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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	-40 °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	DF61Y-2S-2.2C	Current	AWG 28 : 3.0A AWG 26 : 3.2A AWG 24 : 4.0A
	Voltage	350 V AC/DC		

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).	10 mΩ MAX.	X	–
Insulation resistance	500 V DC.	1000 MΩ MIN.	X	–
Voltage proof	1200 V AC for 1 MIN.	No flashover or breakdown.	X	–
Mechanical characteristics				
Mechanical operation	30 times insertion and extraction.	①Contact resistance: 20 mΩ MAX. ②No damage, crack or looseness of parts.	X	–
Contact insertion and extraction forces	It takes out and inserts with a conformity connector.	①Insertion force : 20.0N MAX. ②Extraction force: 0.5N MIN.	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^2 duration of pulse 11 ms at 3 times for 3 directions.		X	–
Environmental characteristics				
Damp heat (Steady state)	Exposed at 40 ± 2℃ , 90 to 95 %, 96 h. (after leaving the room temperature for 1-2h.)	①Contact resistance: 20 mΩ MAX. ②Insulation resistance: 500 MΩ MIN. ③No damage, crack or looseness of parts.	X	–
Rapid change of temperature	Temperature -55℃→ +85℃ 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: 500 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 ℃, 60 sec. MAX. Peak temperature: 250℃ 10 sec. MAX. ≪Pre-heat time≫ Pre-heat temperature(MIN) :150 ℃ Pre-heat temperature(MAX) :180 ℃ Pre-heat time(MIN) : 90 sec. Pre-heat time(MAX) : 120 sec. 2) Manual soldering Soldering iron temperature :350±10℃, 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	–

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 befor pcb on board,
After pcb on board, operating temperature and humiditty range is applied for interim storage during transportation.

	Count	Description of revisions	Designed	Checked	Date
△0	1				

Approved	KI.AKIYAMA	15.06.11
Checked	HK.UMEHARA	15.06.11
Designed	ST.SATO	15.06.11
Drawn	MI.SAKIMURA	15.06.11

Unless otherwise specifid , refer to IEC 60512.

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

Drawing no. ELC-361873-23-00

HRS	Specification sheet	Part no.	DF61Y-2P-2.2V(23)	
	Hirose electric co., ltd.	Code no.	CL666-5100-3-23	△0 1/1

FORM HD0011-2-1