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APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	-40 °C TO 105 °C(<i>note 1</i>)	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	3mA	APPLICABLE CIC	t=0.3±0.05mm Carbon hardness: Pencil hardness H or higher

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
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CONSTRUCTION

GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	×	×
MARKING	CONFIRMED VISUALLY.		×	×

ELECTRICAL CHARACTERISTICS

CONTACT RESISTANCE	0.1mA(DC OR 1000Hz).	50 Ω MAX. INCLUDING CIC BULK RESISTANCE (L=80mm)	×	—
INSULATION RESISTANCE	100 V DC.	500 MΩ MIN.	×	—
VOLTAGE PROOF	150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	×	—

MECHANICAL CHARACTERISTICS

MECHANICAL OPERATION	5 TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 70Ω 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: 70Ω MAX.	×	—
SHOCK	981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
CIC RETENTION FORCE	MEASURED BY APPLICABLE CIC. (CONNECTOR, CIC AT INITIAL CONDITION. THICKNESS OF CIC SHALL BE t=0.30mm)	DIRECTION OF INSERTION: 0.4×n N MIN (n : NUMBER OF CONTACTS). (<i>note 2</i>)	×	—

ENVIRONMENTAL CHARACTERISTICS

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 1000 CYCLES.	① CONTACT RESISTANCE: 70Ω MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO FLASHOVER OR BREAKDOWN.	×	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 60±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 1000 h.	④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
DAMP HEAT, CYCLIC	EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h.	① CONTACT RESISTANCE: 70 Ω MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO FLASHOVER OR BREAKDOWN. ⑤ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
DRY HEAT	EXPOSED AT 105±2 °C, 1000 h.	① CONTACT RESISTANCE: 70Ω MAX.	×	—
COLD	EXPOSED AT -40±3°C, 96h.	② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 80±5% , 25±5 ppm FOR 96 h.	① CONTACT RESISTANCE: 70Ω MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△				



REMARK	APPROVED	KN. SHIBUYA	20240322
	CHECKED	HS. HIRAHARA	20240322
	DESIGNED	TA. SUZUKI	20240322
	DRAWN	TA. SUZUKI	20240322

Unless otherwise specified, refer to IEC 60512.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-402412-00-00
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HRS	SPECIFICATION SHEET	PART NO.	FH52C-12S-1SH	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL0580-4661-0-00	△ 1/2

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SPECIFICATIONS					
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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 : 400 ± 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	—	
<p>(note 1) FOLLOW THE SPECIFICATIONS OF CIC IF IT'S ALLOWABLE MAXIMUM OPERATING TEMPERATURE IS BELOW 105°C</p> <p>(note 2) THERE'S A CASE WHICH FPC/FFC RETENTION FORCE DOESN'T FULFILL THE VALUE, BECAUSE FPC/FFC SPECIFICATION AFFECTS THE RESULT OF FPC/FFC RETENTION FORCE.</p>					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-402412-00-00
	SPECIFICATION SHEET		PART NO.	FH52C-12S-1SH	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL0580-4661-0-00	 2/2