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文件名称： FPC CONECTOR SERIES STANDARD SPECIFICATION

Production unit： RD Document No： QRD-F001

Production Date： 2019.04.24 Rev.： B

Distribution unit： Page： 6

Revision of records

Revision date	Application No.	Summary of the amendments	Page	Rev.
2019.04.24	/	New issue	1-5	A
2023.03.27	/	Modify the salt spray standard	3	B

Editor	Review	Approved
WILSON	JACK	WX.L

1. SCOPE:

This specification covers the FPC/FFC CONNECTOR Series.

2.ORDERING INFORMATION:

See attached drawings.

3. CONNECTOR DIMENSIONS:

See attached drawings.

4. MATERIAL:

Housing :	LCP.
	Color : Beige
	Flammability Rating (UL94V-0)
Slider :	PA
	Color : Black
	Flammability Rating (UL94V-0)
Contacts :	Phosphor Bronze
Solder Pad :	Brass
Contact Plating :	Au Plating
Solder Pad Plating:	Au Plating

5. RECOMMENDED FPC / FFC:

See attached drawings.

6. ACCOMMODATED P.C.B LAYOUT:

See attached drawings.

7. RATING:

Operating Voltage: AC 5V , DC 5V , See attached drawings.
Current Rating: 0.2 ~ 0.5 A , See attached drawings.
Operating Temperature: -55°C ~ +85°C (Including terminal temperature rise)

8.TEST REQUIREMENTS AND PROCEDURES SUMMARY

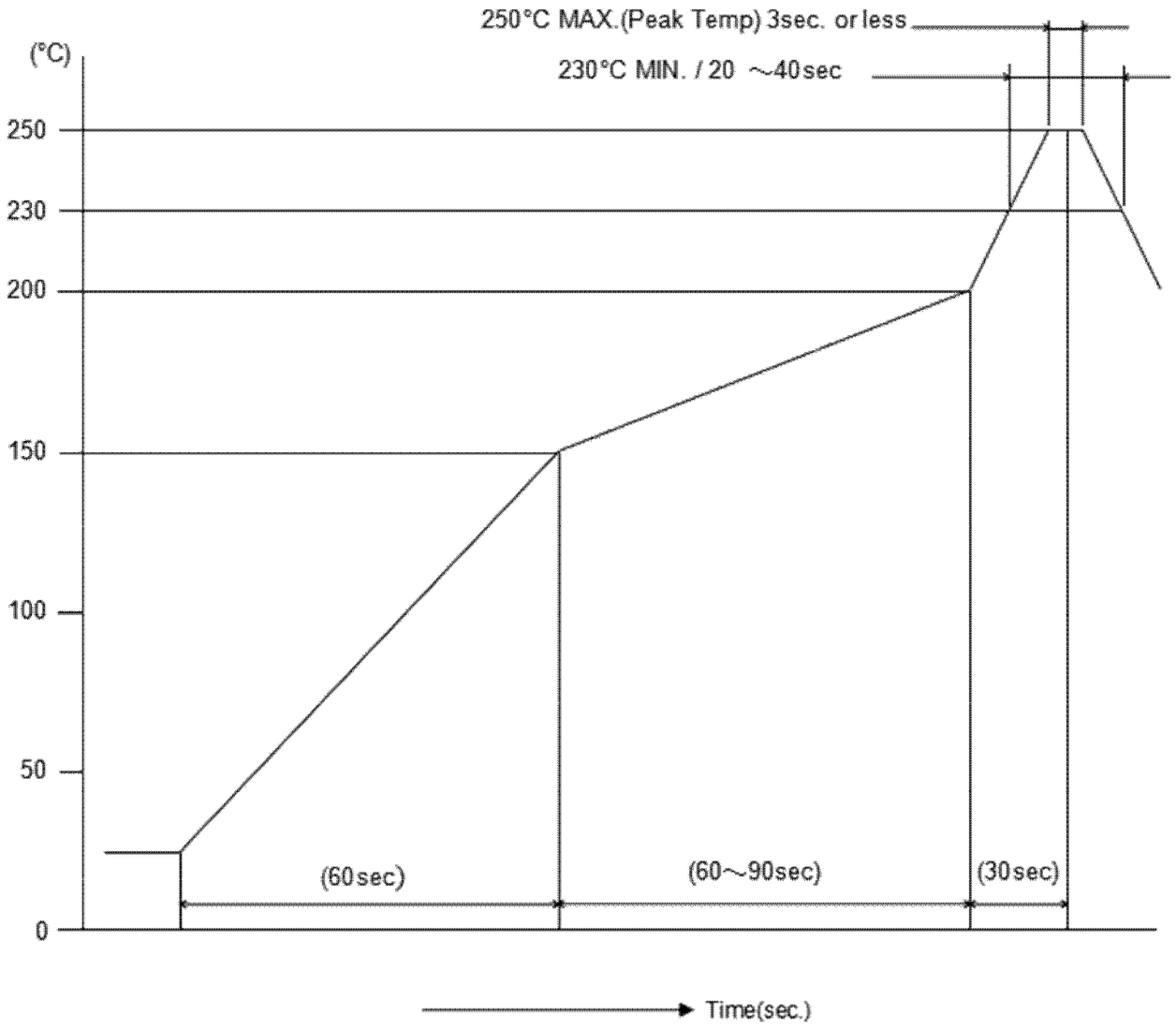
TEST DESCRIPTION	REQUIREMENT	PROCEDURED
Examination of Product	Meets requirements of product drawing and specification.	Visual inspection No physical damage
ELECTRICAL		
Contact Resistance	30mΩ MAX.	Subject mated contacts assembled in housing to closed circuit current of 10mA MAX. at open circuit voltage 20Mv
Insulation Resistance	50MΩ MIN.	Measure by applying test potential between the adjacent contacts. Current Voltage：500VDC MIL-STD-202, Method 302, Condition B
Dielectric Withstanding Resistance	No creeping discharge or flashes occur.	Measure by applying test potential between the adjacent contacts. Current Voltage：250V AC rms., for 1 minute MIL-STD-202, Method 301
MECHANICAL		
Durability	See Note	Mate and unmated connectors for 20cycles. Applicable Cable：0.3mm thickness FPC
FPC Retention Force	Pos. ×0.03kgf MIN.	Apply axial load to FPC. Operation speed：25 ±3 mm/min.
Vibration	No discontinuities of 1μsec. or longer duration.	Amplitude：1.5mm Sweep time：10～55～10Hz, 1 minute Duration：2hours in each X.Y.Z axes MIL-STD-202, Method 201
Physical Shock	No discontinuities of 1μsec. or longer duration.	Test wave：Half-Sine shock pulses Test peak：50G MIL-STD-202, Method 213, Condition A
Contact Retention Force	0.03kgf MIN.	Apply an axial pull-off load to contact and solder peg.Operation speed：25 ±3 mm/min.

TEST DESCRIPTION	REQUIREMENT	PROCEDURED
ENVIRONMENTAL		
Humidity-Cycling Test	See Note.	Subject mated connectors. Period：10cycles Temperature：25°C ～ 65°C Relative Humidity：95% R.H. MIL-STD-202, Method 106
Thermal Shock	See Note.	Subject mated connectors. Period：25cycles Temperature：-55°C /30min. and +85°C /30min. MIL-STD-202, Method 107, Condition A-1
Salt Spray	See Note.	Subject mated connectors. Salt concentration : 5％ Period：24hours Temperature :35°C
PHYSICAL		
Solderability	The test area shall be covered more than 95% of immersed area with fresh solder.	Temperature : 245 ±5℃ ,3±0.5sec. *For Tin (Lead Free) using* MIL-STD-202F, Method 208
Resistance to Soldering Heat	See Note.	Hand soldering Solder Temperature: 380 ± 5°C, 3 ± 0.5sec. *For Tin (Lead Free) using* (When reflowing)See paragraph 8.1

NOTE: Shall meet visual requirements, show no physical damages.

8.1 INFRARED REFLOW CONDITION

Tin (Lead Free)



NOTE: Please check the reflow soldering condition by your own devices beforehand .
Because the condition changes by the soldering devices, p.c. boards, and so on.

9.PRODUCT QUALIFICATION AND REQUALIFICATION TEST SEQUENCE

	Test Group							
Test or Examination	A	B	C	D	E	F	G	H
	Test Sequence (a)							
Examination of Product	1	1,6	1,3	1,3	1	1,5	1	1,3
Contact Resistance		2,5				2,4		
Insulation Resistance	2,6							
Dielectric Withstanding Resistance	3,7							
Durability		3						
FPC Retention Force		4						
Vibration			2					
Physical Shock				2				
Contact Retention Force					2			
Humidity-Cycling Test	4							
Thermal Shock	5							
Salt Spray						3		
Solder ability							2	
Resistance to Soldering Heat								2

NOTE：(a) Numbers indicate sequence in which tests are performed.