LEAD FREE この製品は鉛フリー品です

JAPAN AVIATION ELECTRONICS IND., LTD. CONNECTOR DIVISION 日本航空電子工業株式会社 コネクタ事業部 THIS SPECIFICATION TABLE CANNOT BE REPRODUCED WITHOUT WRITTEN CONSENT OF JAE. この製品規格表は日本航空電子工業株式会社の許可のない限り複写を禁じます。.	**SPECIFICATION TABLE** **製品規格表**	Connector Specification No. **JACS-10189-01** Connector Series Name 品名 **WM2F054WPA** **WM2M054JPA** Applicable Drawing No. 製品図面 SJ100657, SJ100658 TK C

Rev. 版数	Date 発行日	DCN No	Drawn by 担当	Checked by 査閲	Approved by 承認
1	19 Nov, 2004	–	N. Uchiyama	Y. YAHIRO	K. Hisatome
2					
3					

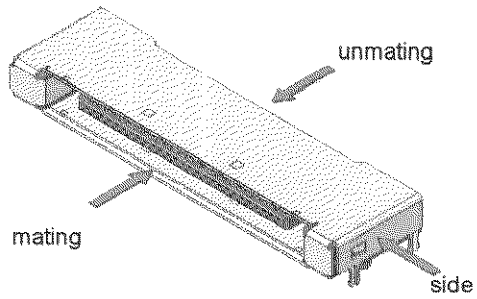
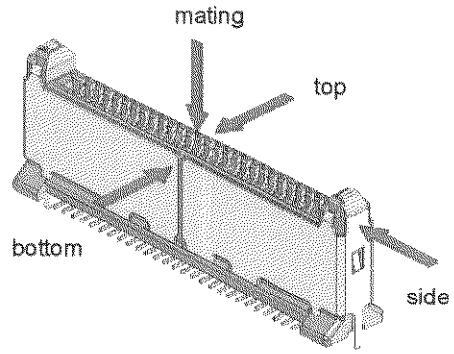
Standard data 定格

Current (signal)	AC 0.5A r.m.s. per contact
Voltage (signal)	AC 125V r.m.s.
Operating temperature range	-40℃ to 85℃

Notes:
1. This specification covers the requirements for the WM2 series connectors.
2. This connector series have (Lead-free)Tin plated parts. Although this plate might be tarnished depending on the temperature profile in soldering, the product performance satisfies this specification.

Item	Procedure 試験方法	Requirement 規定
MECHANICAL		
Examination of product	Visual, dimensional and functional inspection.	Meets requirements of product drawing.
Material & finish		Meets requirements of product drawing.
Connector mating force	Measure force necessary to mate between the counterpart connectors.	18N (Max.)
Connector unmating force	Measure force necessary to unmate between the counterpart connectors.	16.5N (Max.)
Contact retention	Measure the contact retention after the tensile test.	5N (Min.)

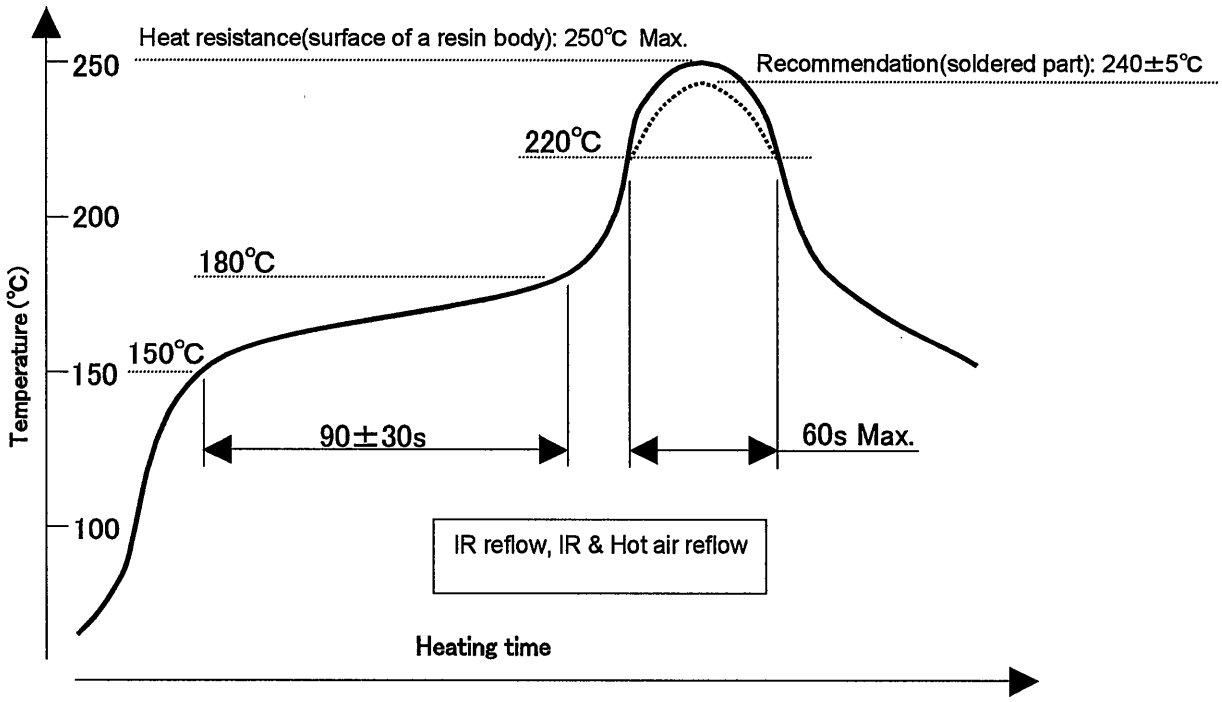
JACS-10189-01

Item	Procedure 試験方法	Requirement 規定
Vibration	Applying an appropriate holder is allowed in Vibration test and Shock test. Amplitude 1.5mm at 10~55Hz for 2 hours for each connector, 3 axes, 6 hours in total.	No electrical discontinuity more than 1 μs . No damage.
Shock	MIL-STD-202, Method 202, 490m/s^2, 3 axes	
Durability	Mate and unmate the connector for 10,000 cycles.	Contact Resistance: 80m Ω (Max.)
Driving torque test	Tighten it with a torque.	9N.cm (Min.) (Avoid making damages to the insulator).
Mechanical strength	Applied force in direction (The mated state) WM2M054JPA (1)Force in un-mating direction: 490 N (2)Force in mating direction: 220 N (3)Force applied to sides: 490 N  WM2F054WPA (1)Force in mating direction: 490 N (2)Force applied to sides: 350 N (3)Force applied to top : 50 N (4)Force applied to Bottom: 50 N  	No damage that affects function

ELECTRICAL		
Voltage proof	Apply the specified voltage between adjacent contacts.	500V AC r.m.s. No breakdown caused for 1 minute.
Insulation resistance	Apply 500V DC between adjacent contacts and measure its insulation resistance within 1 minute.	100MΩ (Min.)
Contact resistance	Measure it with low voltage less than 20mV and 1mA.	60mΩ (Max.)
Shell resistance	Measure it with low voltage less than 20mV and 1mA.	40mΩ (Max.)
ENVIRONMENTAL		
Rapid change of temperature	Subject specimens to 5 cycles between -55°C and +85°C.	Insulation resistance: 50MΩ (Min.) Voltage proof: 250 V r.m.s. 1 minute. No breakdown. Contact resistance: 80mΩ (Max.)
Damp heat, steady state	Subject specimens to 90 to 95% RH at 60°C at for 96 hours.	
Corrosion, salt mist	Subject specimens to 5% salt concentration at 35°C for 48 hours.	There should be no corrosion detrimental to contact connection. Contact resistance: 80mΩ (Max.)
Resistance to soldering heat	See Figure 1 for the condition	No damage.
Dry heat (high temperature)	Subject specimens to 85 °C for 96 hours continuously	Contact resistance: 80mΩ (Max.)
Solder ability	After dipping in the flux for 5 to 10 seconds, immerse connector specimens to a solder of Sn-Ag-Cu (Sn96.5%) mated at 240± 3°C for 5± 0.5 seconds.	More than 90% of the surface is covered with solder.
Solder heat	Reflow soldering method: At heat-resistant temperature profile (see below) Soldering iron method: Soldering iron temperature 350±5°C for 3±0.5s	No defects such as appearance

【Heat-resistant and Recommended temperature profile of reflow soldering】

Preheating temperature		150 to 180℃	90±30s
Main heating temperature		220℃ or more	60s Max.
Peak temperature	Heat resistance	250℃ Max	10s Max.
	Recommendation	240±5℃	10s Max.
Number of reflows		2 cycles or less	



Note: As this reflow conditions varies in the reflow facility and PCB, please conduct the evaluation of your reflow conditions before manufacturing.