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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 125 °C(NOTES 1)	STORAGE TEMPERATURE RANGE	-10 °C TO 60 °C(NOTES 2)
	VOLTAGE	50 V AC		
	CURRENT	0.3 A		

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
ELECTRIC CHARACTERISTICS				
CONTACT RESISTANCE	20 mV AC OR LESS 1 kHz, 1 mA.	50 mΩ MAX.	X	—
INSULATION RESISTANCE	100 V DC	500 MΩ MAX	X	—
VOLTAGE PROOF	150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	—
MECHANICAL CHARACTERISTICS				
MECHANICAL OPERATION	50 TIMES INSERTIONS AND WITHDRAWALS.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
SHOCK	490 m/s^2 DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
ENVIRONMENTAL CHARACTERISTICS				
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -65 →15 TO 35 →125 →15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
SULPHUR DIOXIDE	EXPOSED IN 25 PPM RH 75 % FOR 96 h. (TEST STANDARD:JEIDA-38)	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.	X	—
HEAT RESISTANCE OF SOLDERING	【RECOMMENDED TEMPERATURE PROFILE】 《SOLDERING AREA》 MAX250℃, 220℃ FOR 60 SECONDS MAX. 《PREHEATING AREA》 150 TO 180℃ 90～120 SECONDS. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION. 【RECOMMENDED MANUAL SOLDELING CONDITION 】 SOLDERING IRON TEMPERATURE 350℃ SOLDERING TIME : WITHIN 3 SECONDS.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—

REMARKS
NOTES1:INCLUDING THE TEMPERATURE RISE BY CURRENT.
NOTES2:STORAGEIS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS.
APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPLLY.

UNLESS OTHERWISE SPECIFIED , REFER TO JIS C 5402 .

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠0					

APPROVED	WR. FUKUCHI	20200716
CHECKED	TS. MIYAZAKI	20200716
DESIGNED	KT. KUSAKA	20200716
DRAWN	RN. IIDA	20200715

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO. ELC-389245-51-01

SPECIFICATION SHEET

HIROSE ELECTRIC CO., LTD.

PART NO. DF12NB(3.0)-20DS-0.5V(51)

CODE NO. CL537-0099-0-51 ⚠0 1/1

FORM HD0011-2-1