molex
one company > a world of innovation

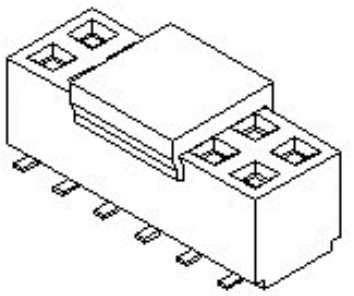
This document was generated on 04/09/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0873811015

Status: Active

Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 0.76µm (30µ") Gold (Au) Plating, with Cap Version, with Locating Pegs, 10 Circuits, Tube Packaging, Lead free



Series image - Reference only

Documents:

3D Model
Drawing (PDF)
Product Specification PS-87380-002 (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)	10
Circuits (maximum)	10
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
Material - Resin	Nylon
Number of Rows	2
Orientation	Vertical
PCB Locator	Yes
PCB Retention	Yes
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 Mating Part	No
Polarized to PCB	No
Robotic Placement	Pick and Place Cap
Stackable	Yes
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

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
87381Series

Mates With
87758 , 87759, 87760, 87832 Surface Mount PCB Header, 87833 Right Angle PCB Header, 87831 Vertical, Through Hole PCB Header

Voltage - Maximum	125V

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

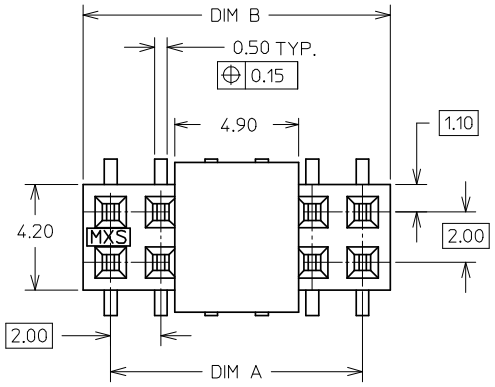
Material Info

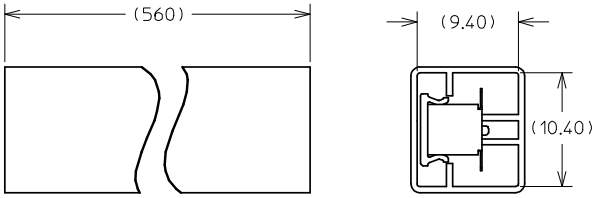
Reference - Drawing Numbers

Product Specification	PS-87380-002
Sales Drawing	SD-87381-***3

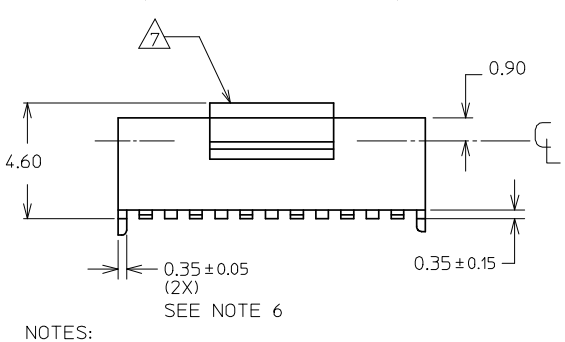
This document was generated on 04/09/2010

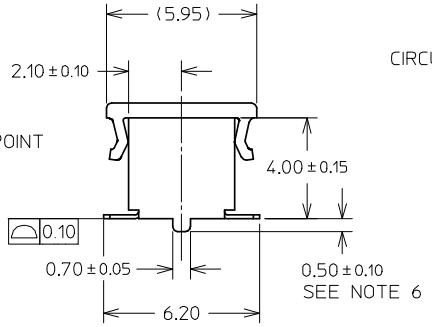
PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION





CONNECTOR ORIENTATION IN TUBE





PART NO. LEGEND

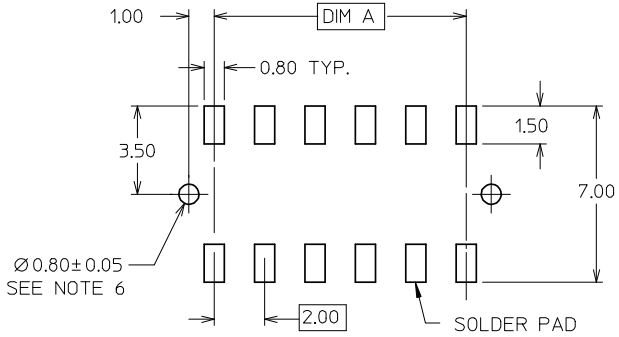
87381 - * * * *

- CIRCUIT SIZE
- PLATING
  - 5
  - 9 (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 - 0.76um MIN. GOLD IN CONTACT AREA
     1.27um MIN TIN IN SOLDER TAIL AREA
     BOTH OVER 1.27um MIN NICKEL OVERALL
   - 9 - 0.38um MIN GOLD IN CONTACT AREA
     1.27um MIN TIN IN SOLDER TAIL AREA
     BOTH OVER 1.27um 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 CONFIGURATON
7. 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 2008/04/16
DRWN:SKANG 2008/04/16
CHKD:ATSEE 2008/04/16
APPR:MLONG 2008/04/16
DESCRIPTION
D3
REV

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
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

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

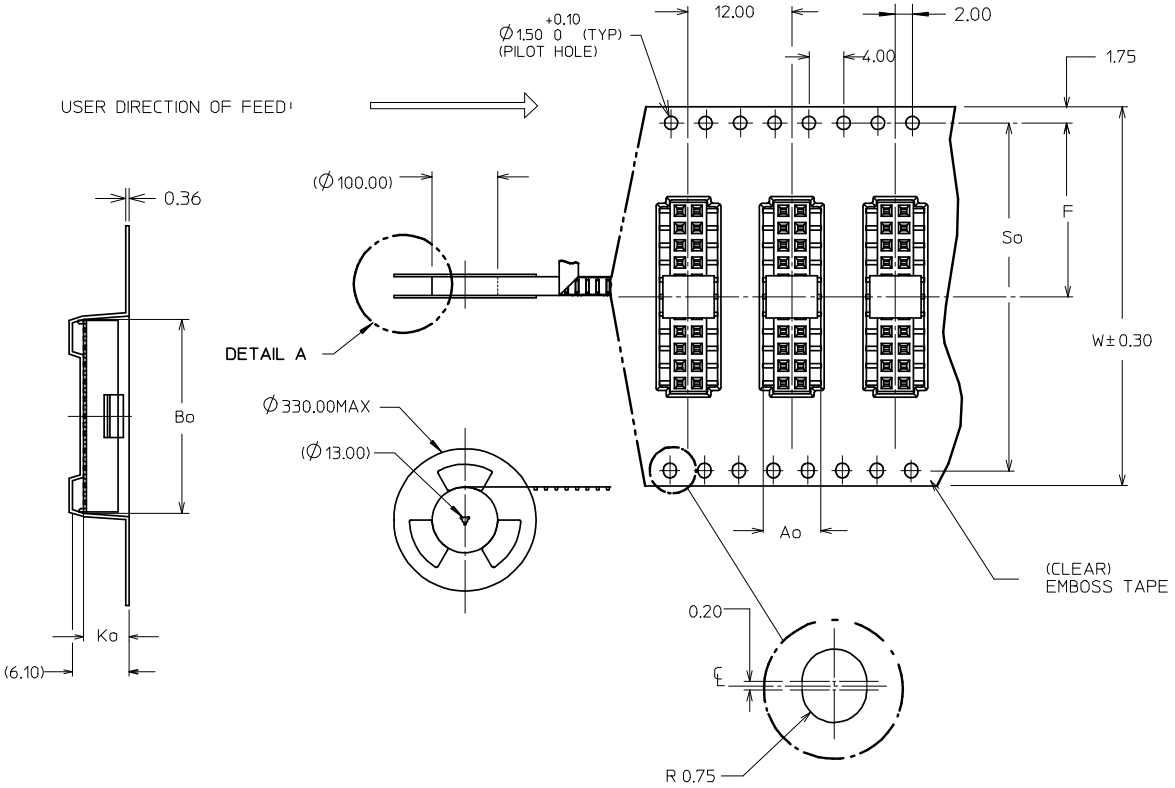
TITLE: MGRID, TOP ENTRY RECEPT. 4MM HT., W/PEGS/CAP IN TUBE AND T&R, SMT

MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87381-***3
SHEET NO.: 1 OF 2
SIZE: A3

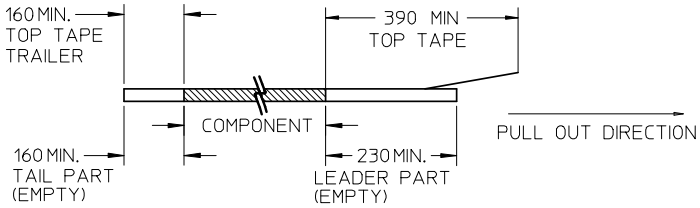
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

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

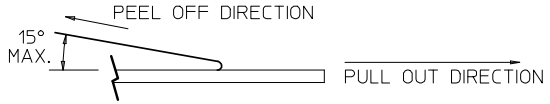


NOTES:

1. LEADER AND TRAILER TAPE



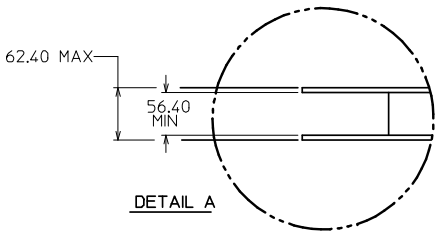
2. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.
   (PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



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 2008/04/16
CHKD:ATSEE 2008/04/16
APPR:MLONG 2008/04/16
DESCRIPTION
REV
D3

QUALITY SYMBOLS
▼=0
▽C=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
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

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

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

MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87381-***3
SHEET NO.: 2 OF 2
SIZE: A3

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