

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0873819006](#)
Status: **Active**
Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 4.5mm (.177") Height, 0.38µm (15µ") Gold (Au) Plating, with Cap, without Locating Pegs, 14 Circuits, Embossed Tape on Reel, 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

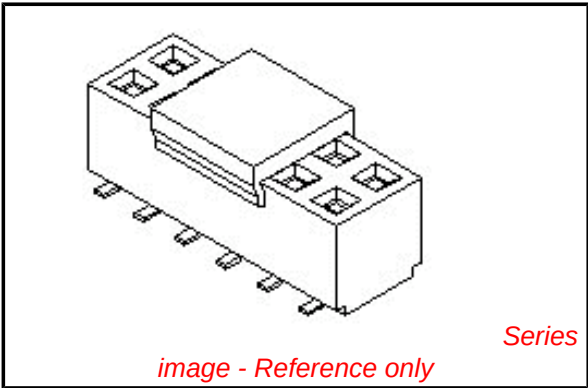
Product Family PCB Receptacles
Series [87381](#)
Application Board-to-Board
Comments With Cap
Product Name Milli-Grid™

Physical

Circuits (Loaded) 14
Circuits (maximum) 14
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 Embossed Tape on Reel
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 Mating Part No
Polarized to PCB No
Robotic Placement Pick and Place Cap
Stackable Yes
Surface Mount Compatible (SMC) Yes
Temperature Range - Operating -55°C to +105°C
Termination Interface: Style Surface Mount

Electrical

Current - Maximum per Contact 1.9A



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
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

[87381](#)Series

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

Voltage - Maximum	125V
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Solder Process Data

Duration at Max. Process Temperature (seconds)	14
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	265

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

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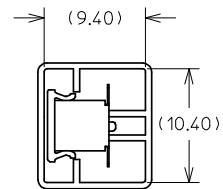
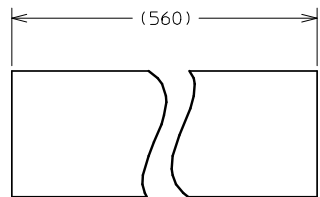
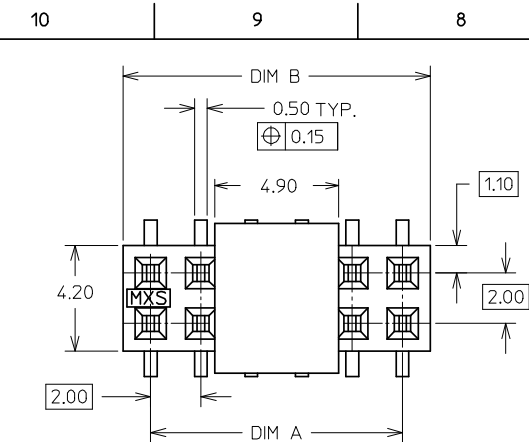
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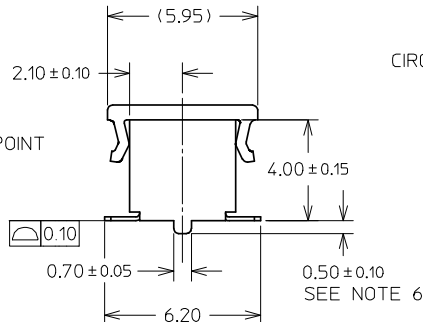
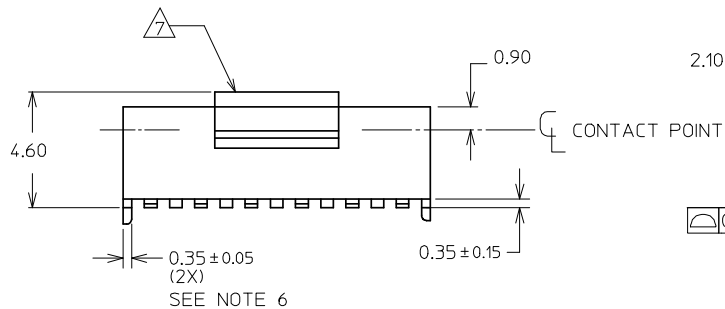
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B

A



CONNECTOR ORIENTATION IN TUBE



PART NO. LEGEND

87381 - * * * *

CIRCUIT SIZE

PLATING

5 (SEE NOTE 1)

PEG OPTION

0 WITHOUT PEG

1 WITH PEG

PART NUMBER W/ CAP IN TUBE	CKT. SIZE	DIM A	DIM B
87381-04**	4	2.00	4.00
87381-06**	6	4.00	6.00
87381-08**	8	6.00	8.00
87381-10**	10	8.00	10.00
87381-12**	12	10.00	12.00
87381-141*	14	12.00	14.00
87381-16**	16	14.00	16.00
87381-18**	18	16.00	18.00
87381-20**	20	18.00	20.00
87381-22**	22	20.00	22.00
87381-24**	24	22.00	24.00
87381-26**	26	24.00	26.00
87381-28**	28	26.00	28.00
87381-30**	30	28.00	30.00
87381-32**	32	30.00	32.00
87381-34**	34	32.00	34.00
87381-36**	36	34.00	36.00
87381-38**	38	36.00	38.00
87381-40**	40	38.00	40.00
87381-42**	42	40.00	42.00
87381-44**	44	42.00	44.00
87381-46**	46	44.00	46.00
87381-48**	48	46.00	48.00
87381-50**	50	48.00	50.00

NOTES:

1. PLATING FINISH :

- 5 - 0.76µm MIN. GOLD IN CONTACT AREA
1.27µm MIN TIN IN SOLDER TAIL AREA
BOTH OVER 1.27µm MIN NICKEL OVERALL
- 9 - 0.38µm MIN GOLD IN CONTACT AREA
1.27µm MIN TIN IN SOLDER TAIL AREA
BOTH OVER 1.27µm MIN NI OVERALL

2. MATERIAL:

HOUSING : NYLON 4/6, 94V-0, COLOUR BLACK
CAP : PCT, GLASS FILLED, COLOUR BLACK
TERMINAL : COPPER ALLOY
EMBOSS TAPE : CLEAR POLYSTYRENE
COVER TAPE : CLEAR POLYESTER

3. PRODUCT SPECIFICATION PS-87380 APPLIES

4. COPLANARITY OF SOLDER TAILS ARE TO BE MEASURED BY
RESTING THE PART ON A FLAT GAUGE SURFACE

5. OTHER PLATING OPTIONS AVAILABLE. PLEASE CONTACT FACTORY

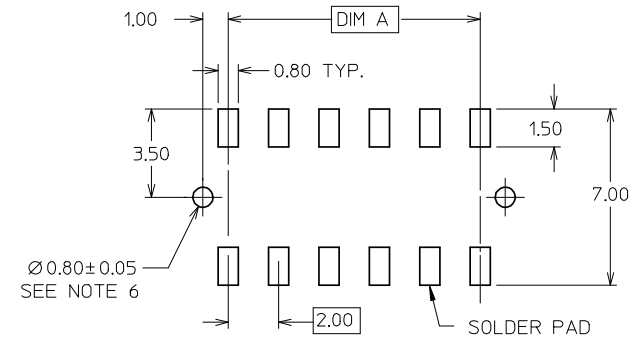
6. PEG AND PCB HOLE OPTIONAL. SEE PART LEGEND FOR PART
CONFIGURATION

△ POSITION OF CAP TO BE LOCATED AT CENTER OF DIM A
REGARDLESS OF CKT SIZES.

8. 12 CKT SIZE SHOWN FOR ILLUSTRATION ONLY. SEE CHART
FOR ALL AVAILABLE PART SIZES. 22 CKT ILLUSTRATED
FOR TAPE/REEL VERSION ON SHT 2.

9. PACKING QTY PER REEL IS APPROX. 800PCS.

10. PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.



RECOMMENDED PCB LAYOUT

PDR#S-001789-00-00
EC NO: S2008-0938
DRWN:SKANG
CHKD:ATSEE
APPR:MLONG
2008/04/16
2008/04/16
2008/04/16

QUALITY
SYMBOLS

▽=0

▽=0

GENERAL TOLERANCES
(UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.2	± ---
1 PLACE	± ---	± ---

ANGULAR ± 3 °

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

DIMENSION STYLE
MM ONLY

DRAWN BY	DATE
KSEE	1999/01/06
CHECKED BY	DATE
KCLING	1999/01/11
APPROVED BY	DATE
SKTOH	1999/01/11

MATERIAL NO.

SEE TABLE

SIZE
A3SCALE
NTSDESIGN UNITS
METRICTHIRD ANGLE
PROJECTION

MGRID, TOP ENTRY RECEPT.
4MM HT., W/PEGS/CAP
IN TUBE AND T&R, SMT

MOLEX INCORPORATED

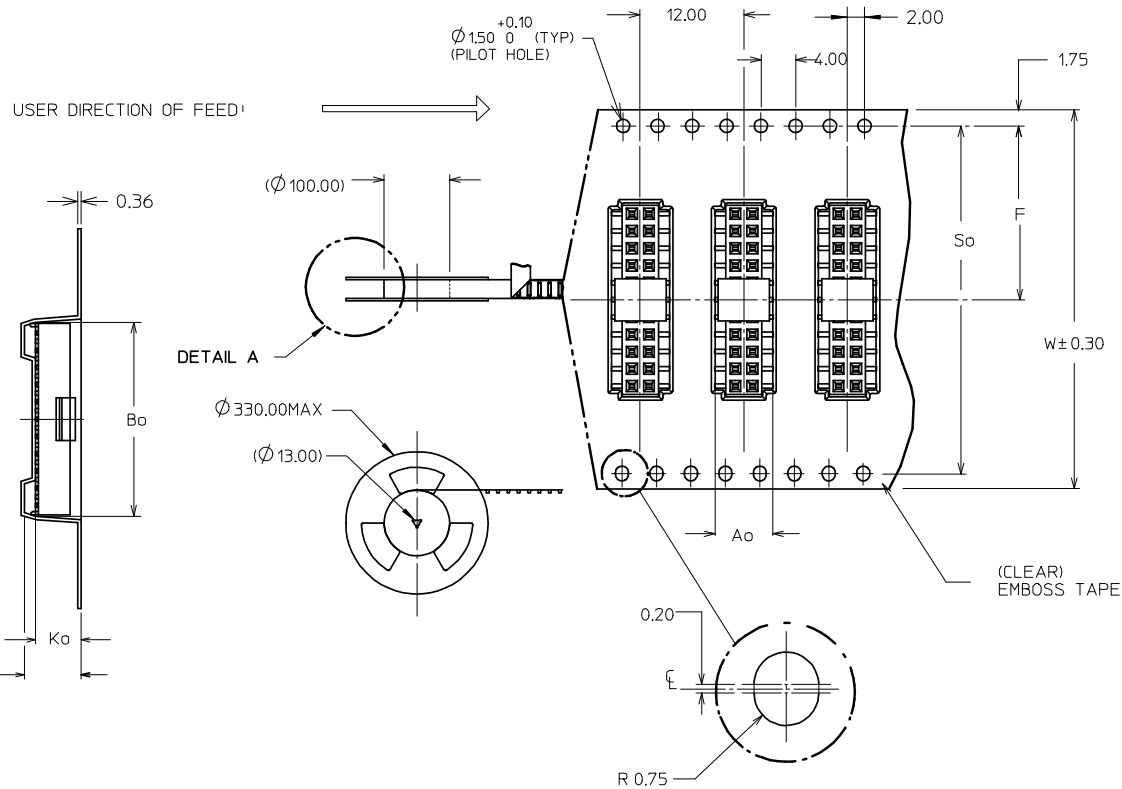
DOCUMENT NO.

SD-87381-***3

SHEET NO.

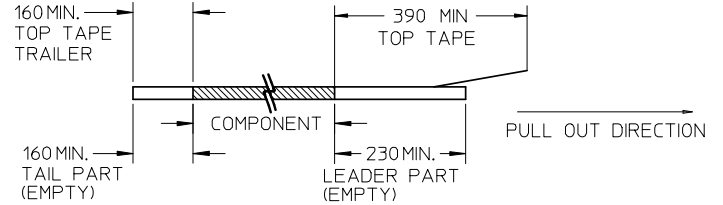
1 OF 2

CKT SIZE	PLATING FINISH (SEE NOTE #1)	PART NO WITH CAP IN TAPE / REEL	PART NO WITH CAP IN TUBE	W	So	Ao	F	Bo	Ko
08	9	87381-9016	87381-0819	24.00	-	7.00	11.50	8.50	4.80
10	5	87381-9030	87381-1015	24.00	-	7.00	11.50	10.50	4.80
30	9	87381-9015	87381-3019	56.00	52.40	7.00	26.20	30.50	4.80
50	9	87381-9027	87381-5019	72.00	68.40	7.00	34.20	50.50	4.80
50	5	87381-9028	87381-5015	72.00	68.40	7.00	34.20	50.50	4.80

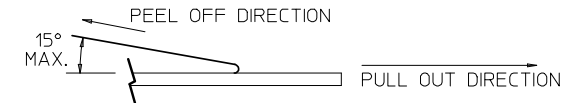


NOTES:

1. LEADER AND TRAILER TAPE



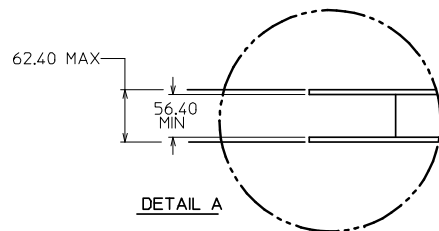
2. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf. (PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



3. PACKAGING STANDARD IS AS PER EIA-481.

4. TAPE & REEL QUANTITY = 800 PCS/REEL

TAPE & REEL ORIENTATION (22 CKT SHOWN FOR REF)
(NTS)



PDR#S-001789-00-00		EC NO: S2008-0938		2008/04/16	
DRWN:SKANG		CHKD:ATSEE		2008/04/16	
APPR:MLONG		2008/04/16			
D3		REV			

QUALITY SYMBOLS	DESCRIPTION
▽=0	
▽=0	

GENERAL TOLERANCES (UNLESS SPECIFIED)	
4 PLACES	± ---
3 PLACES	± ---
2 PLACES	± 0.2
1 PLACE	± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE MM ONLY	
DRAWN BY	DATE
KSEE	1999/01/06
CHECKED BY	DATE
KCLING	1999/01/11
APPROVED BY	DATE
SKTOH	1999/01/11
MATERIAL NO.	
SEE TABLE	
SIZE A3	

SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
TITLE		
MGRID, TOP ENTRY RECEPT. 4MM HT., W/PEGS/CAP IN TUBE AND T&R, SMT		
MOLEX INCORPORATED		
DOCUMENT NO.		SHEET NO.
SD-87381-***3		2 OF 2
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