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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	-55 °C TO 85 °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	APPLICABLE CABLE	t=0.3±0.05mm, GOLD PLATING.(4~30 POS.) t=0.3±0.03mm, GOLD PLATING.(OVER 31 POS.)		
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						
VOLTAGE PROOF	150 V AC FOR 1 min.		NO FLASHOVER OR BREAKDOWN.	x	x	
INSULATION RESISTANCE	100 V DC.		500 MΩ MIN.	x	x	
CONTACT RESISTANCE	AC 20 mV MAX (1 KHz), 1 mA .		50 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm)	x	x	
MECHANICAL CHARACTERISTICS						
VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, - m/s ² FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	-	
SHOCK	981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.			x	-	
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRACTIONS.		① CONTACT RESISTANCE: 50 mΩ MAX. ② 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 : 0.3N × n MIN.(4~30 POS.) 0.2N × n MIN.(OVER 31 POS.) (note 1)	x	-	
ENVIRONMENTAL CHARACTERISTICS						
CORROSION SALT MIST	EXPOSED AT 35±2 °C , 5 % SALT WATER SPRAY FOR 96 h.		① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	x	-	
RAPID CHANGE OF TEMPERATURE	TEMPERATURE-55→+15to+35→+85→+15to+35°C TIME 30→ 2to 3 → 30→ 2to 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	-	
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
Q						
REMARK			APPROVED	NF. MIYAZAKI	16.08.31	
			CHECKED	YH. MICHIDA	16.08.31	
			DESIGNED	KN. KOBAYASHI	16.08.31	
Unless otherwise specified, refer to IEC 60512.			DRAWN	RK. OGASAWARA	16.08.31	
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-156169-99-00	
HRS	SPECIFICATION SHEET		PART NO.	FH33-**S-0.5SH(99)		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	△ 1/2	

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SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
DRY HEAT	EXPOSED AT 85±2 °C, 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX.	x	—
COLD	EXPOSED AT -55±3°C, 96 h.	② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
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: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	x	—
HYDROGEN SULPHIDE [JIS C 60068-2-43]	EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 80±5% , 10 TO 15 ppm FOR 96 h.	③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	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	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING : PEAK TMP. 250 °C MAX . REFLOW TMP. OVER 230 °C WITHIN 60 sec. 2) SOLDERING IRONS : TMP. 350 ± 10 °C FOR 5±1 sec .	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	x	—

(note1)

THIS PRODUCT HAS FLIP-LOCK CONSTRUCTION. FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC-156169-99-00	
HRS	SPECIFICATION SHEET		PART NO.	FH33-**S-0. 5SH (99)	
	HIROSE ELECTRIC CO., LTD.		CODE NO	CL580	△ 2/2