




**THE DATASHEET OF
FH35C-31S-0.3SHW(50)**



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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 +105°C \triangle	STORAGE TEMPERATURE RANGE	-10°C TO +50°C(PACKED CONDITION)	
	VOLTAGE	30V AC/DC	OPERATING OR STORAGE HUMIDITY RANGE	RELATIVE HUMIDITY 90%MAX(NOT DEWED)	
	CURRENT	0.2A	APPLICABLE CABLE	t=0.2±0.03mm, GOLD PLATED	
SPECIFICATIONS					
ITEM	TEST METHOD		REQUIREMENTS	QT	AT
CONSTRUCTION					
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.		ACCORDING TO DRAWING.	×	×
MARKING	CONFIRMED VISUALLY.			×	×
ELECTRICAL CHARACTERISTICS					
VOLTAGE PROOF	90V AC FOR 1 min.		NO FLASHOVER OR BREAKDOWN.	×	×
INSULATION RESISTANCE	100V DC.		50M Ω MIN.	×	×
CONTACT RESISTANCE	AC 20mV MAX (1KHz), 1mA.		100m Ω MAX. INCLUDING FPC BULK RESISTANCE (L=12mm)	×	×
MECHANICAL CHARACTERISTICS					
VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1 μ s. ② CONTACT RESISTANCE: 100m Ω MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
SHOCK	981 m/s ² , DURATION OF PULSE 6ms AT 3 TIMES IN 3BOTH AXIAL DIRECTIONS.			×	—
MECHANICAL OPERATION	10 TIMES INSERTIONS AND EXTRACTIONS.		① CONTACT RESISTANCE: 100m Ω MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
FPC RETENTION FORCE	MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)		DIRECTION OF INSERTION: 0.2N × NUMBER OF CONTACTS MIN. (note1)	×	—
ENVIRONMENTAL CHARACTERISTICS					
CORROSION SALT MIST	EXPOSED AT 35±2°C, 5% SALT WATER SPRAY FOR 96h.		① CONTACT RESISTANCE: 100m Ω MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→+15 TO +35→+85→+15TO+35 °C TIME 30 → 2~3 → 30 → 2~3 min UNDER 5 CYCLES.			×	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 90 TO 95%, 96h.		① CONTACT RESISTANCE: 100m Ω MAX. ② INSULATION RESISTANCE: 50M Ω MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—
DAMP HEAT,CYCLIC	EXPOSED AT -10 TO +65 °C RELATIVE HUMIDITY 90 TO 96 % 10 CYCLES, TOTAL 240h.			×	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
\triangle	1	DIS-F-00000511	YH.MICHIDA	YN.TAKASHITA	15.07.29
REMARK			APPROVED	NM.NISHIMATSU	11.06.13
			CHECKED	FN.TAMURA	11.06.10
			DESIGNED	HH.MURAKAMI	11.06.10
			DRAWN	HH.MURAKAMI	11.06.10
Unless otherwise specified, refer to IEC 60512.					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC4-338903-01
HRS	SPECIFICATION SHEET		PART NO.	FH35C-**S-0.3SHW(50)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL580	\triangle 1/2

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
DRY HEAT	EXPOSED AT 85±2°C, 96h.	① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	×	—	
COLD	EXPOSED AT -55±3°C, 96h.		×	—	
SULPHUR DIOXIDE [JIS C 0090]	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 80±5 %, 25±5 ppm FOR 96h.	① CONTACT RESISTANCE: 100mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	×	—	
HYDROGEN SULPHIDE [JIS C 0092]	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 80±5 %, 10 TO 15 ppm FOR 96h.		×	—	
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.	×	—	
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING: PEAK TMP. 250°C MAX. REFLOW TMP. 230°C MIN WITHIN 60 sec. 2) SOLDERING IRONS: TMP. 350±10°C FOR 5±1 sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	×	—	
<p>(note1)</p> <p>FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED. DO NOT CLOSE THE ACTUATOR BEFORE INSERTING FPC EVEN AFTER THE CONNECTOR IS MOUNTED ONTO A PCB. CLOSING THE ACTUATOR WITHOUT FPC COULD MAKE THE CONTACT GAP SMALLER, WHICH INCREASES THE FPC INSERTION FORCE.</p> <p>THIS CONNECTOR HAS CONTACT POINTS ON BOTH TOP AND BOTTOM.</p>					
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