May.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	-55 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)
	Voltage	250 V AC/DC	UL・C-UL Rating	Voltage	30 V AC/DC
	Current	AWG 22 to 24 : 2.0A AWG 26 : 1.5A AWG 28 : 1.0A AWG 30 : 0.5A		Current	2.0A
			Applicable Connector		DF51-16DS-2C
			Applicable Contact		DF11-****SC(F)(##)

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 Millivolt Level Method	20mV MAX, 1mA (DC or 1000Hz).	30 mΩ MAX.	X	—
Insulation Resistance	500 V DC.	1000 MΩ MIN.	X	—
Voltage Proof	650 V AC for 1 min.	No flashover or breakdown.	X	—
Mechanical Characteristics				
Mechanical Operation	30 times insertion and extraction.	1.Contact resistance: 30 mΩ MAX. 2.No damage, crack or looseness of parts.	X	—
Mating and unmating force	It takes out and inserts with a conformity connector.	1.Insertion Force :72.2 N MAX. 2.Extraction Force :4.2 N MIN.	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	Acceleration 490 m/s^2 duration of pulse 11 ms at 3 times for 3 directions.		X	—
Environmental Characteristics				
Damp Heat (Steady State)	Exposed at 40 ± 2°C , humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)	1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 500 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
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.)	1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 1000 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
Dry Heat	Exposed at 105±2°C, 96h	1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 1000 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—
Cold	Exposed at -55±3°C, 96h	1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 1000 MΩ MIN. 3.No damage, crack or looseness of parts.	X	—

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 mount on pcb,
After mounted on pcb, operating temperature and humidity range is applied for interim storage during transportation.

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
②2	2	DIS-H-00005270	TS.MIYAKI	SZ.ONO	20190912

APPROVED	HS.OKAWA	20180529
CHECKED	ST.WADA	20180529
DESIGNED	TH.SATO	20180528
DRAWN	TH.SATO	20180528

Unless otherwise specified, refer to IEC 60512.

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

		DRAWING NO.	ELC-363561-20-00
HRS	SPECIFICATION SHEET	PART NO.	DF51A-16DP-2DS(20)
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL543-5063-0-20 ②2 1/2

FORM HD0011-2-1

May.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.

Specifications

Item	Test method	Requirements	QT	AT
Resistance To Soldering Heat	1)Solder bath method ⚠2 Soldered at solder temperature, 260°C for in immersion, duration, 5 s. 2)Manual soldering Soldering iron temperature :270°C, Soldering time :3s. No strength on contact.	Such as impaired function ,no deformation of case of excessive looseness of the terminals. ⚠2	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 QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO.	ELC-363561-20-00		
SPECIFICATION SHEET	PART NO.	DF51A-16DP-2DS(20)	
HIROSE ELECTRIC CO., LTD.	CODE NO	CL543-5063-0-20 ⚠2	2/2