





Oct.1.2024 Copyright 2024 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.

Applicable standard									
Rating	Operating Temperature range	-40 °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	100V AC/DC				Applicable Connector	DF52#*P-0.8C		
	Current 	Number of contacts	AWG28	AWG30	AWG32	Applicable contact	DF52-2832PCF 		
2		2.5A	2.0A	1.5A					
3-5		2.0A	1.5A	1.0A					
6-10		1.5A	1.2A	0.8A					
	12-20	1.2A	1.0A	0.8A					
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 Millivolt level method	20mV MAX, 1mA (DC or 1000Hz).				10 mΩ MAX.			X	—
Insulation resistance	100 V DC.				100 MΩ MIN.			X	—
Voltage proof	300 V AC for 1 min.				No flashover or breakdown.			X	—
<b>Mechanical characteristics</b>									
Mechanical operation	20 times insertion and extraction.				①Contact resistance: 20 mΩ MAX. ②No damage, crack or looseness of parts.			X	—
Vibration	Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.				①No electrical discontinuity of 1 μs. ②No damage, crack or looseness of parts.			X	—
Shock	490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times each for 3 both axial directions.				①No electrical discontinuity of 1 μs. ②No damage, crack or looseness of parts.			X	—
<b>Environmental characteristics</b>									
Damp heat (Steady state)	Exposed at 40 ± 2°C , 90 to 95 %, 96 h. (After leaving the room temperature for 1~2h.)				①Contact resistance: 20 mΩ MAX. ②Insulation resistance: 100 MΩ MIN. ③No damage, crack or looseness of parts.			X	—
Rapid change of temperature	Temperature -55°C → +85°C Time 30min → 30min Under 5 cycles. (The transferring time of the tank is 2~3 min) (After leaving the room temperature for 1~2h.)				①Contact resistance: 20 mΩ MAX. ②Insulation resistance: 100 MΩ MIN. ③No damage, crack or looseness of parts.			X	—
RESISTANCE TO SOLDERING HEAT	1) Reflow soldering 《Reflow time》 Number of reflow cycles : 2 cycles MAX. Duration above 220°C, 60 sec. MAX. Peak temperature: 250°C 10 sec. MAX. 《Pre-heat time》 Pre-heat temperature(MIN) :150°C Pre-heat temperature(MAX) :180°C Pre-heat time(MIN) : 90 sec. Pre-heat time(MAX) : 120 sec. 2) Manual soldering Soldering iron temperature :350±10°C, Soldering time : 3sec. 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.				New uniform coating of solder shall cover minimum of 95 % of the surface being immersed.			X	—
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 on board, operating temperature and humidity range is applied for interim strage during transportation.									
	Count	Description of revisions			Designed		Checked		Date
	2	DIS-H-009224			TH. YOSHI ZAWA		HK. UMEHARA		14. 11. 20
Remarks  Unless otherwise specified, refer to IEC 60512.						Approved	KI. AKIYAMA	14. 06. 27	
						Checked	HK. UMEHARA	14. 06. 27	
						Designed	TH. YOSHI ZAWA	14. 06. 26	
						Drawn	TH. YOSHI ZAWA	14. 06. 26	
Note QT:Qualification Test AT:Assurance Test X:Applicable Test					Drawing No.		ELC4-356517-01		
<b>HRS</b>	Specification sheet				Part No.		DF52-*S-0. 8H (21)		
	HIROSE ELECTRIC CO., LTD.				Code No.		CL668-		 1/1