



**THE DATASHEET OF  
DF19K-20P-1H(52)**




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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	40% TO 80% (NOTE2)	STORAGE HUMIDITY RANGE	40% TO 70% (NOTE3)	
	VOLTAGE	100 V AC (DC)	APPLICABLE CONNECTOR	DF19 (G) -*S-1# (NOTE4)	
	CURRENT	AWG28: 1A/pin AWG30: 0.9A/pin AWG32: 0.8A/pin			
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	AC 20mV, 1mA (DC OR 1000 Hz).	30 mΩ MAX.	X	-	
INSULATION RESISTANCE	100 V DC.	500 MΩ MIN.	X	-	
VOLTAGE PROOF	300 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	-	
<b>MECHANICAL CHARACTERISTICS</b>					
MECHANICAL OPERATION	30 TIMES INSERTIONS AND EXTRACTIONS.	1) CONTACT RESISTANCE: 30 mΩ MAX. 2) NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X	-	
VIBRATION	FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 10 CYCLES FOR 3 DIRECTIONS.	1) NO ELECTRICAL DISCONTINUITY OF 1 μs. 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.		X	-	
<b>ENVIRONMENTAL CHARACTERISTICS</b>					
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55→5 TO 35→+85 →5 TO 35 °C TIME 30→2 TO 3 → 30 →2 TO 3 min UNDER 5 CYCLES.	1) CONTACT RESISTANCE: 30 mΩ 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.		X	-	
RESISTANCE TO SOLDERING HEAT	(1) REFLOW SOLDERING «REFLOW AREA» MAX 250°C WITHIN 10 sec MIN 230°C WITHIN 60 sec «PREHEATING AREA» 170 °C TO 190 °C 60sec TO 120 sec PUT THROUGH IN REFLOW FUMACE TWICE. LEAVE IN AMBIENT TEMPERATURE AND HUMIDITY FOR 1 HOUR (2) MANUAL SOLDERING SOLDERING IRON TEMPERATURE 350±5 °C, FOR 5±1 sec. NO STRENGTH ON CONTACT.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	-	
SOLDERABILITY	SOLDERING TEMPERATURE: 245°C DURATION OF IMMERSION: SOLDERING, FOR 5 sec	A NEW UNIFORM COATING OF SOLDER SHALL COVER MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.	X	-	
<b>REMARKS</b>					
NOTE1: INCLUDING THE TEMPERATURE RISE BY CURRENT.					
NOTE2: NO CONDENSING					
NOTE3: APPLY TO THE CONDITION OF LONGTERM STORAGE FOR UNUSED PRODUCTS BEFORE MOUNTED ON PCB. AFTER MOUNTED ON PCB, OPERATING TEMPERATURE AND HUMIDITY RANGE IS APPLIED FOR INTERIM STORAGE DURING TRANSPORTATION.					
NOTE4:#=TERMINATION STYLE MARKING. (C:CRIMP SOCKET,F:FPC SOCKET,SD:SOCKET FOR FINE COAXIAL CABLES)					
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
Unless otherwise specified, refer to IEC 60512.			APPROVED	HS. OKAWA	20200313
			CHECKED	TS. KUMAZAWA	20200313
			DESIGNED	HK. HAYASHI	20200313
			DRAWN	DS. HIROWATARI	20200306
Note QT: Qualification Test AT: Assurance Test X:Applicable Test			DRAWING NO.		ELC-302815-52-00
	SPECIFICATION SHEET		PART NO.	DF19K-**P-1H (52)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL685-	1/1

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