

Molex 53290-0380 PDF

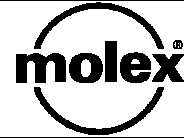
molex[®]

深圳创唯电子有限公司

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



PRODUCT SPECIFICATION



LANGUAGE
JAPANESE
ENGLISH

【1. 適用範囲 SCOPE】

本仕様書は、 _____ 殿 に納入する
_____ 2.0 mm ピッチ 基板対基板用 コネクタ _____ について規定する。
This specification covers the 2.0 mm PITCH BOARD TO BOARD CONNECTOR series.

【2. 製品名称及び型番 PRODUCT NAME AND PART NUMBER】

製品名称 Product Name		製品型番 Part Number
ハウジング アッセンブリ Housing Assembly	無鉛 LEAD FREE	5 2 4 1 8 - * * 1 0
5 2 4 1 8 - * * 1 0 ステック梱包 Stick Tape Package for 52418-**10	無鉛 LEAD FREE	5 2 4 1 8 - * * 9 0
ウェハー アッセンブリ (キンク付、トレー) Wafer Assembly (WITH KINK, TRAY)	無鉛 LEAD FREE	5 3 2 9 0 - * * 8 *
ウェハー アッセンブリ (キンク付、ポリ袋) Wafer Assembly (WITH KINK, POLYBAG)	無鉛 LEAD FREE	5 3 2 9 0 - * * 4 *
5 3 2 9 0 - * * 8 * ステック梱包 Stick Tape Package for 53290-**19	無鉛 LEAD FREE	5 3 2 9 0 - * * 7 0
ウェハー アッセンブリ (キンク無、トレー) Wafer Assembly (WITHOUT KINK, TRAY)	無鉛 LEAD FREE	5 3 2 9 0 - * * 6 0
ウェハー アッセンブリ (キンク無、ポリ袋) Wafer Assembly (WITHOUT KINK, POLYBAG)	無鉛 LEAD FREE	5 3 2 9 0 - * * 5 0
5 3 2 9 0 - * * 6 0 ステック梱包 Stick Tape Package for 53290-**60	無鉛 LEAD FREE	5 3 2 9 0 - * * 7 1

** : 極数 (添付図参照)

** : CKTS (Refer to the drawing)

REV.	A	B	C	D														
SHEET	1~8	1~8	1~8	1~9														
REVISE ON PC ONLY						TITLE: 2.0 PITCH BOARD TO BOARD CONNECTOR												
D	変更 REVISED J2005-2460 '05/02/23 N.AIDA					-LEAD FREE- 製品仕様書												
	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																	
REV.	DESCRIPTION																	
DESIGN CONTROL J				STATUS		WRITTEN BY: E.SUZUKI	CHECKED BY: K.TOJO	APPROVED BY: N.UKITA	DATE : YR/MO/DAY 2004/10/14									

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PRODUCT SPECIFICATION



LANGUAGE

JAPANESE
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【3. 定 格 RATINGS】

項 目 Item	規 格 Standard	
最大許容電圧 Rated Voltage (MAX.)	125 V	[AC (実効値 rms) / DC]
最大許容電流 Rated Current (MAX.)	1.5 A	
使用温度範囲 Ambient Temperature Range	-40°C ~ + 105°C ^{*1}	

*1: 通電による温度上昇分も含む。

*1: Including terminal temperature rise.

【4. 性 能 PERFORMANCE】

4-1. 電 氣 的 性 能 Electrical Performance

項 目 Item		条 件 Test Condition	規 格 Requirement
4-1-1	接 触 抵 抗 Contact Resistance	コネクタを嵌合させ、開放電圧 20mV以下、短絡電流 10mA にて測定する。 (JIS C5402 5.4) Mate connectors and measured by dry circuit, 20mV MAX., 10mA. (JIS C5402 5.4)	20 milliohm MAX.
4-1-2	絶 縁 抵 抗 Insulation Resistance	コネクタを嵌合させ、隣接するターミナル間及びターミナル、アース間に、DC 500V を印加し測定する。 (JIS C5402 5.2/MIL-STD-202 試験法 302) Mate connectors and apply 500V DC between adjacent terminal or ground. (JIS C5402 5.2/MIL-STD-202 Method 302)	1000 Megohm MIN.
4-1-3	耐 電 圧 Dielectric Strength	コネクタを嵌合させ、隣接するターミナル間及びターミナル、アース間に、AC(rms) 500V (実効値) を 1分間 印加する。 (JIS C5402 5.1/MIL-STD-202 試験法 301) Mate connectors and apply 500V AC(rms) for 1 minute between adjacent terminal or ground. (JIS C5402 5.1/MIL-STD-202 Method 301)	異状なきこと No Breakdown

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TITLE:

2.0 PITCH BOARD TO BOARD CONNECTOR

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製品仕様書

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4-2. 機械的性能 Mechanical Performance

項目 Item		条件 Test Condition	規格 Requirement
4-2-1	挿入力及び抜去力 Insertion and Withdrawal Force	毎分 25±3mm の速さで挿入、抜去を行う。 Insert and withdraw connectors at the speed rate of 25±3 mm/minute.	第 6 項参照 Refer to paragraph 6
4-2-2	ピン保持力 Pin Retention Force	毎分 25±3mm の速さでピンを軸方向に押す。 Apply axial pull out force at the speed rate of 25±3 mm/minute.	4.9N {0.5 kgf} MIN.

4-3. その他 Environmental Performance and Others

項目 Item		条件 Test Condition	規格 Requirement	
4-3-1	繰返し挿抜 Repeated Insertion / Withdrawal	1分間 10回 以下の速さで挿入、抜去を 30回 繰返す。 When mated up to 30cycles repeatedly by the rate of 10 cycles per minute.	接触抵抗 Contact Resistance	40 milliohm MAX.
4-3-2	温度上昇 Temperature Rise	コネクタを嵌合させ、最大許容電流を通電し、 コネクタの温度上昇分を測定する。 (UL 498) Connectors shall be mated and measure the temperature rise of contact, when the maximum rated current is flowed. (UL 498)	温度上昇 Temperature Rise	30 °C MAX.
4-3-3	耐振動性 Vibration	DC 1mA 通電状態にて、嵌合軸を含む互いに 垂直な 3方向 に掃引割合 10~55~10 Hz/分、 全振幅 1.5mm の振動を 各2時間 加える。 (JIS 60068-2-6/MIL-STD-202 試験法 201) Connectors shall be mated and subjected to the following vibration conditions, for a period of 2 hours in each of 3 mutually perpendicular axes, passing DC 1mA during test. Amplitude : 1.5mm P-P Frequency : 10~55~10 Hz Shall be traversed in 1 minute. (JIS 60068-2-6/MIL-STD-202 Method 201)	外観 Appearance	異状なきこと No Damage
			接触抵抗 Contact Resistance	40 milliohm MAX.
			瞬断 Discontinuity	1.0 microsecond MAX.

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項目 Item		条件 Test Condition	規格 Requirement	
4-3-4	耐衝撃性 Shock	DC 1mA 通電状態にて、嵌合軸を含む互いに垂直な6方向に 490m/s ² { 50G } の衝撃を各3回 加える。 (JIS C60068-2-27/MIL-STD-202 試験法 213) Connectors shall be mated and subjected to the following shock conditions. 3 shocks shall be applied along the 3 mutually perpendicular axes, with flowing DC 1mA current during the test. (Total of 18 shocks) Test pulse : half sine Peak value : 490m/s ² { 50G } Duration : 11m sec. (JIS C60068-2-27/MIL-STD-202 Method 213)	外観 Appearance	異常なきこと No Damage
			接触抵抗 Contact Resistance	40 milliohm MAX.
			瞬断 Discontinuity	1.0 microsecond MAX.
4-3-5	耐熱性 Heat Resistance	コネクタを嵌合させ、105±2°C の雰囲気中に96時間 放置後取り出し、1~2時間 室温に放置する。 (JIS C60068-2-2/MIL-STD-202 試験法 108) Connectors shall be mated and exposed to the conditions of 105±2°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at room ambient conditions of 1-2 hours, after which the specified measurement shall be performed. (JIS C60068-2-2MIL-STD-202 Method 108)	外観 Appearance	異常なきこと No Damage
			接触抵抗 Contact Resistance	40 milliohm MAX.
4-3-6	耐寒性 Cold Resistance	コネクタを嵌合させ、-40±3°C の雰囲気中に96時間 放置後取り出し、1~2時間 室温に放置する。 (JIS C60068-2-1) Connectors shall be mated and exposed to the conditions of -40±3°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at room ambient conditions of 1-2 hours, after which the specified measurement shall be performed. (JIS C60068-2-1)	外観 Appearance	異常なきこと No Damage
			接触抵抗 Contact Resistance	40 milliohm MAX.

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項目 Item		条件 Test Condition	規格 Requirement	
4-3-7	耐湿性 Humidity	コネクタを嵌合させ、40±2°C、相対湿度90~95%の雰囲気中に96時間放置後取り出し、1~2時間室温に放置する。 (JIS C60068-2-3/MIL-STD-202 試験法 103) Connectors shall be mated and exposed to the conditions of 40±2°C relative humidity 90~95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at room ambient conditions of 1-2 hours, after which the specified measurement shall be performed. (JIS C60068-2-3/MIL-STD-202 Method 103)	外観 Appearance	異常なきこと No Damage
			接触抵抗 Contact Resistance	40 milliohm MAX.
			耐電圧 Dielectric Strength	4-1-3項満足のこと Must meet 4-1-3
			絶縁抵抗 Insulation Resistance	100 Megohm MIN.
4-3-8	温度サイクル Temperature Cycling	コネクタを嵌合させ、-55°Cに30分、+105°Cに30分これを1サイクルとし、5サイクル繰返す。但し、温度移行時間は5分以内とする。試験後1~2時間室温に放置する。 (JIS C0025) Connectors shall be mated and subjected to the following conditions for 5 cycles. Upon completion of the exposure period the test specimens shall be conditioned at room ambient conditions of 1-2 hours, measurement shall be performed. (Transfer time shall be within 5 minutes) 1 cycles a) -55°C 30 minutes b) +105°C 30 minutes (JIS C0025)	外観 Appearance	異常なきこと No Damage
			接触抵抗 Contact Resistance	40 milliohm MAX.

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2.0 PITCH BOARD TO BOARD CONNECTOR

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項目 Item		条件 Test Condition	規格 Requirement	
4-3-12	半田耐熱性 Resistance to Soldering Heat	(ディップの場合) ターミナルまたはピンを本体の取付け基準面より 1.2mm迄、260±5°Cの半田に 5±0.5秒浸す。 <u>Soldering bath method</u> Into the molten solder held at 260±5°C up to 1.2mm from the bottom of the housing. The dwell time shall be 5±0.5 sec.	外 観 Appearance	端子ガタ、割れ等 異状なきこと No Damage
		(手半田時) 370~400°C の半田ゴテにて 最大5秒 加熱する。但し、端ピンに異常な加圧のないこと。 <u>Soldering iron method</u> Solder Time : 5 sec. MAX. Solder Temperature: 370~400°C However, without too much pressure to the terminal pin.		

():参考規格 Reference Standard
{ }:参考単位 Reference Unit

【5. 外観形状、寸法及び材質 PRODUCT SHAPE, DIMENSIONS AND MATERIALS】

図面参照 Refer to the drawing.

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【6. 挿入力及び抜去力 INSERTION / WITHDRAWAL FORCE】

極数 No. of CKT	単位 UNIT	挿入力 (最大値) Insertion Force (MAX.)			抜去力 (最小値) Withdrawal Force (MIN.)		
		初回 1st	6回目 6th	30回目 30th	初回 1st	6回目 6th	30回目 30th
3	N	24.5	19.6	19.6	11.8	9.8	9.8
	Kgf	{2.50}	{2.00}	{2.00}	{1.20}	{1.00}	{1.00}
4	N	28.8	21.9	21.9	12.6	10.4	10.4
	Kgf	{2.94}	{2.24}	{2.24}	{1.28}	{1.06}	{1.06}
5	N	33.1	24.2	24.2	13.3	11.0	11.0
	Kgf	{3.38}	{2.47}	{2.47}	{1.35}	{1.12}	{1.12}
6	N	37.4	26.5	26.5	14.0	11.6	11.6
	Kgf	{3.82}	{2.71}	{2.71}	{1.43}	{1.18}	{1.18}
7	N	41.7	28.8	28.8	14.8	12.2	12.2
	Kgf	{4.26}	{2.94}	{2.94}	{1.50}	{1.24}	{1.24}
8	N	46.1	31.1	31.1	15.5	12.7	12.7
	Kgf	{4.71}	{3.18}	{3.18}	{1.58}	{1.29}	{1.29}
9	N	50.5	33.4	33.4	16.3	13.3	13.3
	Kgf	{5.15}	{3.41}	{3.41}	{1.66}	{1.35}	{1.35}
10	N	54.8	35.6	35.6	17.0	13.9	13.9
	Kgf	{5.59}	{3.64}	{3.64}	{1.73}	{1.41}	{1.41}
11	N	59.1	38.0	38.0	17.8	14.5	14.5
	Kgf	{6.03}	{3.88}	{3.88}	{1.81}	{1.47}	{1.47}
12	N	63.4	40.4	40.4	18.5	15.0	15.0
	Kgf	{6.47}	{4.12}	{4.12}	{1.88}	{1.53}	{1.53}
13	N	67.7	42.6	42.6	19.3	15.6	15.6
	Kgf	{6.91}	{4.35}	{4.35}	{1.96}	{1.59}	{1.59}
14	N	72.0	45.0	45.0	20.0	16.2	16.2
	Kgf	{7.35}	{4.59}	{4.59}	{2.04}	{1.65}	{1.65}
15	N	76.3	47.2	47.2	20.7	16.8	16.8
	Kgf	{7.79}	{4.82}	{4.82}	{2.11}	{1.71}	{1.71}
16	N	80.8	49.6	49.6	21.5	17.3	17.3
	Kgf	{8.24}	{5.06}	{5.06}	{2.19}	{1.76}	{1.76}
17	N	85.1	51.8	51.8	22.2	17.9	17.9
	Kgf	{8.68}	{5.29}	{5.29}	{2.26}	{1.82}	{1.82}
18	N	89.4	54.2	54.2	23.0	18.5	18.5
	Kgf	{9.12}	{5.53}	{5.53}	{2.34}	{1.88}	{1.88}
19	N	93.7	56.4	56.4	23.8	19.1	19.1
	Kgf	{9.56}	{5.76}	{5.76}	{2.42}	{1.94}	{1.94}
20	N	98.0	58.8	58.8	24.6	19.7	19.7
	Kgf	{10.00}	{6.00}	{6.00}	{2.50}	{2.00}	{2.00}

REVISE ON PC ONLY		TITLE: 2.0 PITCH BOARD TO BOARD CONNECTOR	
D	SEE SHEET 1 OF 9	-LEAD FREE- 製品仕様書	
	REV.	DESCRIPTION	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
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1. 製品名称／PRODUCT NAME : 2.0 B TO B CONN. WAFER ASS'Y
 製品番号／PART NUMBER : 53290-**-80
 (**は極数を示す)
 (** IS CIRCUITS SIZE)

2. 標準梱包数／STANDARD PACKAGING QUANTITY

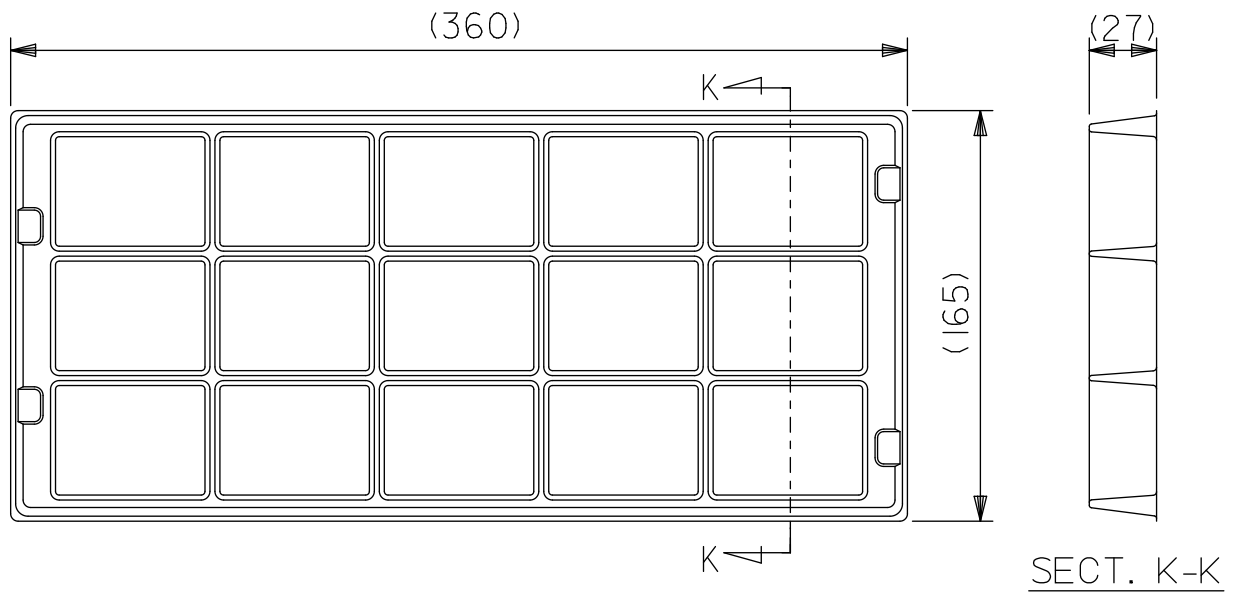
極数 CKT. SIZE	プラスチックトレイ(15升) PLASTIC TRAY (15 POCKETS)	内装カートン PRIMARY CARTON		外装カートン SHIPPING CARTON
	1トレイ製品数 QTY. IN ONE TRAY	トレイ枚数 NUMBER OF TRAYS	製品数 QUANTITY	製品数(内装カートン×4) QUANTITY (PRIMARY CARTON X4)
3	1,000	3	3,000	12,000
4	1,000	3	3,000	12,000
5	1,000	3	3,000	12,000
6	1,000	3	3,000	12,000
7	500	3	1,500	6,000
8	500	3	1,500	6,000
9	500	3	1,500	6,000
10	500	3	1,500	6,000
11	500	3	1,500	6,000
12	500	3	1,500	6,000
13	300	3	900	3,600
14	300	3	900	3,600
15	300	3	900	3,600

REV.	A						
SHEET	1~3						
REVISE ON PC ONLY			TITLE:				
A	RELEASED 106207 2016/06/29 Y.TOKUZONO		53290 梱包仕様書 SALES PACKAGING SPEC. FOR 53290				
	THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
REV.	DESCRIPTION						
DESIGN CONTROL J		STATUS	WRITTEN BY: YTOKUZONO	CHECKED BY: T.HARUYAMA	APPROVED BY: Y.ITO	DATE: 2016/06/29	
DOCUMENT NUMBER 532909200			DOC. TYPE PS	DOC. PART 201	CUSTOMER GENERAL		SHEET 1 OF 3

極数 CKT. SIZE	プラスチックトレイ(15升) PLASTIC TRAY (15 POCKETS)	内装カートン PRIMARY CARTON		外装カートン SHIPPING CARTON
	1トレイ製品数 QTY. IN ONE TRAY	トレイ枚数 NUMBER OF TRAYS	製品数 QUANTITY	製品数(内装カートン×4) QUANTITY (PRIMARY CARTON X4)
16	300	3	900	3,600
17	300	3	900	3,600
18	300	3	900	3,600
19	300	3	900	3,600
20	300	3	900	3,600

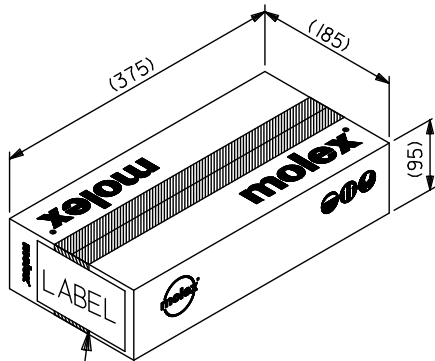
3. プラスチックトレイ参考寸法 / TRAY DIMENSIONS (REFERENCE PURPOSE ONLY)

単位 / UNIT: mm



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A	SEE SHEET 1 OF 3	5 3 2 9 0 梱包仕様書 SALES PACKAGING SPEC. FOR 53290			
	REV.	DESCRIPTION	<small>THIS DOCUMENT CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</small>		
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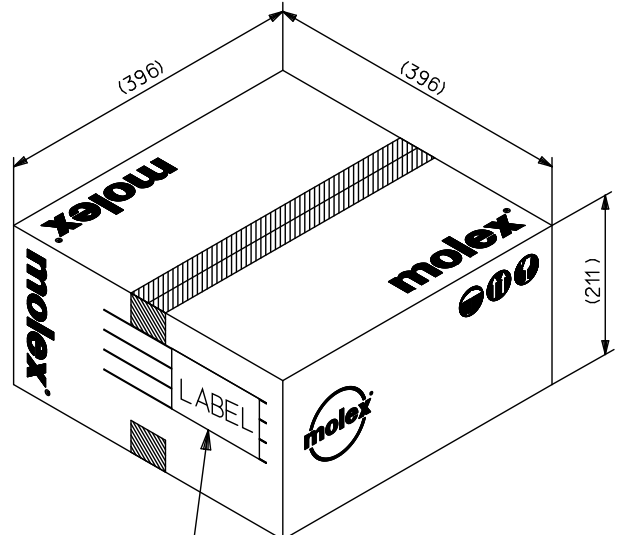
4. カートン外形参考寸法 / CARTON OUTER DIMENSIONS (REFERENCE PURPOSE ONLY) 単位 / UNIT: mm



現品票
PART IDENTIFICATION LABEL

(製品型番, 数量, ロットNO. 表示)
INDICATION OF PART No., QUANTITY, LOT No.

内装カートン
PRIMARY CARTON



カートンラベル
CARTON LABEL

(製品型番, 数量, ロットNO. 表示)
INDICATION OF PART No., QUANTITY, LOT No.

外装カートン
SHIPPING CARTON

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