

APPLICABLE STANDARD		SPECIFICATIONS				
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.)		
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 → +15 → +35 → +85 → +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.			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	
0						
REMARK				APPROVED	NF. MIYAZAKI	
				CHECKED	YH. MICHIDA	
				DESIGNED	KN. KOBAYASHI	
Unless otherwise specified, refer to IEC 60512.				DRAWN	RK. OGASAWARA	
Note QT: Qualification Test AT: Assurance Test X: Applicable Test			DRAWING NO.		ELC-156169-99-00	
	SPECIFICATION SHEET		PART NO.	FH33-**S-0.5SH (99)		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580		1/2

SPECIFICATIONS								
ITEM	TEST METHOD		REQUIREMENTS		QT	AT		
DRY HEAT	EXPOSED AT 85 ± 2 °C, 96 h.		① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		X	—		
COLD	EXPOSED AT -55 ± 3 °C, 96 h.		① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.		X	—		
SULPHUR DIOXIDE [JIS C 60068-2-42]	EXPOSED AT 40 ± 2 °C, RELATIVE HUMIDITY $80 \pm 5\%$ 25 ± 5 ppm 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	—		
HYDROGEN SULPHIDE [JIS C 60068-2-43]	EXPOSED AT 40 ± 2 °C, RELATIVE HUMIDITY $80 \pm 5\%$, 10 TO 15 ppm FOR 96 h.		A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.		X	—		
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 235 ± 5 °C FOR IMMERSION DURATION, 2 ± 0.5 sec.		NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.		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.				X	—		
<p>(note1)</p> <p>THIS PRODUCT HAS FLIP-LOCK CONSTRUCTION. FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.</p>								
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