Coperating   Coperating   Coperating   Current   Cur	Applicab	le standard							
temperature range   temperature   temperature range   temperat				-35 °C to +85 °C(Note 1)	Storag	ge	-10 °C to +60 °C(N		
Numidity range   Nu				,	tempe	erature range			
Specifications   Test method   Requirements   QT   AT	Rating	Operating				•	40 % to 70 %(Note3)		
Item   Test method   Requirements   QT   AT		humidity range							
Test method   Requirements   QT   AT		Current		1 A	Volta	ge	150 V AC(DC	)	
Construction General examination Visually and by measuring instrument.  General examination Visually and by measuring instrument.  Marking Confirmed visually.  Contact resistance  100 mA (DC or 1000 Hz).  Insulation resistance  100 v DC.  Voltage proof  500 V AC for 1 min.  More flashover or breakdown.  X −  Mechanical characteristics  Mechanical operation  50 times insertions and extractions.  50 times insertions and extractions.  Frequency 10 to 55 Hz, single amplitude  0.75 mm, at 2 h, for 3 directions.  Shock  490 m/s² duration of pulse 11 ms at 3 times for 3 directions.  Environmental characteristics  Rapid change of temperature -55→ 5 to 35→45→ 5 to 35 °C  Time 30→ 5 max → 30→ 5 max min Under 5 cycles.  Damp heat (steady state)  Resistance to soldering heat  Max250 °C within 60 sec  Preheating area ≫  170 °C to 190 °C 60 sec to 120 sec put through in reflow furmace twice leave in ambient tor second reflow.  2) Manual soldering Soldering time 5±1 sec.  No strength on contact.  Solder as billions and pressure and humidity for 1 hour.  Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering time 5±1 sec.  No strength on contact.  Solder as billions and pressure and humidity for 1 hour.  Connector temperature to be ambient tore second reflow.  2) Manual soldering time 5±1 sec.  No strength on contact.  Solder as solder temperature,  Solder shall cover a minimum of				Specificat	tions				
Ceneral examination   Visually and by measuring instrument.   According to drawing.   X   X   X   Marking   Confirmed visually.   X   X   X   X   Electric characteristics		Item		•		Requirements			АТ
Marking Confirmed visually. X X Electric characteristics  Contact resistance 100 mA (DC or 1000 Hz). 30 mΩ MAX. X − Insulation resistance 100 V DC. 500 MΩ MIN. X − Voltage proof 500 V AC for 1 min. No flashover or breakdown. X − Mechanical operation 50 times insertions and extractions. 2) No damage, crack or looseness of parts. Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts. Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts. X − Environmental characteristics  Rapid change of temperature 55→ 5 to 35→85→ 5 to 35 °C Time 30→5 max → 30→5 max min Under 5 cycles. Time 30→5 max → 30→5 max min Under 5 cycles. Exposed at 40±2 °C, 90 to 95 %, 96 h. (steady state)	Construc	ction							
Electric characteristics   Contact resistance   100 mA (DC or 1000 Hz).   30 mΩ MAX.   X   -	General exan	nination	Visually ar	nd by measuring instrument.	,	According to drawing.			Х
Contact resistance   100 mA (DC or 1000 Hz).   30 mΩ MAX.   X   −	Marking		Confirmed visually.			1			Х
Insulation resistance 100 V DC. 500 MΩ MIN. X — Voltage proof 500 V AC for 1 min. No flashover or breakdown. X — Mechanical characteristics  Mechanical operation 50 times insertions and extractions. 1) Contact resistance: 30 mΩ MAX. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 2 h, for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 11 ms at 3 times for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 11 ms at 3 times for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 11 ms at 3 times for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 11 ms at 3 times for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 11 ms at 3 times for 3 directions. 2) No damage, crack or looseness of parts.    Vibration Frequency 10 to 55 Hz, single amplitude 11 ms at 3 ti	Electric (	characteristi	cs						
Voltage proof   500 V AC for 1 min.   No flashover or breakdown.   X	Contact res	istance	100 mA (DC or 1000 Hz).			30 mΩ MAX.			_
Mechanical characteristics         1) Contact resistance: 30 mΩ MAX.         χ	Insulation resistance		100 V DC.			500 MΩ MIN.			_
Mechanical operation   S0 times insertions and extractions.   1) Contact resistance: 30 mΩ MAX.   2) No damage, crack or looseness of parts.   X   −	Voltage proof		500 V AC for 1 min.			No flashover or breakdown.			_
2) No damage, crack or looseness of parts.   X   - Vibration   Frequency 10 to 55 Hz, single amplitude   0.75 mm, at 2 h, for 3 directions.   2) No damage, crack or looseness of parts.   X   - Shock   490 m/s² duration of pulse 11 ms at 3 times for 3 directions.   2) No damage, crack or looseness of parts.   X   - Environmental characteristics	Mechani	cal characte	ristics						
Vibration   Frequency 10 to 55 Hz, single amplitude   0.75 mm, at 2 h, for 3 directions.   2) No damage, crack or looseness of parts.   X	Mechanical	operation	50 times	insertions and extractions.		1) Contact resistar	nce: 30 mΩ MAX.		
O.75 mm, at 2 h, for 3 directions.   2) No damage, crack or looseness of parts.   X   -		•				2) No damage, crack or looseness of parts.			_
directions.	Vibration								_
Environmental characteristics  Rapid change of temperature -55 → 5 to 35 → +85 → 5 to 35 °C temperature	Shock		490 m/s <sup>2</sup>	duration of pulse 11 ms at 3 times for	. 3	, 3.			
Rapid change of temperature       Temperature -55→ 5 to 35→+85→ 5 to 35 °C Time 30→ 5 max → 30→ 5 max min Under 5 cycles.       1) Contact resistance: 30 mΩ MAX.       X       —         Damp heat (steady state)       Exposed at 40±2 °C, 90 to 95 %, 96 h.       No damage, crack or looseness of parts.       X       —         Resistance to soldering heat       1) Reflow soldering «Reflow area»       No deformation of case of excessive looseness of the terminals.       X       —         Max250 °C within 10 sec Min 230 °C within 60 sec «Preheating area» 170 °C to 190 °C 60 sec to 120 sec put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow.       X       —         2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.       Solder shall cover a minimum of       X								<u> </u>	_
temperature       Time       30 → 5 max → 30 → 5 max min       2) Insulation resistance: 500 MΩ MIN.       X       —         Damp heat (steady state)       Exposed at 40±2 °C, 90 to 95 %, 96 h.       No damage, crack or looseness of parts.       X       —         Resistance to soldering heat       1) Reflow soldering «Reflow area»       No deformation of case of excessive looseness of the terminals.       X       —         Max250 °C within 10 sec Min 230 °C within 60 sec «Preheating area»       170 °C to 190 °C 60 sec to 120 sec put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow.       2) Manual soldering Soldering time: 5±1 sec. No strength on contact.       Solder shall cover a minimum of									
Under 5 cycles.  Damp heat (steady state)  Resistance to soldering heat  (Steady state)  1) Reflow soldering		-	Tempera	ture -55 $\rightarrow$ 5 to 35 $\rightarrow$ +85 $\rightarrow$ 5 to 35 °C		,		\ \ \	
(steady state)  Resistance to soldering heat  1) Reflow soldering ≪Reflow area≫						,	X	_	
(steady state)  Resistance to soldering heat  1) Reflow soldering ≪Reflow area≫	Damp heat					,	·		
heat  ≪Reflow area≫  Max250 °C within 10 sec  Min 230 °C within 60 sec  ≪Preheating area≫  170 °C to 190 °C 60 sec to 120 sec  put through in reflow fumace twice  leave in ambient temperature and  humidity for 1 hour.  Connector temperature to be  ambient for second reflow.  2) Manual soldering  Soldering iron temperature: 350±5 °C,  Soldering time: 5±1 sec.  No strength on contact.  Solder shall cover a minimum of	(steady stat							X	_
Max250 °C within 10 sec Min 230 °C within 60 sec ≪ Preheating area ≫ 170 °C to 190 °C 60 sec to 120 sec put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow. 2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of	Resistance to soldering		Reflow soldering			No deformation of case of excessive			
Min 230 °C within 60 sec  ≪Preheating area ≫  170 °C to 190 °C 60 sec to 120 sec put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of	heat		≪Reflow area≫			looseness of the terminals.			_
≪ Preheating area ≫ 170 °C to 190 °C 60 sec to 120 sec put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow. 2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			Max	250 °C within 10 sec					
170 °C to 190 °C 60 sec to 120 sec put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			Min	230 °C within 60 sec					
put through in reflow fumace twice leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			≪Preh	neating area≫					
leave in ambient temperature and humidity for 1 hour. Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			170	°C to 190 °C 60 sec to 120 sec					
humidity for 1 hour. Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			put t	hrough in reflow fumace twice					
Connector temperature to be ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			leav	e in ambient temperature and					
ambient for second reflow.  2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			hum	idity for 1 hour.					
2) Manual soldering Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			Con	nector temperature to be					
Soldering iron temperature: 350±5 °C, Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			amb	ient for second reflow.					
Soldering time: 5±1 sec. No strength on contact.  Solderability Soldered at solder temperature, Solder shall cover a minimum of			2) Manua	al soldering					
No strength on contact.  Solderability  Soldered at solder temperature,  Solder shall cover a minimum of			Solder	ing iron temperature: 350±5 °C,					
Solderability Soldered at solder temperature, Solder shall cover a minimum of			Solder	ing time: 5±1 sec.					
			No stre	ength on contact.					
235±5 °C for insertion duration, 3 sec. 95 % of the surface being immersed.	Solderability	у	Soldered	at solder temperature,	:	Solder shall cover	a minimum of		
			235±5 °C	c for insertion duration, 3 sec.		95 % of the surface being immersed.			_

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 pcb on board, after pcb on board, operating temperature and humidity range is applied for interim storage during transportation.

Unless otherwise specified, refer to IEC 60512.

	Count	Description of revisions	Designed		Checked		Date	
$\Delta$								
						HS. OKAWA	16. 05. 3	30
			Checked		TS. FUKUSHIMA	16. 05. 3	16. 05. 30	
				Desig	ned	HT. SATO	16. 05. 3	30
				Drav	wn	HK. HAYASHI	16. 05. 3	30
Note	Note QT:Qualification Test AT:Assurance Test X:Applicable Test			Drawing no.		ELC-160525-83-00		
ЖS		Specification sheet	Part no.	DF14A-25P-1. 25H(83		3)		
		Hirose electric co., ltd.	Code no.	CL538-0124-		3-0124-7-83	<u></u> 1/1	1