

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0702871204](#)  
**Status:** **Active**  
**Description:** 2.54mm (.100") Pitch C-Grid® Header, Breakaway, Dual Row, Vertical, with Retention Pin, 20 Circuits, 6.10mm (.240") Mating Pin Length, 0.76µm (30µ") Gold (Au) Selective Plating

**Documents:**

<a href="#">3D Model</a>	<a href="#">Product Specification PS-70280 (PDF)</a>
<a href="#">Drawing (PDF)</a>	<a href="#">RoHS Certificate of Compliance (PDF)</a>
<a href="#">Packaging Specification (PDF)</a>	

**Agency Certification**

CSA	LR19980
UL	E29179

**General**

Product Family	PCB Headers
Series	<a href="#">70287</a>
Application	Board-to-Board, Wire-to-Board
Product Name	C-Grid®

**Physical**

Breakaway	Yes
Circuits (Loaded)	20
Circuits (maximum)	20
Color - Resin	Black
Durability (mating cycles max)	25
First Mate / Last Break	No
Flammability	94V-0
Glow-Wire Compliant	No
Guide to Mating Part	No
Keying to Mating Part	N/A
Lock to Mating Part	None
Material - Metal	Brass
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Vertical
PC Tail Length (in)	0.125 In
PC Tail Length (mm)	3.18 mm
PCB Locator	No
PCB Retention	None
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.57 mm
Packaging Type	Bag
Pitch - Mating Interface (in)	0.100 In
Pitch - Mating Interface (mm)	2.54 mm
Pitch - Term. Interface (in)	0.100 In
Pitch - Term. Interface (mm)	2.54 mm
Plating min: Mating (µin)	32.000
Plating min: Mating (µm)	0.80
Plating min: Termination (µin)	80.000
Plating min: Termination (µm)	2.00
Polarized to Mating Part	No
Polarized to PCB	No



*Series  
image - Reference only*

**EU RoHS**

**ELV and RoHS  
Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free  
Status**  
**Not Reviewed**

**China RoHS**



**Need more information on product  
environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[70287Series](#)

**Mates With**

7859 Shunt, C-Grid Receptacles, SL™  
 Crimp, FFC and IDT Housing

Shrouded	No
Stackable	Yes
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +120°C
Termination Interface: Style	Through Hole

**Electrical**

Current - Maximum per Contact	3A
Voltage - Maximum	250V DC

**Solder Process Data**

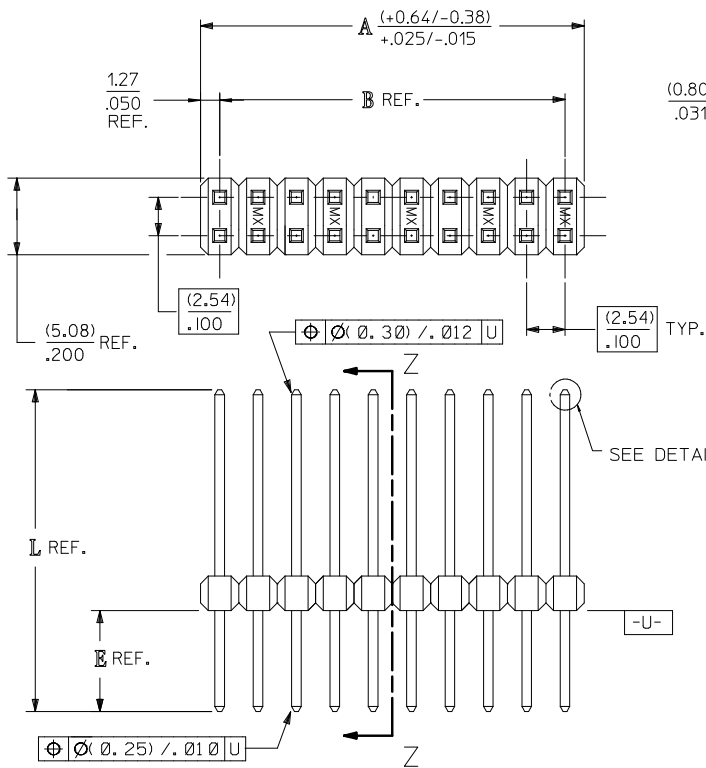
Duration at Max. Process Temperature (seconds)	5
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

**Material Info****Reference - Drawing Numbers**

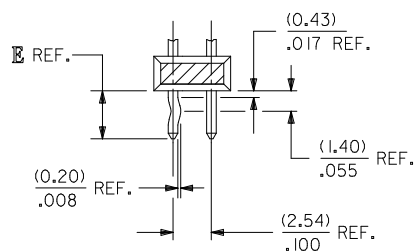
Product Specification	PS-70280
Sales Drawing	SD-70287-004

This document was generated on 04/12/2010

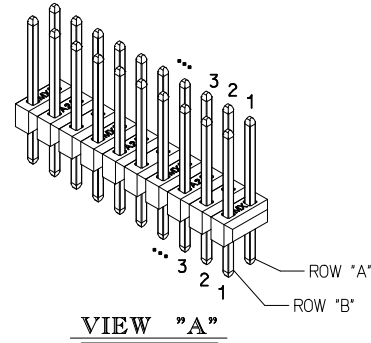
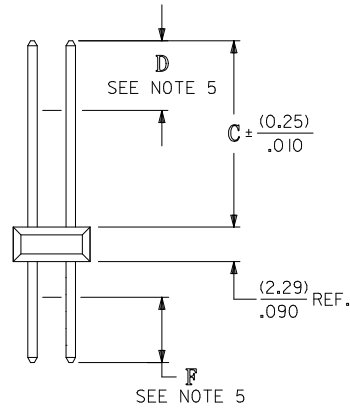
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**DETAIL "Y"**  
SCALE 30:1



**SECTION Z-Z - RETENTION PIN DETAIL**  
2 CONTACTS LOCATED ON CENTER OF SAME ROW  
(SEE NOTE 6)



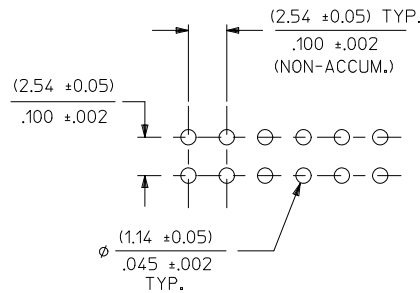
**VIEW "A"**

**NOTES:**

- MATERIAL: WAFER - GLASS FILLED LIQUID CRYSTAL POLYMER, UL94V-0, COLOR: BLACK  
PIN - COPPER ALLOY
- FINISH: (TIN) OVERALL TIN: (0.00381)/.000150 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.  
(15 GOLD) SELECT GOLD: (0.00038)/.000015 MIN., SELECT TIN: (0.00191)/.000075 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.  
(30 GOLD) SELECT GOLD: (0.00076)/.000030 MIN., SELECT TIN: (0.00191)/.000075 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
- PRODUCT SPECIFICATION: PS-70280
- PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES)  
PARTS TO BE PACKAGED PER PK-70873-0353.
- MEASURE POINT FOR PLATING THICKNESS. DIMENSION D IS ALSO THE MEASURE POINT FOR PIN WIDTH.
- RETENTIVE TAIL LOCATIONS (SEE VIEW "A")

NUMBER OF CIRCUITS IN ROW B	RETENTIVE TAIL LOCATIONS
EVEN NUMBER	2 PINS IN THE MIDDLE OF ROW B
ODD NUMBER	PIN IN THE CENTER OF ROW B AND ONE OTHER PIN IN ROW B ON EITHER SIDE OF THE CENTER PIN

- PIN PUSHOUT FORCE: 3 LBS. MIN. (IN EITHER DIRECTION)
- FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE IS SHOWN.
- PINS MUST MEET SOLDERABILITY SPEC. SMES-152, EXCEPT VOIDS ARE PERMISSIBLE AT BANDOLIER PIN FAYING SURFACE. (APPROXIMATELY (0.64)/.025 LNG X (0.15)/.006 WIDE AT 2 LOCATIONS)
- PARTS CONFORM TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.



**PCB LAYOUT: COMPONENT SIDE**  
TYPICAL PCB THICKNESS: (1.57)/.062

CKT. SIZE	DIM. A REF.		DIM. B REF.	
	(MM)	INCH	(MM)	INCH
4	(5.08)	.200	(2.54)	.100
6	(7.62)	.300	(5.08)	.200
8	(10.16)	.400	(7.62)	.300
10	(12.70)	.500	(10.16)	.400
12	(15.24)	.600	(12.70)	.500
14	(17.78)	.700	(15.24)	.600
16	(20.32)	.800	(17.78)	.700
18	(22.86)	.900	(20.32)	.800
20	(25.40)	1.000	(22.86)	.900
22	(27.94)	1.100	(25.40)	1.000
24	(30.48)	1.200	(27.94)	1.100
26	(33.02)	1.300	(30.48)	1.200
28	(35.56)	1.400	(33.02)	1.300
30	(38.10)	1.500	(35.56)	1.400
32	(40.64)	1.600	(38.10)	1.500
34	(43.18)	1.700	(40.64)	1.600
36	(45.72)	1.800	(43.18)	1.700
38	(48.26)	1.900	(45.72)	1.800
40	(50.80)	2.000	(48.26)	1.900
42	(53.34)	2.100	(50.80)	2.000
44	(55.88)	2.200	(53.34)	2.100
46	(58.42)	2.300	(55.88)	2.200
48	(60.96)	2.400	(58.42)	2.300
50	(63.50)	2.500	(60.96)	2.400
52	(66.04)	2.600	(63.50)	2.500
54	(68.58)	2.700	(66.04)	2.600
56	(71.12)	2.800	(68.58)	2.700
58	(73.66)	2.900	(71.12)	2.800
60	(76.20)	3.000	(73.66)	2.900
62	(78.74)	3.100	(76.20)	3.000
64	(81.28)	3.200	(78.74)	3.100
66	(83.82)	3.300	(81.28)	3.200
68	(86.36)	3.400	(83.82)	3.300
70	(88.90)	3.500	(86.36)	3.400
72	(91.44)	3.600	(88.90)	3.500
74	(93.98)	3.700	(91.44)	3.600
76	(96.52)	3.800	(93.98)	3.700
78	(99.06)	3.900	(96.52)	3.800
80	(101.60)	4.000	(99.06)	3.900
82	(104.14)	4.100	(101.60)	4.000
84	(106.68)	4.200	(104.14)	4.100
86	(109.22)	4.300	(106.68)	4.200
88	(111.76)	4.400	(109.22)	4.300
90	(114.30)	4.500	(111.76)	4.400
92	(116.84)	4.600	(114.30)	4.500
94	(119.38)	4.700	(116.84)	4.600
96	(121.92)	4.800	(119.38)	4.700
98	(124.46)	4.900	(121.92)	4.800
100	(127.00)	5.000	(124.46)	4.900

INITIAL RELEASE EC NO: UCP2010-0011 DRWN:MKIPPER 2010/02/12 CHKD:JBELL 2010/02/15 APPR:FSMITH 2010/03/02	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM/IN	SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION						
		<table border="1"> <tr><th>mm</th><th>INCH</th></tr> <tr><td>4 PLACES ± ---</td><td>± ---</td></tr> <tr><td>3 PLACES ± ---</td><td>± .005</td></tr> <tr><td>2 PLACES ± 0.13</td><td>± .01</td></tr> <tr><td>1 PLACE ± 0.25</td><td>± ---</td></tr> </table>	mm	INCH	4 PLACES ± ---	± ---	3 PLACES ± ---	± .005	2 PLACES ± 0.13	± .01	1 PLACE ± 0.25	± ---
mm	INCH											
4 PLACES ± ---	± ---											
3 PLACES ± ---	± .005											
2 PLACES ± 0.13	± .01											
1 PLACE ± 0.25	± ---											
SHT. REV. 2-* A 1 A	MATERIAL NO. SEE CHART	APPROVED BY FSMITH DATE 2009/11/02	MOLEX INCORPORATED	DOCUMENT NO. SD-70287-004	SHEET NO. 1 OF *							

DRAFT WHERE APPLICABLE  
MUST REMAIN  
WITHIN DIMENSIONS

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

ENG. NO: A-70287-1000 / 1048			
DIM. C		(6.10) / .240	
DIM. E (REF.)		(3.18) / .125	
DIM. L (REF.)		(11.56) / .455	
MATING SIDE PLATING		TIN	
DIM. D (MEASURE PT.)		(2.54) / .100	
P.C. BOARD SIDE PLATING		TIN	
DIM. F (MEASURE PT.)		(1.27) / .050	
RETENTIVE PIN LOCATION		SEE NOTE 6, SHEET 1	
PACKAGING		BULK - PK-70873-0353	
CKTS	MATERIAL NUMBER	CKTS	MATERIAL NUMBER
04	70287-1000	54	70287-1025
06	70287-1001	56	70287-1026
08	70287-1002	58	70287-1027
10	70287-1003	60	70287-1028
12	70287-1004	62	70287-1029
14	70287-1005	64	70287-1030
16	70287-1006	66	70287-1031
18	70287-1007	68	70287-1032
20	70287-1008	70	70287-1033
22	70287-1009	72	70287-1034
24	70287-1010	74	70287-1035
26	70287-1011	76	70287-1036
28	70287-1012	78	70287-1037
30	70287-1013	80	70287-1038
32	70287-1014	82	70287-1039
34	70287-1015	84	70287-1040
36	70287-1016	86	70287-1041
38	70287-1017	88	70287-1042
40	70287-1018	90	70287-1043
42	70287-1019	92	70287-1044
44	70287-1020	94	70287-1045
46	70287-1021	96	70287-1046
48	70287-1022	98	70287-1047
50	70287-1023	100	70287-1048
52	70287-1024		

ENG. NO: A-70287-1098 / 1146			
DIM. C		(6.10) / .240	
DIM. E (REF.)		(3.18) / .125	
DIM. L (REF.)		(11.56) / .455	
MATING SIDE PLATING		15 GOLD	
DIM. D (MEASURE PT.)		(2.54) / .100	
P.C. BOARD SIDE PLATING		TIN	
DIM. F (MEASURE PT.)		(1.27) / .050	
RETENTIVE PIN LOCATION		SEE NOTE 6, SHEET 1	
PACKAGING		BULK - PK-70873-0353	
CKTS	MATERIAL NUMBER	CKTS	MATERIAL NUMBER
04	70287-1098	54	70287-1123
06	70287-1099	56	70287-1124
08	70287-1100	58	70287-1125
10	70287-1101	60	70287-1126
12	70287-1102	62	70287-1127
14	70287-1103	64	70287-1128
16	70287-1104	66	70287-1129
18	70287-1105	68	70287-1130
20	70287-1106	70	70287-1131
22	70287-1107	72	70287-1132
24	70287-1108	74	70287-1133
26	70287-1109	76	70287-1134
28	70287-1110	78	70287-1135
30	70287-1111	80	70287-1136
32	70287-1112	82	70287-1137
34	70287-1113	84	70287-1138
36	70287-1114	86	70287-1139
38	70287-1115	88	70287-1140
40	70287-1116	90	70287-1141
42	70287-1117	92	70287-1142
44	70287-1118	94	70287-1143
46	70287-1119	96	70287-1144
48	70287-1120	98	70287-1145
50	70287-1121	100	70287-1146
52	70287-1122		

<b>A</b>	REV:	ECR/ECN INFORMATION	TITLE:	SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS	SHEET No.
		EC No: <b>UCP2010-0011</b>			<b>- 2 -</b>
		DATE: <b>3/2/2010</b>			
DOCUMENT NUMBER:		CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:	
<b>SD-70287-004</b>		<b>MKIPPER</b>	<b>JBELL</b>	<b>FSMITH</b>	

ENG. NO: A-70287-1196 / 1244

DIM. C		(6.10) / .240	
DIM. E (REF.)		(3.18) / .125	
DIM. L (REF.)		(11.56) / .455	
MATING SIDE PLATING		30 GOLD	
DIM. D (MEASURE PT.)		(2.54) / .100	
P.C. BOARD SIDE PLATING		TIN	
DIM. F (MEASURE PT.)		(1.27) / .050	
RETENTIVE PIN LOCATION		SEE NOTE 6, SHEET 1	
PACKAGING		BULK - PK-70873-0353	
CKTS	MATERIAL NUMBER	CKTS	MATERIAL NUMBER
04	70287-1196	54	70287-1221
06	70287-1197	56	70287-1222
08	70287-1198	58	70287-1223
10	70287-1199	60	70287-1224
12	70287-1200	62	70287-1225
14	70287-1201	64	70287-1226
16	70287-1202	66	70287-1227
18	70287-1203	68	70287-1228
20	70287-1204	70	70287-1229
22	70287-1205	72	70287-1230
24	70287-1206	74	70287-1231
26	70287-1207	76	70287-1232
28	70287-1208	78	70287-1233
30	70287-1209	80	70287-1234
32	70287-1210	82	70287-1235
34	70287-1211	84	70287-1236
36	70287-1212	86	70287-1237
38	70287-1213	88	70287-1238
40	70287-1214	90	70287-1239
42	70287-1215	92	70287-1240
44	70287-1216	94	70287-1241
46	70287-1217	96	70287-1242
48	70287-1218	98	70287-1243
50	70287-1219	100	70287-1244
52	70287-1220		

ENG. NO: A-70287-1294

DIM. C		(6.10) / .240	
DIM. E (REF.)		(3.18) / .125	
DIM. L (REF.)		(11.56) / .455	
MATING SIDE PLATING		TIN	
DIM. D (MEASURE PT.)		(2.54) / .100	
P.C. BOARD SIDE PLATING		TIN	
DIM. F (MEASURE PT.)		(1.27) / .050	
RETENTIVE PIN LOCATION		ROW B - CKTS 1, 5 (SEE NOTE 6, SHEET 1)	
PACKAGING		BULK - PK-70873-0353	
		VOID PIN LOCATION	
CKTS	MATERIAL NUMBER	ROW	LOCATION
10	70287-1294	A	2, 3
		B	2, 3

REV: <b>A</b>	ECR/ECN INFORMATION	TITLE: <b>SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS</b>	SHEET No.
	EC No: <b>UCP2010-0011</b>		<b>- 3 -</b>
	DATE: <b>3/2/2010</b>		
DOCUMENT NUMBER: <b>SD-70287-004</b>	CREATED / REVISED BY: <b>MKIPPER</b>	CHECKED BY: <b>JBELL</b>	APPROVED BY: <b>FSMITH</b>

ENG. NO: A-70287-1295

DIM. C	(5.84) / .230		
DIM. E (REF.)	(2.97) / .117		
DIM. L (REF.)	(11.10) / .437		
MATING SIDE PLATING	15 GOLD		
DIM. D (MEASURE PT.)	(2.54) / .100		
P.C. BOARD SIDE PLATING	TIN		
DIM. F (MEASURE PT.)	(1.27) / .050		
RETENTIVE PIN LOCATION	ROW B - CKTS 3, 4 (SEE NOTE 6, SHEET 1)		
PACKAGING	BULK - PK-70873-0353		
VOID PIN LOCATION			
CKTS	MATERIAL NUMBER	ROW	LOCATION
10	70287-1295	A	1

REV: <b>A</b>	ECR/ECN INFORMATION	TITLE: SALES ASS'Y – HIGH TEMP. DUAL ROW, .025" SQ PINS .100" GRID W/ RET. PINS	SHEET No. <b>- 4 -</b>
	EC No: <b>UCP2010-0011</b> DATE: <b>3/2/2010</b>		
DOCUMENT NUMBER: <b>SD-70287-004</b>	CREATED / REVISED BY: <b>MKIPPER</b>	CHECKED BY: <b>JBELL</b>	APPROVED BY: <b>FSMITH</b>