QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC4-328248-00	
HRS	SPECIFICATION SHEET		PART NO.	FH52-**S-0. 5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	Δ 1/2

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