

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



APPLICABLE STANDARD		STORAGE TEMPERATURE RANGE	-10°C T0 + 60°C (NOTE2)
RATING	OPERATING TEMPERATURE RANGE	-45°C T0 +125°C (NOTES 1)	
	VOLTAGE	150V AC	DF9#--*S-1V(59)
	CURRENT	0.5A	DF9#--*S-1V(69)

### SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
<b>CONSTRUCTION</b>				
GENERAL EXAMINATION	VISUALLY AND BY MEASURING INSTRUMENT.	ACCORDING TO DRAWING.	X	X
MARKING	CONFIRMED VISUALLY.		X	X
<b>ELECTRIC CHARACTERISTICS</b>				
CONTACT RESISTANCE	100m A (DC OR 1000 Hz).	50mΩ MAX.	X	-
INSULATION RESISTANCE	100V DC.	500MΩ MIN.	X	-
VOLTAGE PROOF	250V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	-

<b>MECHANICAL CHARACTERISTICS</b>				
MECHANICAL OPERATION	100TIMES INSERTIONS AND EXTRACTIONS.	① CONTACT RESISTANCE: 50mΩ MAX. ② NO DAMAGE, CRACK OR 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 1μs. ② 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.	① NO ELECTRICAL DISCONTINUITY OF 1μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	-

<b>ENVIRONMENTAL CHARACTERISTICS</b>				
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -65 → 5 TO 35 → 125 → 5 TO 35°C TIME 30→10 TO 15 → 30→10 TO 15min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 50mΩ MAX. ② INSULATION RESISTANCE: 500 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.	① CONTACT RESISTANCE: 50mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	-
CORROSION SALT MIST	EXPOSED IN 5% SALT WATER SPRAY FOR 48 h.	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.	X	-
SULPHUR DIOXIDE	EXPOSED IN 10 PPM FOR 96 h. (TEST STANDARD: JEIDA-39)	① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION.	X	-
HEAT RESISTANCE OF SOLDERING	[RECOMMENDED TEMPERATURE PROFILE] 《SOLDERING AREA》 MAX250°C, 220°C FOR 60 SECONDS MAX. 《PREHEATING AREA》 150 TO 180°C 90~120 SECONDS. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION. [RECOMMENDED MANUAL SOLDERING CONDITION ] SOLDERING IRON TEMPERATURE 380°C SOLDERING TIME : WITHIN 3 SECONDS.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	-
SOLDERABILITY	SOLDERING TEMPERATURE: 245 ± 5°C DURATION OF IMMERSION : SOLDERING FOR 3SECONDS	A NEW UNIFORM COATING OF SOLDER SHALL COVER MINIMUM OF 95% OF THE SURFACE BEING IMMERSSED.	X	-

**REMARKS**  
 NOTE1: INCLUDING THE TEMPERATURE RISE BY CURRENT.  
 NOTE2: STORAGE IS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS.  
 APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY.

UNLESS OTHERWISE SPECIFIED, REFER TO JIS C 5402.

△	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
1		D1S-H-001222	AR, TAKAHASHI	TS, MIYAZAKI	06.08.01
			APPROVED	TY, OMA	04.04.01
			CHECKED	TY, OMA	04.04.01
			DESIGNED	HK, UMEHARA	04.03.31
			DRAWN	MY, NAKAMOTO	04.03.31

Note QT: Qualification Test AT: Assurance Test X: Applicable Test DRAWING NO. **ELC4-305986-13**

<b>SPECIFICATION SHEET</b>		PART NO.	DF9-*P-1V(69)
HIROSE ELECTRIC CO., LTD.		CODE NO.	CL540