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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	DF59M-2224PC(F) DF59M-2628PC(F)	Current	MAX 6A
			Voltage	AC/DC 300V (NOTE4)

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	DC6V MAX, 100mA.	45mΩ MAX.	X	—
Mechanical characteristics				
Mechanical operation	20 times insertion and extraction.	①45mΩ 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 1μs. ②No damage, crack or looseness of parts.	X	—
Shock	490 m/s^2 duration of pulse 11 ms at 3 times each for 3 both axial 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.)	①45mΩ MAX. ②No 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 2～3 min) (After leaving the room temperature for 1～2h.)		X	—
Resistance to soldering heat	1) Reflow Soldering Number of reflow cycles : 2cycles max. ≪Reflow Area≫ duration above 220℃, 60sec.MAX. peak temperature: 250℃, 10sec.MAX. ≪Pre-heat Area≫ Pre-heat temperature:150℃ TO 180℃ Pre-heat time:90sec.TO 120sec. 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 5sec.	New uniform coating of solder shall cover minimum of 95% OF THE SURFACE being immersed.	X	—

NOTE1:Include The Temperature Rising By Current.
NOTE2:No Condensing
NOTE3:Apply To The Condition Of Long Term Storage For Unused Products Befor Pcb On Board, After Pcb Board , operating temperature and humidity range is Applied for interim strage during transportation.
NOTE4:In accordance with IEC60664 and JIS C 60664,creepage distance of 1.6mm or more is required in 300V of rated voltage.
(In pollution degree2 of printed wiring material)
Please follow the standard applied to your device for required creepage distance and clearance.

	Count	Description of revisions	Designed	Checked	Date
△0					

Remarks

Unless otherwise specified, refer to JIS C 5402 and IEC60512.

Approved	HK.UMEHARA	14.05.20
Checked	HK.UMEHARA	14.05.20
Designed	SZ.ONO	14.05.20
Drawn	SZ.ONO	14.05.20

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

Drawing no. ELC4-356514-01

HRS	Specification sheet	Part no.	DF59M-1S-H(21)	
	HIROSE ELECTRIC CO., LTD.	Code no.	CL667-0041-5-21 △0	1/1

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