



**THE DATASHEET OF  
DF50A-4P-1V(51)**



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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	-35°C TO + 85°C (NOTE1)	STORAGE TEMPERATURE RANGE	-10°C TO + 60°C (NOTE3)
	OPERATING HUMIDITY RANGE	20 % TO 80 % (NOTE2)	STORAGE HUMIDITY RANGE	40 % TO 70 % (NOTE3)
	VOLTAGE	AC/DC 100V	APPLICABLE CONNECTOR	DF50A-*S-1C
	CURRENT	AWG 28 : 1.0 A AWG 30 : 0.9 A	APPLICABLE CONTACT	DF50-2830SCFA

### SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
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#### CONSTRUCTION

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

#### ELECTRIC CHARACTERISTICS

CONTACT RESISTANCE	AC 20mV MAX 1mA (DC OR 1000 Hz).	30mΩ MAX.	X	—
INSULATION RESISTANCE	100V DC.	500MΩ MIN.	X	—
VOLTAGE PROOF	300V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	—

#### MECHANICAL CHARACTERISTICS

MECHANICAL OPERATION	30TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 50mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. ① NO ELECTRICAL DISCONTINUITY OF 1μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—	
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 10 CYCLE FOR EACH, FOR 3 DIRECTIONS.		① CONTACT RESISTANCE: 50mΩ MAX. ② INSULATION RESISTANCE: 100MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—
SHOCK	490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.			X	—

#### ENVIRONMENTAL CHARACTERISTICS

DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.	① CONTACT RESISTANCE: 50mΩ MAX. ② INSULATION RESISTANCE: 100MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	—
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→+85°C TIME 30→30min. UNDER 5 CYCLES. THE TRANSFERRING TIME OF THE TANK IS 2~3 min.		① CONTACT RESISTANCE: 50mΩ MAX. ② INSULATION RESISTANCE: 500MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△				

	APPROVED	KI. AKIYAMA	10.07.06
	CHECKED	OM. MIYAMOTO	10.07.05
	DESIGNED	TT. OHSAKO	10.07.05
	DRAWN	TT. OHSAKO	10.07.05

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC4-332937-00
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<b>HRS</b>	SPECIFICATION SHEET	PART NO.	DF50A-*P-1V (51)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL665-	△ 1/2

FORM HD0011-2-1


### SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, 245°C FOR INSERTION DURATION, 5 sec.	SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	X	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW SOLDERING «REFLOW AREA» MAX250°C WITHIN 10 sec MIN 220°C WITHIN 60 sec «PREHEATING AREA» 150~180°C 90~120s 2) MANUAL SOLDERING SOLDERING IPON TEMPERATURE 350±10°C SOLDERING TIME 3~4s. NO STRENGTH ON CONTACT.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—

**REMARKS**

NOTE 1: INCLUDING THE TEMPERATURE RISE BY CURRENT.  
 NOTE 2: NON-CONDENSING  
 NOTE 3: APPLY TO THE CONDITION OF LONG TERM STORAGE FOR UNUSED PRODUCTS BEFORE PCB ON BOARD.  
 AFTER PCB BOARD, OPERATING TEMPERATURE AND HUMIDITY RANGE IS APPLIED FOR INTERIM STORAGE DURING TRANSPORTATION

Unless otherwise specifid , refer to JIS C 5402.

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