Mar.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 ①△	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	DF63SF-3S-3.96C	Voltage	630V AC/DC
	Applicable contact	DF63SF-1618SCFA(##)	Current	AWG#16 : 15 A/pin AWG#18 : 13 A/pin

①△	Rated Voltage	Rated Current	Overvoltage Category	IP-Degree
UL,C-UL	600V AC/DC	See above	-	-
TÜV	300V AC/DC	See above	Ⅱ	IP00

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	20mV MAX, 1mA (DC or 1000Hz).	10 mΩ MAX.	X	–
Insulation resistance	500 V DC.	1000 MΩ MIN.	X	–
Voltage proof	2200 V AC for 1 min.	No flashover or breakdown.	X	–
Mechanical characteristics				
Mechanical operation	50 times insertion and extraction.	1) Contact resistance: 20 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 direction.	1) No electrical discontinuity of 1 μs. 2) No damage, crack or looseness of parts.	X	–
Shock	490 m/s² duration of pulse 11 ms at 3 times each for 3 both axial directions.	1) No electrical discontinuity of 1 μs. 2) No damage, crack or looseness of parts.	X	–
Mating force	Measured by applicable connector.	Insertion force : 20.0 N MAX Extraction force : 1.0 N MIN	X	–
Environmental characteristics				
Damp heat (Steady state)	Exposed at 40 ± 2℃ , 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)	1) Contact resistance: 20 mΩ MAX. 2) Insulation resistance: 500 MΩ Min. 3) No damage, crack or looseness of parts.	X	–
Rapid change of temperature	Temperature -55℃→ +105℃ 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: 20 mΩ MAX. 2) Insulation resistance: 1000 MΩ Min. 3) No damage, crack or looseness of parts.	X	–
Dry heat	Exposed at +105℃,96h.	1) Contact resistance: 20 mΩ MAX. 2) Insulation resistance: 1000 MΩ Min. 3) No damage, crack or looseness of parts.	X	–
Cold	Exposed at −55℃,96h.	1) Contact resistance:20 mΩ MAX. 2) Insulation resistance: 1000 MΩ Min. 3) No damage, crack or looseness of parts.	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 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
①△	2	DIS-H-00006130	TS.MIYAKI	SZ.ONO	20200730

Remarks

Unless otherwise specified, refer to IEC 60512.

Approved	HS.OKAWA	20170123
Checked	YN.TAKASHITA	20170123
Designed	SANGMUK.LIM	20170123
Drawn	SANGMUK.LIM	20170123

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

		Drawing No.	ELC-374749-52-00	
HRS	Specification sheet	Part No.	DF63SF-2P-7.92TV(52)	
	HIROSE ELECTRIC CO., LTD.	Code No.	CL680-0704-0-52	①△ 1/2

FORM HD0011-2-1

Mar.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) 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. Do not reflow upside down. 2) Manual soldering Soldering iron temperature :350±10°C Soldering time : 5s. No strength on contact.	No deformation of case of excessive looseness of the terminals.	X	–
Solderability	Soldered at solder tempereture 245°C for in immersion,duration,5s.	A new uniform coating of solder shall cover minimum of 95% of the surface being immersed.	X	–