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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	-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 ( <i>note</i> )	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
ELECTRICAL CHARACTERISTICS					
CONTACT RESISTANCE	AC 20 mV MAX ( 1 KHz ) , 1 mA .		50 mΩ MAX. INCLUDING FPC,FPC 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, — m/s <sup>2</sup> FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 mΩ MAX.	x	—
SHOCK	981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.		③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
FPC RETENTION FORCE	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.30mm AT INITIAL CONDITION.)		DIRECTION OF INSERTION: 0.4N × n MIN. (n:NUMBER OF CONTACTS)	x	—
ENVIRONMENTAL CHARACTERISTICS					
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -40→+15T <sub>0</sub> +35→+105→15T <sub>0</sub> +35°C TIME 30→ 2 T <sub>0</sub> 3 → 30→ 2 T <sub>0</sub> 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	—
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	—
SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% ,25±5 ppm FOR 96 h.			x	—
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
	0				
REMARK			APPROVED	NF. MIYAZAKI	15.10.17
			CHECKED	HS. SAKAMOTO	15.10.17
			DESIGNED	RT. IKEDA	15.10.17
Unless otherwise specified, refer to IEC 60512.			DRAWN	RN. IIDA	15.10.15
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-156370-05-05
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH28E-*S-0.5SH (05)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL586	△ 1/2

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## SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING (MAX 2 CYCLES) PEAK TMP. 250 °C MAX . REFLOW TMP. OVER 230 °C WITHIN 60 sec. PRE-HEAT 150 TO 200°C FOR 90 TO 120 sec. 2) SOLDERING IRONS : TMP. 350±10°C FOR 5±1 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	x	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 235±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.	x	—

**(note)**

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

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC-156370-05-05	
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH28E-*S-0.5SH(05)	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL586	△ 2/2