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Part Number: [0873810863](#)
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, 8 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

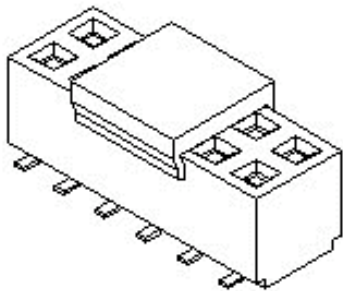
Circuits (Loaded)	8
Circuits (maximum)	8
Color - Resin	Black
Durability (mating cycles max)	25
Flammability	94V-0
Glow-Wire Compliant	No
Lock to Mating Part	None
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin-Lead
Material - Resin	High Temperature Thermoplastic
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

Duration at Max. Process Temperature (seconds)	12
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Series

image - Reference only

EU RoHS

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

China RoHS



**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

Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

Material Info

Reference - Drawing Numbers

Product Specification	PS-87380-002
Sales Drawing	SD-87381-**6*

This document was generated on 04/09/2010

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F

E

D

C

B

A

10

9

8

7

6

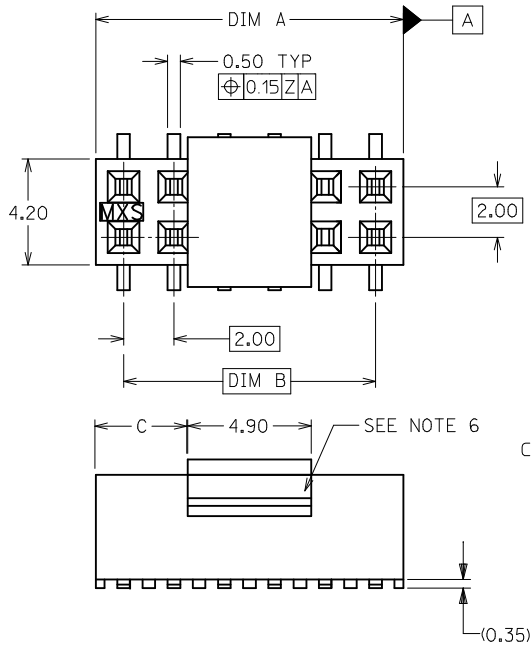
5

4

3

2

1



PART NO. LEGEND
FOR TUBE PACKAGING ONLY

87381 - * * * *

CIRCUIT SIZE

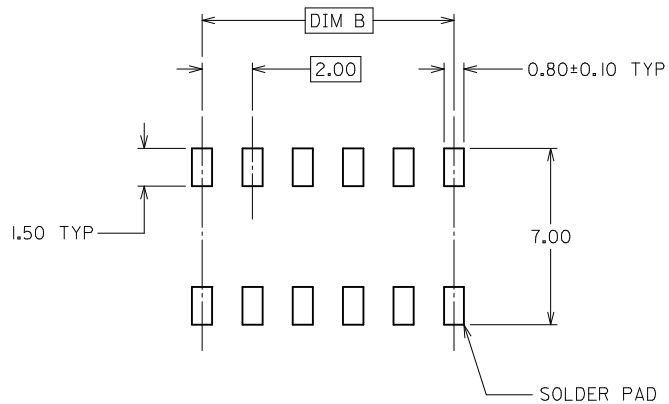
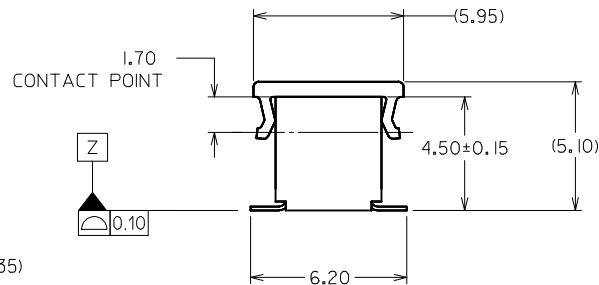
PLATING (SEE NOTE 1)

3

4

6 COVER

7 NO COVER



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:
 - 0.76um MIN. GOLD IN CONTACT AREA 1.27um MIN. TIN
IN SOLDER TAIL AREA BOTH OVER 1.27um MIN. NICKEL OVERALL
 - 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

QUALITY
SYMBOLS
=0
=0

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---

ANGULAR ± 3 °

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
MM ONLY

DRAWN BY	DATE
JAMES	1998/01/08

CHECKED BY	DATE
LCHANG	1999/04/23

APPROVED BY	DATE
SQUEK	1999/04/26

MATERIAL NO.

SEE TABLE

SIZE A3

SCALE
NTS

DESIGN UNITS
METRIC

THIRD ANGLE
PROJECTION

TITLE
MGRID, TOP ENTRY RECEPT.
4.50MM HT., SMT

MOLEX INCORPORATED

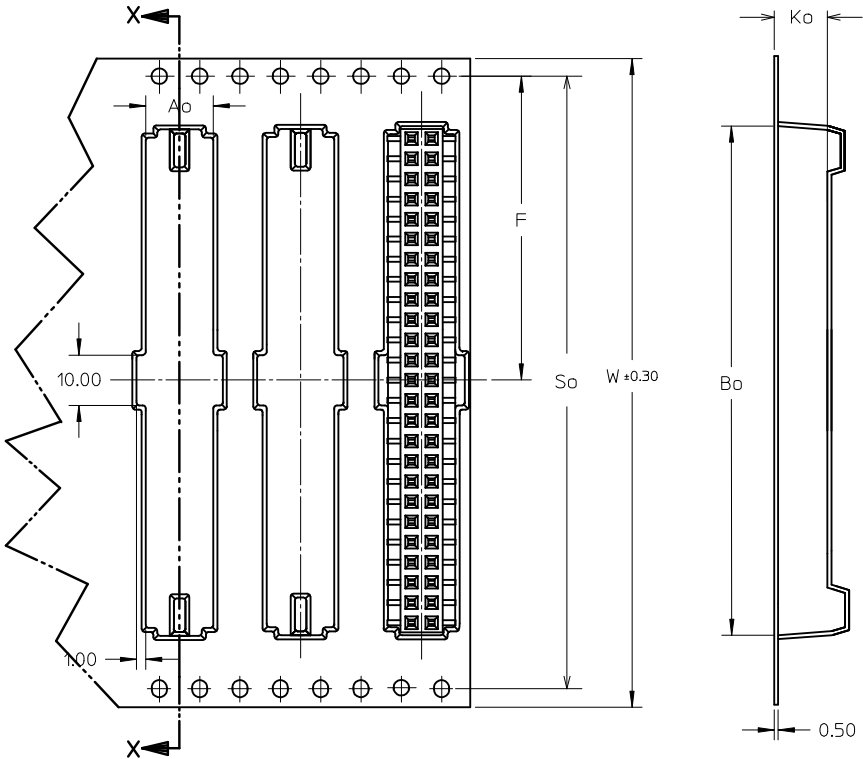
DOCUMENT NO.
SD-87381-***6*

SHEET NO.
1 OF 4

F	E	D	C	B	A	fb_frame_A3_P_AM_T Rev. E 2006/04/15	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							
ADD P/N: 87381-3200 EC NO: S2009-0725 DRWN:SKANG CHKD:ATSEE APPR:MLONG 2009/04/01 2009/04/06 2009/04/07 DESCRIPTION REV QUALITY SYMBOLS ▽=0 ◻=0 GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS DIMENSION STYLE MM ONLY DRAWN BY DATE CHECKED BY DATE APPROVED BY DATE SQUEK 1999/04/26 MATERIAL NO. DOCUMENT NO. SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION SCALE NTS DESIGN UNITS METRIC THIRD ANGLE PROJECTION MGRID, TOP ENTRY RECEPT. 4.50MM HT., SMT molex MOLEX INCORPORATED SD-87381-***6* SHEET NO. 3 OF 4																	
10	9	8	7	6	5	4	3	2	1								

CKT SIZE	PART NO. WITHOUT CAP IN TUBE	PART NO. WITHOUT CAP IN TAPE / REEL	W	So	Ao	F	Bo	Ko	T&R TYPE (SHT 2)	T&R QTY PER REEL
50	87381-5074	87381-6000 	72	68.40	6.80	34.20	50.50	8.00	B	500

 ILLUSTRATION FOR P/N: 87381-6000
50 CKT IN T&R W/O CAP



SECTION X-X

ADD P/N: 87381-3200 EC NO: S2009-0725 DRWN:SKANG 2009/04/07 CHKD:ATSEE 2009/04/06 APPR:MLONG 2009/04/07	DESCRIPTION REV	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*		SHEET NO. 4 OF 4	
			1 PLACE	± ---	± ---						
			ANGULAR ± 3 °			MOLEX MOLEX INCORPORATED					
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								