

SPECIFICATION AND PERFORMANCE

Series	124A-3 Series	File	124A-3_SEPC	Date	2019/6/12
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Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of below table

P/N	DESCRIPTION
124A-40A03	DDR4 SODIMM Socket, Horizontal 4.0H, STD, G/F, Black, Reel, Solder PEG
124A-40A13	DDR4 SODIMM Socket, Horizontal 4.0H, RVS, G/F, Black, Reel, Solder PEG
124A-52A03	DDR4 SODIMM Socket, Horizontal 5.2H, STD, G/F, Black, Reel, Solder PEG
124A-52A13	DDR4 SODIMM Socket, Horizontal 5.2H, RVS, G/F, Black, Reel, Solder PEG
124A-80A03	DDR4 SODIMM Socket, Horizontal 8.0H, STD, G/F, Black, Reel, Solder PEG
124A-80A13	DDR4 SODIMM Socket, Horizontal 8.0H, RVS, G/F, Black, Reel, Solder PEG
124A-92A03	DDR4 SODIMM Socket, Horizontal 9.2H, STD, G/F, Black, Reel, Solder PEG
124A-92A13	DDR4 SODIMM Socket, Horizontal 9.2H, RVS, G/F, Black, Reel, Solder PEG

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIALS

NO.	PART NAME	DESCRIPTION
1	HOUSING	LCP E6808, UL94V-0, Black
2	CONTACT	Phosphor Bronze C5210 0.15t, gold flash on contact area, gold flash on solder area, 50u" min. nickel under plated over all
3	LATCH	Stainless Steel SUS301 0.3t
4	PEG	Stainless Steel SUS301 0.3t, 50u" min. matte-tin plating over all, 50u" min. nickel under plating

RATING

Rated Voltage	25 VAC
Rated Current	0.6A/ Pin
Operating Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Durability	50 Cycles

ELECTRICAL		
Item	Requirement	Test Condition
Low level Contact Resistance	Initial: 50mΩ max. Final: 60mΩ max	Solder connectors on PCB and mate them together, measure by applying closed circuit current of 100mA maximum at open circuit voltage of 20mV maximum. EIA-364-23
Dielectric Withstanding Voltage	No evidence of flash over or insulation shall take place. Current leakage: 1mA Max.	500VAC for 1 minute. Test between adjacent circuits of unmated connector. EIA-364-20
Insulation Resistance	Initial : 250MΩ Min. Final : 100MΩ Min.	Impressed voltage 500VDC. Test between adjacent circuits of unmated connector. EIA-364-21

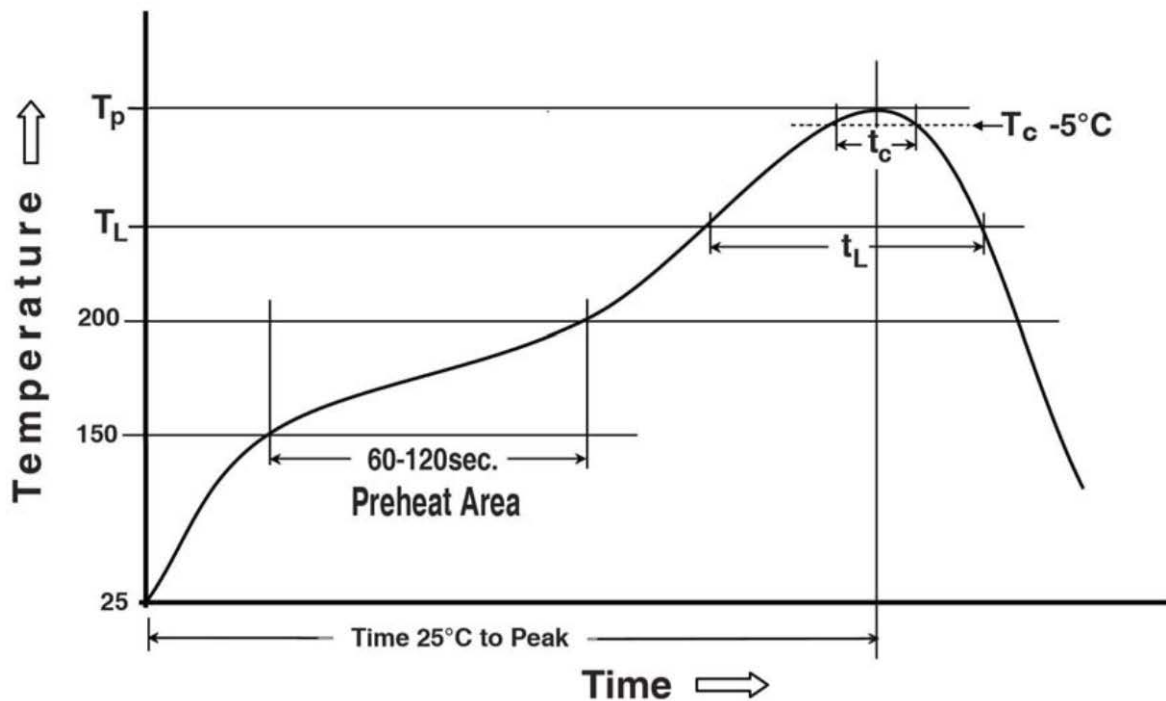
MECHANICAL		
Item	Requirement	Test Condition
Mating Force/ Un-mating Force	Mating Force: 59.8N Max. Un-mating Force: 44.6N Max.	Card mating/un-mating sequence: a) Insert the card at the angle specified by the manufacture. b) Rotate the card into position. c) Reverse the installation sequence to un-mating. Operation Speed: 25.4mm per minute. Measure the force required to mate/Un-mate connector. EIA-364-13 Method A
Durability	50 cycles No evidence of physical damage.	The sample should be mounted in the tester and fully mate and un-mated the rate of 25.4mm per minute. EIA-364-09
Durability (Preconditioning)	3 cycles No evidence of physical damage.	The sample should be mounted in the tester and fully mate and un-mated the rate of 25.4mm per minute. EIA-364-09.
Vibration	No electrical discontinuity greater than 1μ sec shall occur. No evidence of physical damage.	15 minutes in each of 3 mutually perpendicular directions. Both mating halves should be rigidly fixed so as not to contribute to the relative motion of one contact against another. EIA-364-28, Test condition VII, Test condition latter D
Mechanical Shock	No electrical discontinuity greater than 1μ sec shall occur. No evidence of physical damage.	50G, 11ms Half sine, No. of Drops: 3 drops each to normal and reversed directions of X, Y, and Z axes, totally 18 drops. EIA-364-27B

ENVIRONMENTAL		
Item	Requirement	Test Condition
Humidity Temperature Cycle	Contact Resistance 60mΩ max.	Mated Connector. Initial measurement, cold shock and vibration. Cycle the connector between 25±3°C at 85±3%RH and 65±3°C at 50±3%RH. Ramp times should be 0.5 hour and dwell times should be 1.0 hour. Dwell times start when the temperature and humidity have stabilized within the specified levels. Perform 24 such cycles. EIA-364-31, method III
Thermal Shock	Contact Resistance 60mΩ max.	Mated Connector. Units are non-operating Temperature -55°C to +85°C 30 minute dwell at each high and low temp. extreme, 10 cycles EIA-364-32, test condition I
Temperature Life	Contact Resistance 60mΩ max.	Mated Connector, 105°C, 96 hours EIA-364-17, method A
Temperature Cycling	Contact Resistance 60mΩ max.	Mated connector Cycle the connector or socket between 15°C±3°C and 85°C±3°C, as measure on the part. Ramps should be a min. of 2°C per minute, and dwell times, should insure that the contacts reach the temperature extremes (a min. of 5 minutes) Humidity is not controlled. Perform 500 such cycles.
Mixed Flowing Gas	Contact Resistance 60mΩ max	Mated connector, duration 120hours EIA-364-65, class IIA
Thermal Disturbance	Contact Resistance 60mΩ max	Cycle the connector or socket between 15°C ±3°C and 85°C±3°C, as measured on the part. Ramps should be a min. of 2°C per minute, and dwell times should insure that the contacts reach the temperature extremes (a min. of 5 minutes) Humidity is not controlled. Perform 10 such cycles
Salt Spray	Contact Resistance 60mΩ max	Salt concentration: 5±1% Temperature 35±2°C Test time: 48 hours, after salt is removed by running water and a drop is removed, it is measured EIA-364-26



SOLDER ABILITY		
Item	Requirement	Test Condition
Solder Ability	Solder coverage 95% MIN.	Solder 5±0.5 seconds. Solder temperature: 245±5°C EIA-364-52
Reflow Soldering Heat Resistance	No evidence of physical damage	Pre-heat: 150~215°C, 30~120 sec. Reflow: 230°C Min, 40 sec Min. Peak temp: 260°C Max, 10 sec Max.

Reflow Profile



Preheating temperature: 150 ~ 215°C, 30~120 seconds

Liquidus temperature (T_L): 217°C, 60~150 seconds

Peak temperature: 260°C

Time within 5 °C of peak temperature (T_c): 255°C, 10seconds

Test sequence:

Test item		Test group							
		A	B	C	D	E	F	G	H
1	Examination of product	1,9	1,8	1,10	1,10	1,10	1,12	1,5	1,4
2	Low level contact resistance	2,6	2,7	2,5,7, 9	2,5,7, 9	2,5,7, 9	2,5,7, 9,11	2,4	
3	Insulation resistance	3,7							
4	Dielectric withstanding voltage	4,8							
5	Mating/ un-mating force		3,6						
6	Durability	5	4	3	3	3	3		
7	Durability (Preconditioning)		5	8	8		10		
8	Vibration					8			
9	Mechanical shock					6			
10	Solderability								3
11	Thermal shock				4				
12	Temperature life			4		4	4		
13	Thermal cycling			6					
14	Humidity temperature cycling				6				
15	Thermal disturbance						6		
16	Mixed flowing gas						8		
17	Salt spray							3	
18	Reflow soldering heat resistance								2
Quantities of samples		5	5	5	5	5	5	5	5