

In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD			
OPERATING TEMPERATURE RANGE HUMIDITY RANGE	-35°C TO +85°C(NOTES 1)	STORAGE TEMPERATURE RANGE	-10°C TO +60°C(NOTES 3)
	20% TO 80%(NOTES 2)	STORAGE HUMIDITY RANGE	40% TO 70%(NOTES 2)(NOTES 3)
VOLTAGE	50V AC / DC	APPLICABLE CONNECTOR	DF80※-50S-0.5V(##)
CURRENT	0.5 A/PIV (NOTE4)	APPLICABLE CABLE	THIN COAXIAL CABLE (AWG#40~AWG#46) / DISCRETE CABLE (AWG#32~36)

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	
		QT	AT
CONSTRUCTION			
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	X
MARKING	CONFIRMED VISUALLY.		X
ELECTRIC CHARACTERISTICS			
CONTACT RESISTANCE	100m A (DC OR 1000 Hz).	CONTACT:80mΩ MAX. SHIELDING:80mΩ MAX.	X
INSULATION RESISTANCE	100V DC.	50MΩ MIN.	X
VOLTAGE PROOF	150V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X

MECHANICAL CHARACTERISTICS			
MECHANICAL OPERATION 30 TIMES INSERTIONS AND EXTRactions.			
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, 3 DIRECTIONS, x 10 CYCLE.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X
SHOCK	490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.	① CONTACT RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. SHIELDING RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X

ENVIRONMENTAL CHARACTERISTICS			
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55 → +85 °C 30 → 30 min TIME UNDER 5 CYCLES. (THE TRANSFERRING TIME OF THE CHAMBER IS 2-3 MINUTE.)	① CONTACT RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. SHIELDING RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. ② INSULATION RESISTANCE: 25 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.	NO DEFECT SUCH AS CORROSION WHICH IMPAIRS THE FUNCTION OF CONNECTOR. NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X
SULFUR DIOXIDE GAS	EXPOSED IN 25PPM, 25°C, 75%RH, 96h.		X
RESISTANCE TO SOLDERING HEAT	① BONDING TEMPERATURE: 270°C MAX. 5 sec MAX 200°C MIN. 30 sec MAX ② MANUAL SOLDERING TEMPERATURE: 350°C, 3sec MAX.		X
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 245°C FOR INSERTION DURATION, 5 sec. (Sn-3.0Ag-0.5Cu)	SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	X

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△				

REMARKS
 NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT
 NOTE2: NON CONDENSING
 NOTE3: THE TERM "STORAGE" REFERS TO PRODUCTS STORED FOR A LONG PERIOD PRIOR TO MOUNTING AND USE. THE OPERATING TEMPERATURE AND HUMIDITY RANGE COVERS THE NON-CONDUCTING CONDITION OF CONNECTORS AFTER BOARD MOUNTING AND THE TEMPORARY STORAGE CONDITIONS OF TRANSPORTATION, etc
 NOTE4: TEMPERATURE RISE OF CONNECTOR BODY ONLY, AND THAT OF CASE IS NOT INCLUDED.
 RATED CURRENT VARIES DEPENDING ON CABLES ASSEMBLED.
 Unless otherwise specified, refer to JIS C 5402, IEC60512.

Note	QT:Qualification Test	AT:Assurance Test	X:Applicable Test	DRAWING NO.	ELC4-351373-01
APPROVED				TS. SAKATA	13. 05. 11
CHECKED				TS. SAKATA	13. 05. 11
DESIGNED				10. DENPOUYA	13. 05. 11
DRAWN				10. DENPOUYA	13. 05. 11

HRS		DF80D-50P-0.5SD (51)	
SPECIFICATION SHEET	PART NO.	DRAWING NO.	ELC4-351373-01
HIROSE ELECTRIC CO., LTD.	CODE NO.	CL662-8020-7-51	