

Series image - Reference only

EU RoHS

China RoHS

ELV and RoHS Compliant



Duration at Max. Process Temperature (seconds)

5

Lead-free Process Capability

SMC & Wave Capable (TH only)

Max. Cycles at Max. Process Temperature

1

Process Temperature max. C

260

Search Parts in this Series

[70280 Series](#)

Part Number: 0010897162

Status: Active

Description: 2.54mm (.100") Pitch C-Grid Breakaway Header, Dual Row, Vertical, High Temperature, 16 Circuits, 0.38 μ m (15 μ) Gold (Au) Selective Plating, Tin (Sn) PC Tail Plating, 2.72mm (.107") PC Tail

Documents:

- [Drawing \(PDF\)](#)
- [Product Specification PS-70280 \(PDF\)](#)
- [3D Model](#)
- [Related Catalog Page \(PDF\)](#)

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Part Detail: [\(show all\)](#)

o **General**

o **Physical**

o **Electrical**

o **Material Info**

o **Reference - Drawing Numbers**

General

Product Family	PCB Headers
Series	<u>70280</u>
Application	Board-to-Board
Application	Wire-to-Board
Product Name	C-Grid®

Physical

Breakaway	Yes
Circuits (Loaded)	16
Circuits (maximum)	16
Color - Resin	Black
Durability (mating cycles) min	50 cycles
First Mate / Last Break	No
Flammability	94V-0
Guide to Mating Part	No
Keying to mating part	None
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)	0.110 In
PC Tail Length (mm)	2.79 mm
PCB Locator	No
PCB Retention	None
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Bag
Pitch - Mating Interface (in)	0.100 In
Pitch - Mating Interface (mm)	2.54 mm
Plating min: Mating (uin)	15.2
Plating min: Mating (um)	0.38

Plating min: Termination (uin)	80
Plating min: Termination (um)	2
Polarized to Mating Part	No
Polarized to PCB	No
Robotic Placement	None
Shrouded	No
Stackable	Yes
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole

Electrical

CSA	LR19980
Current - Maximum	3.000 Amp
UL	E29179
Voltage - Maximum	250V

Material Info

Old Part Number	70280-0048
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Reference - Drawing Numbers

Product Specification	PS-70280
Sales Drawing	SDA-70280-0001-4000

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	(101.06)	4.000	(99.06)	3.900
82	(104.14)	4.100	(101.06)	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

NOTES:

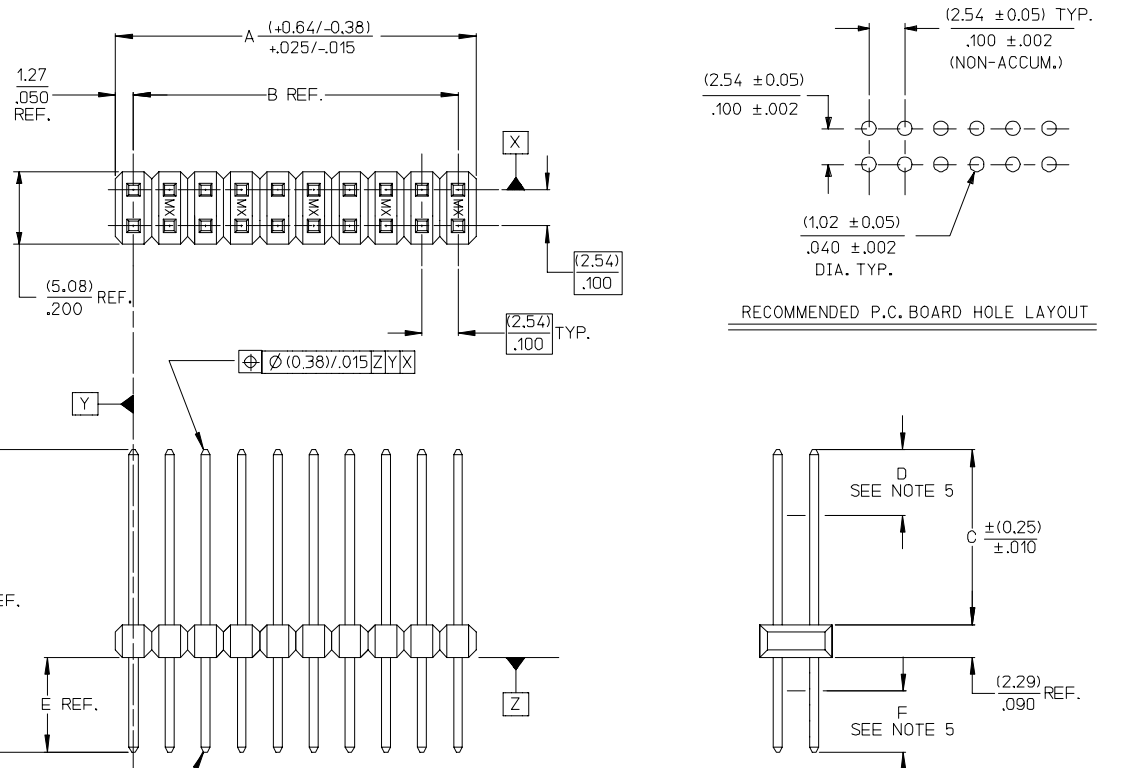
- MATERIAL:**
PIN: COPPER ALLOY
WAFER: GLASS FILLED LCP (LIQUID CRYSTAL POLYMER, UL 94V-0, COLOR: BLACK.
- FINISH:**
TIN = (0.00380)/.000150 MINIMUM TIN PLATE OVER (0.00127)/.000050 MINIMUM NICKEL PLATE.
15 GOLD = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA, (0.00190)/.000075 MINIMUM TIN PLATE IN SELECT AREA.
30 GOLD = (0.00076)/.000030 MINIMUM GOLD PLATE IN SELECT AREA, (0.00190)/.000075 MINIMUM TIN PLATE IN SELECT AREA.
GT15 = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA, (0.00254)/.000100 MINIMUM TIN PLATE IN SELECT AREA, OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.

- PRODUCT SPECIFICATION: NONE
- PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES) BULK PACK PER PK-70873-0353.
- MEASURE POINT FOR PLATING THICKNESS.
- FOR ASSEMBLIES WITH VOIDED PINS, REFER TO DRAWING NO. SDA-70280-5001-9999.
- PIN PUSHOUT FORCE: 3 POUNDS MINIMUM IN EITHER DIRECTION.
- FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE IS SHOWN.
- PINS MEET SOLDERABILITY SPEC SMES-152. ABSENCE OF PLATING PERMISSIBLE AT BANDOLIER PIN FAYING SURFACE. (APPROXIMATELY (0.64)/.025 INCH LONG BY (0.15)/.006 INCH WIDE AT 2 LOCATIONS)
- PARTS CONFORM TO CLASS B OF COSMETIC SPECIFICATION PS-45499-002

* THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD PLATING.

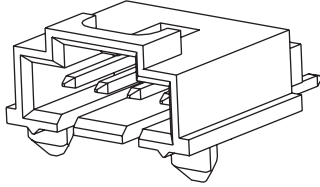
ADD P/N 70280-1218 EC NO: UCP2008-0305 DRAWN:ADER 2007/08/13 CHFKD:IBELL 2007/08/14 APPR:FSM TH 2007/08/15 G5	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ±.010 ±.004 3 PLACES ±.013 ±.005 2 PLACES ±.015 ±.01 1 PLACE ±.025 ±.01 ANGULAR ±1/2°		DIMENSION STYLE MM/IN	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION		
		DRAWN BY DATE SMR 04/19/1993		CHECKED BY DATE		TITLE SALES ASSY-HIGH TEMP. DUAL ROW WAFER W/BREAK-OFF OPT. .025 SQ PINS			
		APPROVED BY DATE SMR 04/19/1993		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SDA-70280-0001-4000		1 OF 8	

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



2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70634
Single Row, .120" Pocket
Right Angle, Low Profile
SMT with Tri Peg



Features and Benefits

- Sizes 2 to 25 circuits
- Press-fit peg maximizes retention to PCB during soldering process
- Locking crown secures positive latch to header
- Standoffs minimize flux interference

Reference Information

Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates with: 70066G, 70066N, 70400G and 70430G
Designed in: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion force to PCB: 44.48N (10 lbs.)
Durability: Tin — 25 cycles; Gold — 50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Operating Temperature: -40 to +105°C

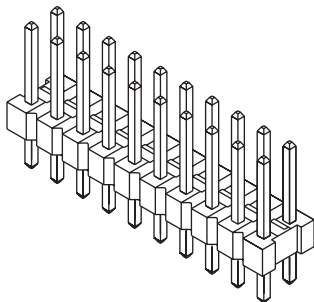
Circuits	Order No.			Lead-free
	Tin	15µm Gold	30µm Gold	
2	15-91-3024	15-91-2025	15-91-3023	Yes
3	15-91-3034	15-91-2035	15-91-3033	
4	15-91-3044	15-91-2045	15-91-3043	
5	15-91-3054	15-91-2055	15-91-3053	
6	15-91-3064	15-91-2065	15-91-3063	
7	15-91-3074	15-91-2075	15-91-3073	
8	15-91-3084	15-91-2085	15-91-3083	
9	15-91-3094	15-91-2095	15-91-3093	
10	15-91-3104	15-91-2105	15-91-3103	
11	15-91-3114	15-91-2115	15-91-3113	
12	15-91-3124	15-91-2125	15-91-3123	
13	15-91-3134	15-91-2135	15-91-3133	

Circuits	Order No.			Lead-free
	Tin	15µm Gold	30µm Gold	
14	15-91-3144	15-91-2145	15-91-3143	Yes
15	15-91-3154	15-91-2155	15-91-3153	
16	15-91-3164	15-91-2165	15-91-3163	
17	15-91-3174	15-91-2175	15-91-3173	
18	15-91-3184	15-91-2185	15-91-3183	
19	15-91-3194	15-91-2195	15-91-3193	
20	15-91-3204	15-91-2205	15-91-3203	
21	15-91-3214	15-91-2215	15-91-3213	
22	15-91-3224	15-91-2225	15-91-3223	
23	15-91-3234	15-91-2235	15-91-3233	
24	15-91-3244	15-91-2245	15-91-3243	
25	15-91-3254	15-91-2255	15-91-3253	

www.molex.com/product/sl_products.html

2.54mm (.100") Pitch C-Grid® Breakaway Header

70280
Dual Row, Vertical
High-Temperature



Features and Benefits

- Sizes 4 to 100 circuits
- Stackable side-to-side and end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

Reference Information

Product Specifications: PS-70280
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp, FFC and IDT Housings
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Pin Retention to Header: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Operating Temperature: -40 to +105°C

Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.	Lead-free
150µm Tin	10-89-7XX1	Yes
15µm Gold	10-89-7XX2	
30µm Gold	10-89-7XX0	

Replace XX with no. of circuits, 04-80 (even only). See sales drawing for 82-100.