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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	$\Delta$ -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 <sup>2</sup> , 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				
$\Delta$ RAPID CHANGE OF TEMPERATURE	TEMPERATURE -40→+15T <sub>0</sub> +35→+105→+15T <sub>0</sub> +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	—
$\Delta$ 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	—
$\Delta$ SURPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 25±5 PPM FOR 96 h.		X	—
$\Delta$ 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
$\Delta$ 6	DIS-F-00000491	SG. MASAKI	HS. SAKAMOTO	15.07.25
REMARK		APPROVED	MO. ISHIDA	10.05.13
		CHECKED	NM. NISHIMATSU	10.05.13
$\Delta$		DESIGNED	YS. EBI	10.05.12
Unless otherwise specified, refer to IEC 60512.		DRAWN	YS. EBI	10.05.12
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC4-328248-00	
<b>HRS</b>	SPECIFICATION SHEET	PART NO.	FH52-**S-0.5SH	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	$\Delta$ 1/2

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## SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING (TO BE 2 TIMES MAX.) PEAK TMP. 250 °C MAX REFLOW TMP. 230 °C MIN FOR 30 sec. PRE-HEATING. 150 TO 200°C 90 TO 120 sec. SOLDERING IRONS : 350 ± 10 °C, FOR 5± 1 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—
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.	×	—

**(note 1)**

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.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC4-328248-00	
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH52-**S-0. 5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO	GL580	△ 2/2