

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
------	-------------	--------------	----	----

<b>CONSTRUCTION</b>				
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	X	X
MARKING	CONFIRMED VISUALLY.		X	X

<b>ELECTRIC CHARACTERISTICS</b>				
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

<b>MECHANICAL CHARACTERISTICS</b>				
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 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. (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	-

<b>ENVIRONMENTAL CHARACTERISTICS</b>				
$\Delta$ 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	-
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
$\Delta$ 4	DIS-F-00000491	SG. MASAKI	HS. SAKAMOTO	15.07.25

REMARK $\Delta$ Unless otherwise specified, refer to IEC 60512.	APPROVED	MO. ISHIDA	12.11.08
	CHECKED	HS. SAKAMOTO	12.11.08
	DESIGNED	SG. MASAKI	12.11.08
	DRAWN	SS. NABAE	12.11.08

Note QT:Qualification Test AT:Assurance Test X:Applicable Test DRAWING NO. ELC4-347552-01

<b>HRS</b>	SPECIFICATION SHEET	PART NO.	FH52E-**S-0.5SH	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	$\Delta$ 1/2

Apr.1.2017 Copyright 2017 HIROSE ELECTRIC CO., LTD. All Rights Reserved.

## 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. OVER 230 °C WITHIN 60 sec. PRE-HEATING. 150 TO 200°C 90 TO 120 sec. 2)SOLDERING IRONS : 350 ± 10 °C, FOR 5± 1 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	x	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 245±3 °C FOR IMMERSION DURATION, 3±0.3 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	x	—

**(note 1)**

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.		ELC4-347552-01	
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	FH52E-***S-0. 5SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL580	△ 2/2