


Feb.1.2025 Copyright 2025 HIROSE ELECTRIC CO., LTD. All Rights Reserved.  
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

	COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE		COUNT	DESCRIPTION OF REVISIONS	BY	CHKD	DATE
△						△					
△						△					
<b>APPLICABLE STANDARD</b>											
RATING	Operating Temperature Range		-55°C to 105°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)			
	Applicable Connector		DF51K-4DS-2C(###)			Current		AWG 30 : 0.5A    AWG 28 : 1.0A AWG 26 : 2.0A    AWG 24 : 2.5A AWG 22 : 3.0A			
	Voltage		100V AC/DC								
<b>SPECIFICATIONS</b>											
ITEM		TEST METHOD				REQUIREMENTS				QT	AT
<b>CONSTRUCTION</b>											
General Examination		Visually and by measuring instrument.				According to drawing.				0	0
Marking		Confirmed visually.								0	0
<b>ELECTRICAL CHARACTERISTICS</b>											
Contact Resistance		20mV MAX, 1mA (DC or 1000Hz).				30 mΩ MAX.				0	-
Millivolt Level Method											
Insulation Resistance		500 V DC.				1,000 MΩ MIN.				0	-
Voltage Proof		500 V AC for 1 min.				No flashover or breakdown.				0	-
<b>MECHANICAL CHARACTERISTICS</b>											
Mechanical Operation (Sn Plating)		30 times insertion and extraction.				①Contact resistance : 30mΩ MAX ②No damage, crack or looseness of parts.				0	-
Mechanical Operation (Au Plating)		50 times insertion and extraction.				①Contact resistance : 30mΩ MAX ②No damage, crack or looseness of parts.				0	-
Mating and unmating force (Sn Plating)		It takes out and inserts with a conformity connector.				①Insertion Force : 24.2N MAX ②Extraction Force : 1.2N MIN				0	-
Mating and unmating force (Au Plating)		It takes out and inserts with a conformity connector.				①Insertion Force : 16.2N MAX ②Extraction Force : 1.0N MIN				0	-
Vibration		Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 directions.				①No electrical discontinuity of 1 μ s. ②No damage, crack or looseness of parts.				0	-
Shock		Acceleration 490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times for 3 directions.								0	-
<b>ENVIRONMENTAL CHARACTERISTICS</b>											
Damp Heat (Steady State)		Exposed at 40 ± 2 °C , humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)				①Contact resistance : 30 mΩ MAX. ②Insulation resistance : 500MΩ MIN. ③No damage, crack or looseness of parts.				0	-
Remarks											
Note 1: Include the temperature rising by current.											
Note 2: No 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.											
					DRAWN	DESIGNED	CHECKED	APPROVED	RELEASED		
					J.S CHO	J.S CHO	S.M.LIM	S.M.LIM			
					21.05.14	21.05.14	21.05.14	21.05.14			
Unless otherwise specified, refer to IEC 60512.											
NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST											
HIROSE KOREA CO.,LTD.				SPECIFICATION SHEET				PART NO.			
								DF51K-4DP-2H(800)			
CODE NO.(OLD)			DRAWING NO.			CODE NO.			1		
CL			ELC4-633519			CL 6652-0080-8-800			2		

Rapid Change of Temperature	Temperature -55 °C → +105 °C Time 30min → 30min Under 5 Cycles. (The transferring time of the tank is 2 to 3 MIN) (After leaving the room temperature for 1 to 2h.)	①Contact resistance : 30 mΩ MAX. ②Insulation resistance : 1,000MΩ MIN. ③No damage, crack or looseness of parts.	O	-
Dry Heat	Exposed at 105±2 °C, 96h	①Contact resistance : 30 mΩ MAX. ②Insulation resistance : 1,000MΩ MIN. ③No damage, crack or looseness of parts.	O	-
Cold	Exposed at -55±3 °C, 96h	①Contact resistance : 30 mΩ MAX. ②Insulation resistance : 1,000MΩ MIN. ③No damage, crack or looseness of parts.	O	-
Resistance To Soldering Heat	Reflow time Number of reflow cycles : 2cycles MAX Duration above 220°C, 60sec. MAX. Peak temperature : 250°C 10sec. MAX	No deformation of case of excessive looseness of the terminals.	O	-
Solderability	Soldering temperature : 245 °C Duration of immersion : soldering, for 5 sec.	New uniform coating of solder shall cover minimum of 95 % of the surface Being immersed.	O	-
Recommended Temperature Profile	<p style="text-align: center;"><u>REFLOW TEMPERATURE PROFILE USING LEAD-FREE SOLDER PASTE (REFERENCE)</u></p> <p>NUMBER OF REFLOW CYCLES 2CYCLES MAX. THE TEMPERATURE IS MEASURED IN THE TERMINAL LEAD PART.</p> <p>ADDITIONAL FACTORS, SUCH AS SOLDER PASTE TYPE, PCB SIZE AND OTHER MOUNTED COMPONENTS COULD AFFECT THE PROFILES. THEREFORE, A THOROUGH EVALUATION OF MOUNTING CONDITION IS REQUIRED PRIOR TO PRODUCTION.</p>			

NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST O: APPLICABLE TEST

HIROSE KOREA CO.,LTD.	SPECIFICATION SHEET	PART NO. DF51K-4DP-2H(800)
CODE NO.(OLD) CL	DRAWING NO. ELC4-633519	CODE NO. CL 6652-0080-8-800
		2/2