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Part Number: [0873811663](#)
Status: **Active**
Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 0.76µm (30µ") Gold (Au) Plating, with Cap, without Locating Pegs, 16 Circuits, Lead-free

Documents:

3D Model	Product Specification PS-87380-002 (PDF)
Drawing (PDF)	RoHS Certificate of Compliance (PDF)

Agency Certification

CSA	LR19980
UL	E29179

General

Product Family	PCB Receptacles
Series	87381
Application	Board-to-Board
Comments	With Cap
Product Literature Order No	987650-1991
Product Name	Milli-Grid™

Physical

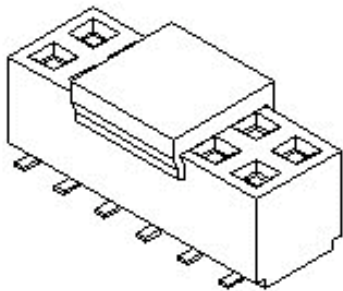
Circuits (Loaded)	16
Circuits (maximum)	16
Color - Resin	Black
Durability (mating cycles max)	25
Flammability	94V-0
Glow-Wire Compliant	No
Lock to Mating Part	None
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin-Lead
Material - Resin	High Temperature Thermoplastic
Number of Rows	2
Orientation	Vertical
PCB Locator	No
PCB Retention	None
Packaging Type	Tube
Pitch - Mating Interface (in)	0.079 In
Pitch - Mating Interface (mm)	2.00 mm
Pitch - Term. Interface (in)	0.079 In
Pitch - Term. Interface (mm)	2.00 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.76
Plating min: Termination (µin)	50
Plating min: Termination (µm)	1.27
Polarized to PCB	No
Surface Mount Compatible (SMC)	N/A
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Surface Mount

Electrical

Current - Maximum per Contact	1.9A
Voltage - Maximum	125V

Solder Process Data

Lead-free Process Capability	Reflow Capable (SMT only)
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Series

image - Reference only

EU RoHS

**ELV and RoHS
Compliant**
**REACH SVHC
Contains SVHC: No**
**Halogen-Free
Status**

China RoHS



Not Reviewed

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

Email 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

[87381Series](#)

Mates With

[87758](#) Vertical, Through Hole, Stackable
PCB Header, [87759](#) Vertical, Surface
Mount, Stackable PCB Header, [87760](#)
Right Angle, Through Hole, Stackable PCB
Header, [87831](#) Vertical, Through Hole PCB
Header, [87832](#) Vertical, Surface Mount PCB

Process Temperature max. C	245
Material Info	
Reference - Drawing Numbers	
Product Specification	PS-87380-002
Sales Drawing	SD-87381-**6*

This document was generated on 03/18/2010

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F

E

D

C

B

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10

9

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7

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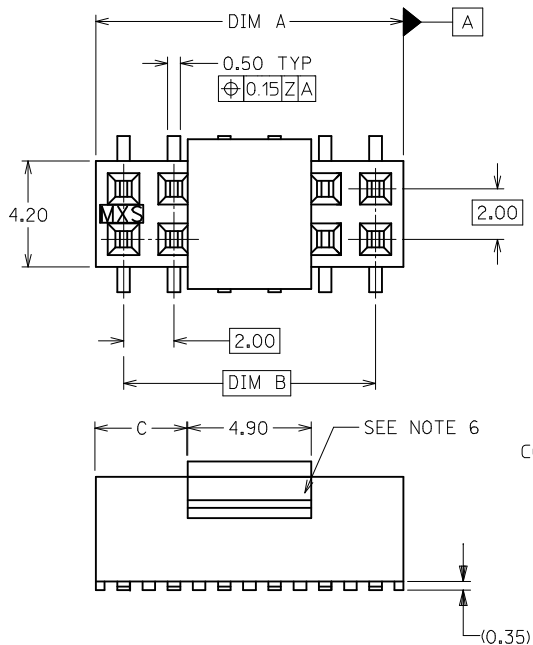
5

4

3

2

1



PART NO. LEGEND
FOR TUBE PACKAGING ONLY

87381 - * * * *

CIRCUIT SIZE

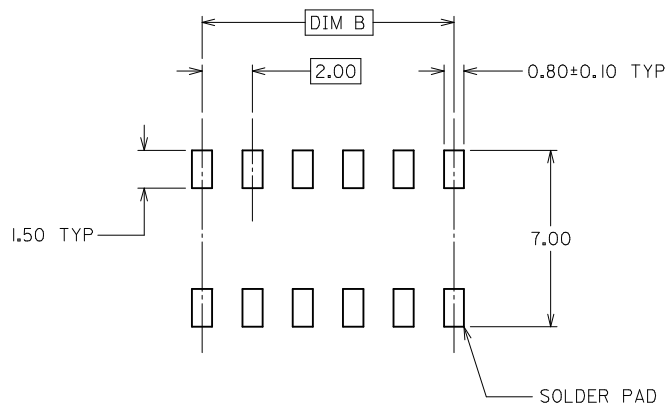
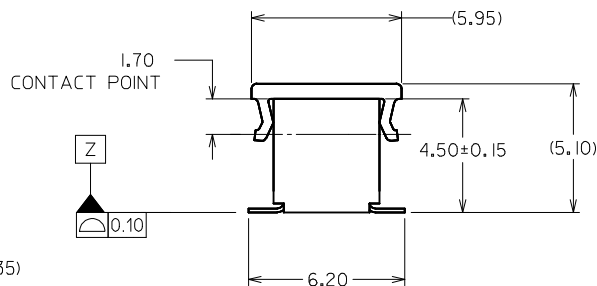
PLATING (SEE NOTE 1)

3

4

6 COVER

7 NO COVER



RECOMMENDED PCB LAYOUT

PART NUMBER (SEE NOTE 5)	CKT. SIZE	DIM A	DIM B	DIM C
87381-06**	6	6.00	4.00	0.55
87381-08**	8	8.00	6.00	1.55
87381-10**	10	10.00	8.00	2.55
87381-12**	12	12.00	10.00	3.55
87381-14**	14	14.00	12.00	4.55
87381-16**	16	16.00	14.00	5.55
87381-18**	18	18.00	16.00	6.55
87381-20**	20	20.00	18.00	7.55
87381-22**	22	22.00	20.00	8.55
87381-24**	24	24.00	22.00	9.55
87381-26**	26	26.00	24.00	10.55
87381-28**	28	28.00	26.00	11.55
87381-30**	30	30.00	28.00	12.55
87381-32**	32	32.00	30.00	13.55
87381-34**	34	34.00	32.00	14.55
87381-36**	36	36.00	34.00	15.55
87381-38**	38	38.00	36.00	16.55
87381-40**	40	40.00	38.00	17.55
87381-42**	42	42.00	40.00	18.55
87381-44**	44	44.00	42.00	19.55
87381-46**	46	46.00	44.00	20.55
87381-48**	48	48.00	46.00	21.55
87381-50**	50	50.00	48.00	22.55

NOTES:

- PLATING FINISH:
3 - 0.76um MIN. GOLD IN CONTACT AREA 1.27um MIN. TIN
IN SOLDER TAIL AREA BOTH OVER 1.27um MIN. NICKEL OVERALL
4 - 0.38um MIN. GOLD IN CONTACT AREA 1.27um MIN. TIN
IN SOLDER TAIL AREA BOTH OVER 1.27um MIN. NICKEL OVERALL
- 12 CKT SIZE SHOWN FOR ASSY ILLUSTRATION ONLY. (SEE CHART FOR ALL PART SIZES), 6 CKT & 30 CKT ILLUSTRATED FOR TAPE/REEL VERSION ON SHT 2.
- PRODUCT SPECIFICATION PS-87380 APPLIES.
- COPLANARITY OF SOLDER TAILS ARE TO BE MEASURED BY RESTING THE PART ON A FLAT GAUGE SURFACE.
- TUBE PACKAGING STANDARD.
- COVER IS OPTIONAL, SEE LEGEND.
- PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.
- REFER SHT 3 FOR P/N: 87381-6000 T&R ILLUSTRATION.

ADD P/N: 87381-3200 EC NO: S2009-0725 DRWN:SKANG CHKD:ATSEE APPR:MLONG REV E8	DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION	
				mm	INCH	DRAWN BY JAMES	DATE 1998/01/08	TITLE MGRID, TOP ENTRY RECEPT. 4.50MM HT., SMT			
			4 PLACES	± ---	± ---	CHECKED BY LCHANG	DATE 1999/04/23				
			3 PLACES	± ---	± ---	APPROVED BY SQUEK	DATE 1999/04/26				
			2 PLACES	± 0.20	± ---	MATERIAL NO. SEE TABLE					DOCUMENT NO. SD-87381-**6*
			1 PLACE	± ---	± ---	MOLEX INCORPORATED					
			ANGULAR ± 3 °								
			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					

F	E	D	C	B	A	10	9	8	7	6	5	4	3	2	1				
						CKT SIZE	PART NO. WITH CAP IN TUBE	PART NO. WITH CAP IN TAPE / REEL	W	So	Ao	F	Bo	Ko	T&R TYPE (SHT 2)	T&R QTY PER REEL			
						6	87381-0664	87381-9002	24	-	7.00	11.50	6.50	5.30	A	500			
						8	87381-0864	87381-9003	24	-	7.00	11.50	8.50	5.30	A	600			
						10	87381-1064	87381-9005	24	-	7.00	11.50	10.50	5.30	A	680			
						14	87381-1464	87381-9006	32	28.40	7.20	14.20	14.50	5.30	B	750			
						16	87381-1664	87381-9004	32	28.40	7.20	14.20	16.50	5.30	B	800			
						18	87381-1864	87381-1800	32	28.40	7.20	14.20	18.50	5.30	B	750			
						20	87381-2063	87381-2000	32	28.40	7.20	14.20	20.50	5.30	B	800			
						22	87381-2264	87381-2200	44	40.40	7.20	20.20	22.50	5.30	B	500			
						30	87381-3064	87381-3000	44	40.40	7.20	20.20	30.50	5.30	B	500			
						32	87381-3264	87381-3200	44	40.40	7.20	20.20	32.50	5.30	B	500			
						44	87381-4464	87381-4400	56	52.40	7.20	26.20	44.50	5.30	B	500			
						46	87381-4664	87381-4600	72	68.40	7.20	34.20	46.50	5.30	B	750			
						50	87381-5063	87381-5030	72	68.40	7.20	34.20	50.50	5.30	B	500			
50	87381-5064	87381-5000	72	68.40	7.20	34.20	50.50	5.30	B	500									
						QUALITY SYMBOLS						GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
ADD P/N: 87381-3200 EC NO: S2009-0725 DRWN:SKANG CHKD:ATSEE APPR:MLONG						DESCRIPTION REV	=0 =0	4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE MGRID, TOP ENTRY RECEPT. 4.50MM HT., SMT						
								3 PLACES	± ---	± ---	CHECKED BY	DATE							
								2 PLACES	± 0.20	± ---	LCHANG	1999/04/23	MOLEX INCORPORATED						
								1 PLACE	± ---	± ---	APPROVED BY	DATE							
E8								ANGULAR ± 3 °		SQUEK		1999/04/26	SD-87381-***6*						
								DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.							SHEET NO. 3 OF 4
								SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										
fb_frame_A3_P_AM_T Rev. E 2006/04/15						9	8	7	6	5	4	3	2	1					

