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Part Number: [0873812464](#)
Status: **Active**
Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 0.38μm (15μ") Gold (Au) Plating, with Cap, without Locating Pegs, 24 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

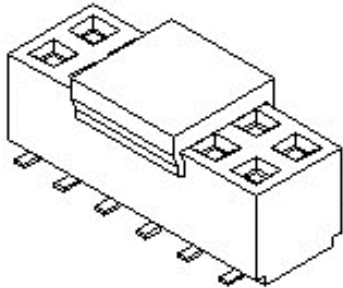
Circuits (Loaded) 24
Circuits (maximum) 24
Color - Resin Black
Durability (mating cycles max) 25
Flammability 94V-0
Glow-Wire Compliant No
Lock to Mating Part None
Material - Metal Phosphor Bronze
Material - Plating Mating Gold
Material - Plating Termination Tin-Lead
Material - Resin High Temperature 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) 15
Plating min: Mating (μm) 0.38
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



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

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 03/18/2010

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F

E

D

C

B

A

10

9

8

7

6

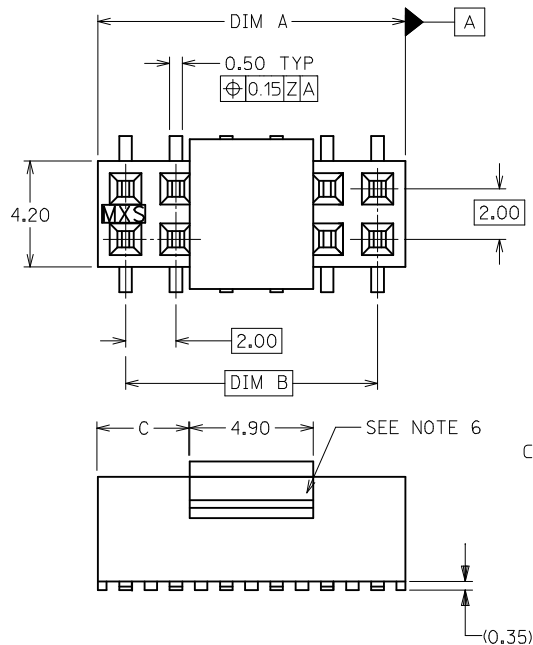
5

4

3

2

1



PART NO. LEGEND
FOR TUBE PACKAGING ONLY

87381 - * * * *

CIRCUIT SIZE

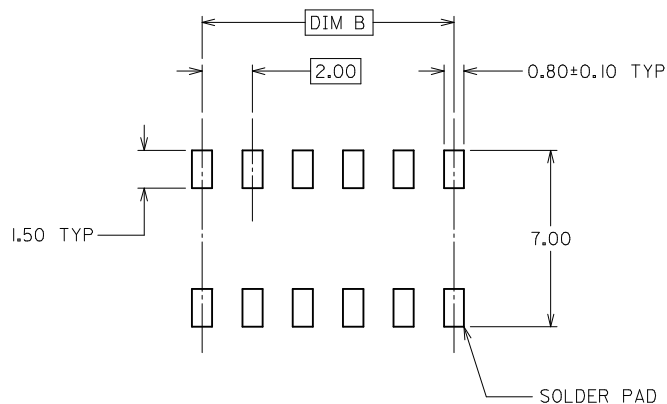
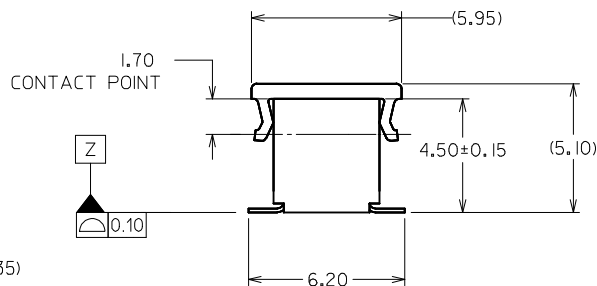
PLATING (SEE NOTE 1)

3

4

6 COVER

7 NO COVER



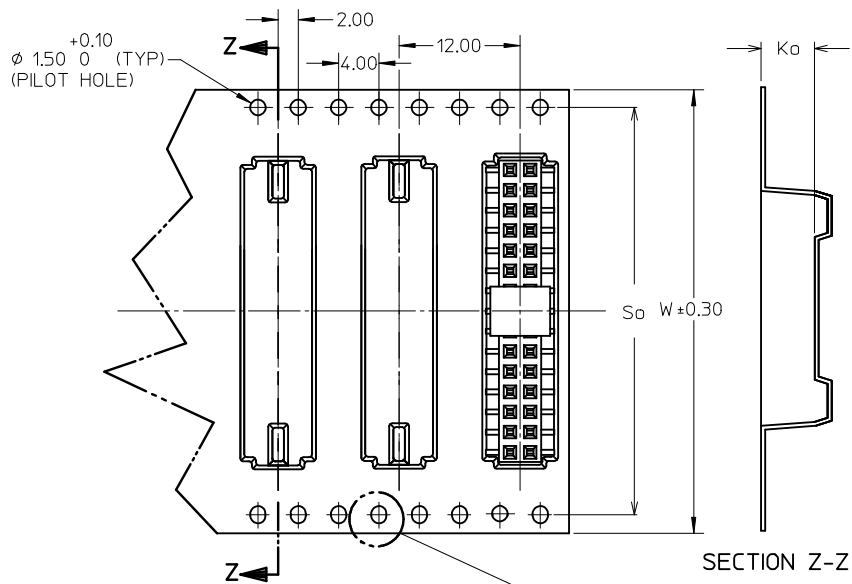
RECOMMENDED PCB LAYOUT

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.

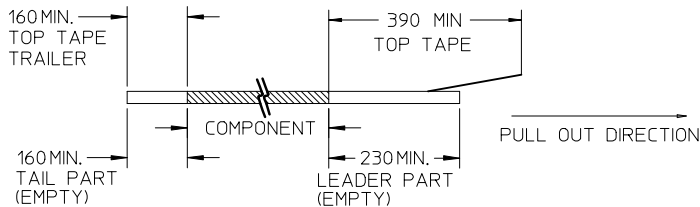
ADD P/N: 87381-3200 EC NO: S2009-0725 DRWN:SKANG CHKD:ATSEE APPR:MLONG REV E8	QUALITY SYMBOLS ▽=0 ▽=0	DESCRIPTION	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
				mm	INCH	DRAWN BY JAMES	DATE 1998/01/08	TITLE MGRID, TOP ENTRY RECEPT.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



30 CKT FOR ILLUSTRATION ONLY
TAPE & REEL TYPE 'B'

NOTES:

1. LEADER AND TRAILER TAPE



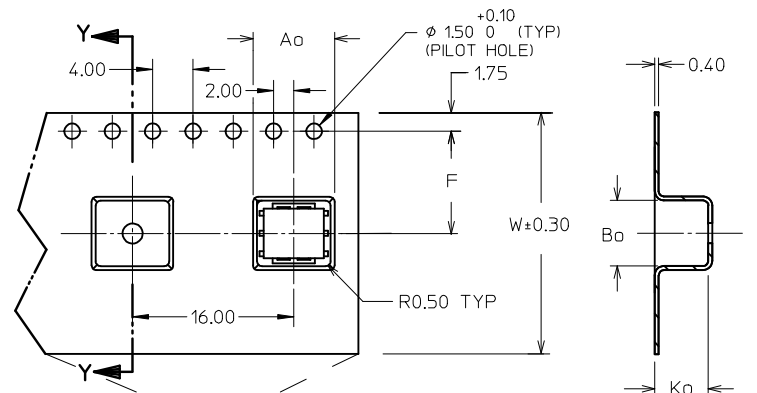
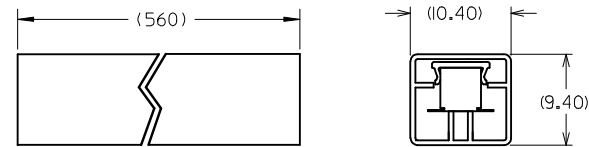
2. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



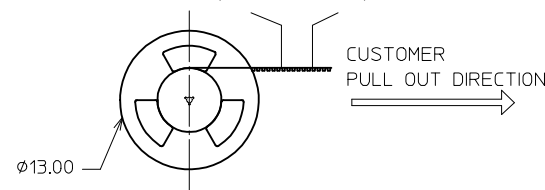
3. PACKAGING STANDARD IS AS PER EIA-481.

4. TAPE & REEL QUANTITY = SEE TABLE

CONNECTOR ORIENTATION
IN TUBE



SECTION Y-Y



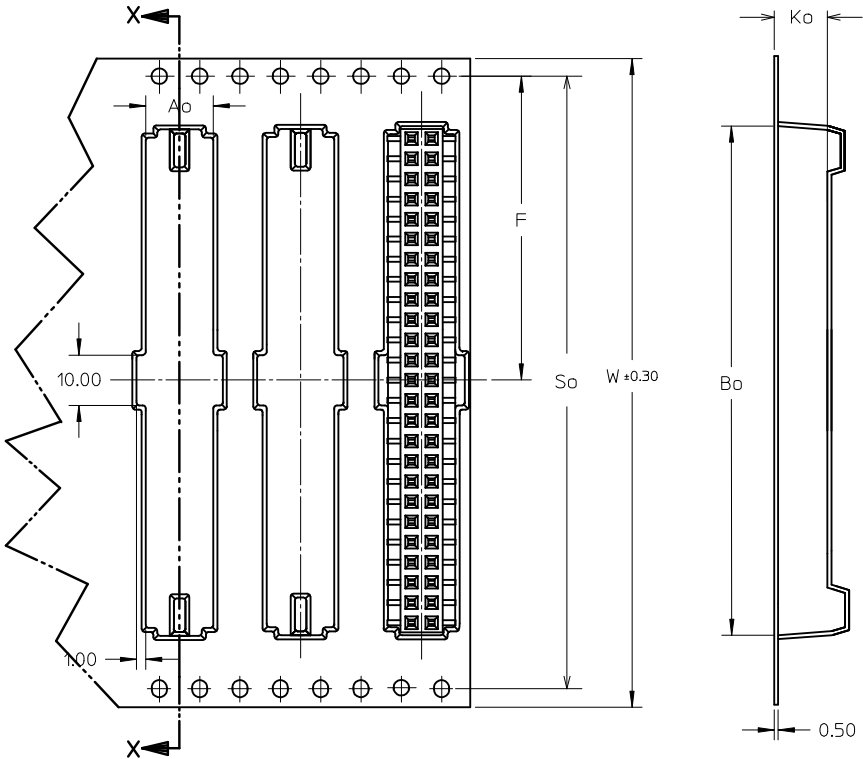
6 CKT FOR ILLUSTRATION ONLY
TAPE & REEL TYPE 'A'

ADD P/N: 87381-3200 EC NO: S2009-0725 DRWN:SKANG CHKD:ATSEE APPR:MLONG REV E8	2009/04/01 2009/04/06 2009/04/07	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	DATE			
				3 PLACES	± ---	± ---	LCHANG	1999/04/23			
				2 PLACES	± 0.20	± ---	APPROVED BY	DATE	MOLEX MOLEX INCORPORATED	DOCUMENT NO. SD-87381-**6*	SHEET NO. 2 OF 4
				1 PLACE	± ---	± ---	SQUEK	1999/04/26			
			ANGULAR ± 3 °		MATERIAL NO. SEE TABLE						
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

[illegible]

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 CHKD:ATSEE APPR:MLONG			2009/04/07 2009/04/06 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		MOLEX MOLEX INCORPORATED			
							2 PLACES ± 0.20	± ---	MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87381-**6*					SHEET NO. 4 OF 4
							1 PLACE ± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
							ANGULAR ± 3 °									