

Molex 43255-0011 PDF

深圳创唯电子有限公司

<http://www.molex-connect.com>



MOLEX INCORPORATED
LISLE, ILL. 60532 U.S.A.

PRODUCT SPECIFICATION
FOR .084/(2.13) DIAMETER SERIES
PIN AND SOCKET HEADER ASSEMBLIES

(HOT TIN PLATED TERMINALS ONLY)

1.0 Scope:
 B This specification covers the .250 inch (6.35 mm) centerline tin plated printed circuit board connector series.

2.0 Product Description:
2.1 Product Name and Part Number

	Product Name	Part Number
	Pin header assembly, 2 circuit	A-42002-2*1A*
	Pin header assembly, 3 circuit	A-42002-3*1A*
	Pin header assembly, 4 circuit	A-42002-4*1A*
<input type="checkbox"/> B	Pin header assembly, 6 circuit	A-42002-6*1A*
	Pin header assembly, 9 circuit	A-42002-9*1A*
	Pin header assembly, 12 circuit	A-42002-12*1A*
	Pin header assembly, 15 circuit	A-42002-15*1A*

<input type="checkbox"/> B	Socket header assembly, 2 circuit	A-42002-2*1A*
	Socket header assembly, 3 circuit	A-42002-3*1A*
	Socket header assembly, 4 circuit	A-42002-4*1A*
	Socket header assembly, 6 circuit	A-42002-6*1A*
	Socket header assembly, 9 circuit	A-42002-9*1A*
	Socket header assembly, 12 circuit	A-42002-12*1A*
	Socket header assembly, 15 circuit	A-42002-15*1A*

2.2 Mating components
 B Housing: Plug 42021-*
Terminal: Pin 42023-1A1*
Terminal: Socket 42024-A1*

2.3 Printed circuit board
Solder tail length:
 B 1. For a .062/(1.57) thick board, the .17/(4.3) solder tail length is recommended.
2. For a .125/(3.18) thick board, the .23/(4.3) solder tail length is recommended.

2.4 Materials, Platings and Markings
See the appropriate Sales Drawings for information on materials, platings and markings

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DRAWG. NO.
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DRAWG. NO.
PSX-42002-0001



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3.0 Applicable Documents and Specifications:
See the Sales Drawings and the other sections of this Specification.

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3.1 Agency approvals:
UL file number: applied for
CSA file number: applied for

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4.0 Ratings:

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It is standard practice in the industry to rate header connector systems the same as in-line connector systems. All the below listed ratings and tests are valid, but it is possible that certain practices and materials of printed circuit board technology will undermine the below listed values, and as such are out of our control. It's the responsibility of the end user to determine the suitability of these products for the application.

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4.1 Voltage : 600 Volts
4.2 Current : 2,3 and 4 Circuit- 12.0 Amps Maximum
6,9,12 and 15 Circuit- 9.0 Amps Maximum
4.3 Temperature: Operating -55C to +105C

5.0 Performance Specifications

5.1 Electrical Performance

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ITEM	TEST CONDITION	REQUIREMENT
Contact Resistance [Low Level]	Mate connectors with a maximum voltage of 20 mV and a current of 100 mA (MIL-STD-1344A METHOD 3004.1)	2.5 milliohms Maximum (initial)

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Insulation Resistance	Mate connectors with a voltage of 500 VDC between adjacent terminals. (MIL-STD-1344A METHOD 3003.1)	1000 Megohms Minimum (initial)
Dielectric Strength	Mate connectors with a voltage of 2900 VAC for 1 minute between adjacent terminals. (MIL-STD-1344A METHOD 3001.1)	No Breakdown

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PSX-42002-0001

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2



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5.2 Mechanical Performance

ITEM	TEST CONDITION	REQUIREMENT	
		MAX	Min
<input type="checkbox"/> B Connector Insertion and Withdrawal	Insert and withdraw connectors at a rate of 0.5 inches per minute (12.7 mm per minute) (MIL-STD-1344A METHOD 2013.1)	3.0	0.5
		(per terminal, initial)	
<input type="checkbox"/> B Retention Force in Housing	Axial push out force on the terminal in the housing at a rate of .5 inches per minute (12.7 mm per minute) (MIL-STD-1344A METHOD 2010.1)	4 lbf Minimum	
Durability	Mate connectors up to 50 cycles at a maximum rate of 5 cycles per minute (MIL-STD-1344A METHOD 2016)	2.6 milliohm Max	
Vibration	Amplitude: .060" (1.5 mm) peak to peak Sweep: 10-55-10 Hertz in one minute Duration: 2 hours in each X-Y-Z axis (MIL-STD-1344A METHOD 2005.1) (TEST CONDITION I)	Appearance: No Damage Contact Resistance: 5.0 milliohm Maximum Discontinuity: 1 micro second Maximum	
Mechanical Shock	50 G's with three shocks in each X-Y-Z axis (MIL-STD-1344A METHOD 2004.1) (TEST CONDITION A)	Appearance: No Damage Contact Resistance: 6 milliohm Maximum Discontinuity: 1 micro second Maximum	

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3

DRWG. NO.
PSX-42002-0001

DRWG. NO.
PSX-42002-0001



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5.3 Environmental Performance

ITEM	TEST CONDITION	REQUIREMENT
Thermal Shock	Mate connectors exposed for 25 cycles of: Temperature Duration -55 +0/-3 C 30 minutes 85 +3/0 C 30 minutes (MIL-STD-1344A METHOD 1003.1) (TEST CONDITION A-1)	Appearance: No Damage Contact Resistance: 12.0 milliohm Maximum Dielectric strength: 2900 Vac for 1 minute
Humidity-temperature cycling	Mate connectors and expose to Temperature -humidity cycling between 25 c and 65 c at 95% RH, -10 c with humidity not controlled (MIL-STD-1344A METHOD 1002.1) (TYPE II)	Appearance: No Damage Contact Resistance: 6.00 milliohm Maximum Dielectric Strength: 5000 VAC for 1 minute Insulation Resistance: 100 Megohms Minimum
Salt spray	Expose unmated connector assemblies to a salt spray concentration of 5% at 35 C for 48 hours. (MIL-STD-1344A METHOD 1001.1)	7.00 milliohm Maximum Dielectric Strength: 5000 VAC for 1 minute
Thermal Aging	Mate connectors exposed for 96 hours at 105 +/- 2 C (MIL-STD-1344A METHOD 1005.1) (TEST CONDITION 4) (TEST TIME CONDITON A)	Appearance: No Damage Contact Resistance: 10 milliohm Maximum
<input type="checkbox"/> B Solderability	Solder Time: 3 +/- 0.5 seconds Solder Temperature: 230 +/- 5 C	95% of immersed area must show no voids, pin holes, etc.
<input type="checkbox"/> B <input type="checkbox"/> B Resistance to Solder Heats	Solder Time: 3 +/- 0.5 seconds Solder Temperature: 260 +/- 5 C	Appearance: No Damage

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4

