

APPLICABLE STANDARD		SPECIFICATIONS					
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 (note 1)	APPLICABLE CABLE	t=0.3±0.05mm, GOLD PLATING			
CONSTRUCTION							
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.		ACCORDING TO DRAWING.		✗ ✗		
MARKING	CONFIRMED VISUALLY.				✗ ✗		
ELECTRIC CHARACTERISTICS							
CONTACT RESISTANCE	1mA(DC OR 1000Hz).		50 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm)		✗ ✗		
INSULATION RESISTANCE	100 V DC.		500 MΩ MIN.		✗ ✗		
VOLTAGE PROOF	150 V AC FOR 1 min.		NO FLASHOVER OR BREAKDOWN.		✗ ✗		
MECHANICAL CHARACTERISTICS							
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		✗ —		
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.		✗ —		
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.		✗ —		
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 ).		✗ —		
ENVIRONMENTAL CHARACTERISTICS							
⚠ RAPID CHANGE OF TEMPERATURE	TEMPERATURE -40 → +15 → +35 → +105 → +15 → +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.		✗ —		
⚠ DAMP HEAT (STEADY STATE)	EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h.				✗ —		
⚠ 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.		✗ —		
⚠ DRY HEAT	EXPOSED AT 105±2 °C, 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		✗ —		
⚠ COLD	EXPOSED AT -40±3°C, 96 h.				✗ —		
⚠ 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.		✗ —		
⚠ 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.				✗ —		
COUNT	DESCRIPTION OF REVISIONS		DESIGNED	CHECKED	DATE		
⚠ 4	DIS-F-00000491		SG. MASAKI	HS. SAKAMOTO	15.07.25		
REMARK				APPROVED	MO. ISHIDA		
				CHECKED	HS. SAKAMOTO		
				DESIGNED	SG. MASAKI		
⚠ Unless otherwise specified, refer to IEC 60512.				DRAWN	SS. NABAE		
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC4-347552-01		
HS	SPECIFICATION SHEET		PART NO.	FH52E-**S-0.5SH			
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	⚠ 1/2		

## 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.

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<b>HS</b>	SPECIFICATION SHEET	PART NO.	FH52E-**S-0.5SH		
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL580	△	2/2