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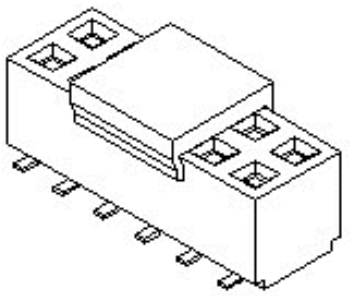
Part Number: 0873814683
Status: Active
Description: 2.00mm (.079") Pitch Milli-Grid™ Receptacle, Surface Mount, Top Entry, 0.76µm (30µ") Gold (Au) Plating, with Cap, with Locating Pegs, 46 Circuits, Lead-free



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)	46
Circuits (maximum)	46
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 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)	14
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1

EU RoHS
ELV and RoHS Compliant
REACH SVHC
Contains SVHC: No
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

Process Temperature max. C	265

Material Info

Reference - Drawing Numbers

Product Specification	PS-87380-002
Sales Drawing	SD-87381-**8*

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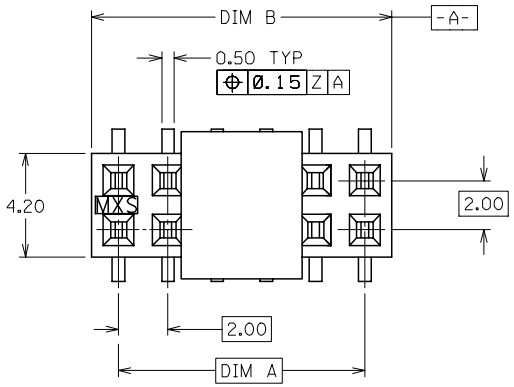
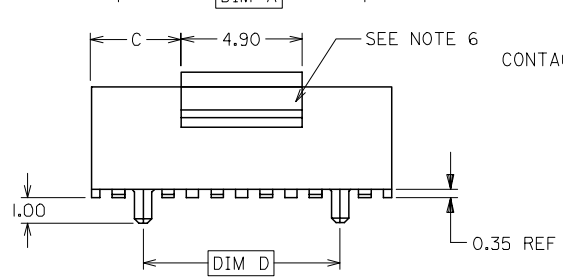




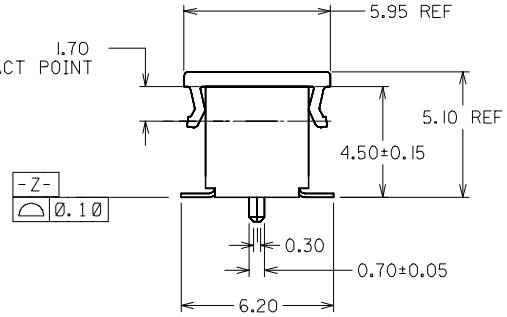
PART NO. LEGEND

87381- * * * *

CIRCUIT SIZE

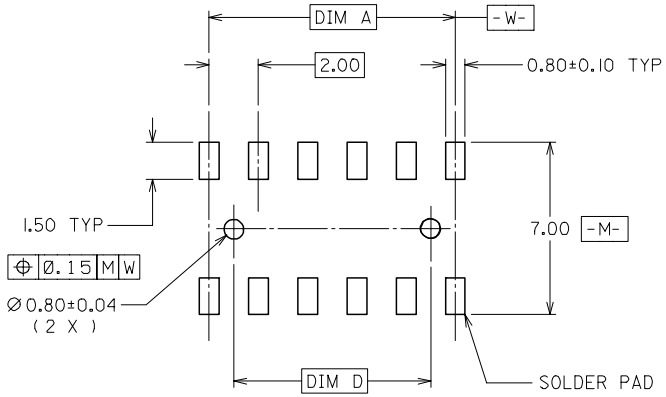
PLATING
3
4 (SEE NOTE 1)

8 COVER
9 NO COVER



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

NOTES:
1. PLATING FINISH :
   3 - 0.76um MIN. GOLD IN CONTACT AREA, 1.27um MIN. TIN IN SOLDER TAIL AREA BOTH OVER 1.27um MIN NBICKEL OVEALL
   4 - 0.38um MIN. GOLD IN CONTACT AREA 1.27um MIN. TIN IN SOLDER TAIL AREA BOTH OVER 1.27um MIN NBICKEL OVEALL
2. 12 CKT SIZE SHOWN FOR ILLUSTRATION ONLY. SEE CHART FOR ALL AVAILABLE PART SIZES
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. TUBE PACKAGING STANDARD
6. COVER IS OPTIONAL, SEE LEGEND.
7. PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.



RECOMMENDED PCB LAYOUT

ADD NOTE 7.
EC NO: S2008-0281 2007/10/31
DRWN:SKANG 2007/11/01
CHKD:ATSEE 2007/11/01
APPR:MLONG
DESCRIPTION
REV
D2

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

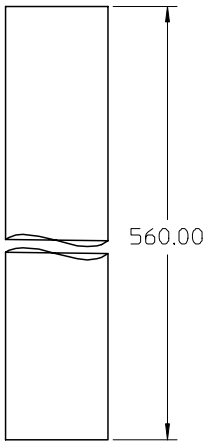
		DATE
DRAWN BY	RSHAN	1998/03/10
CHECKED BY	SQUEK	1998/03/28
APPROVED BY	SKTOH	1998/03/28

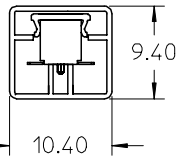
TITLE: MGRID 2MM RECEPTACLE 4.50MM HT.

MOLEX INCORPORATED

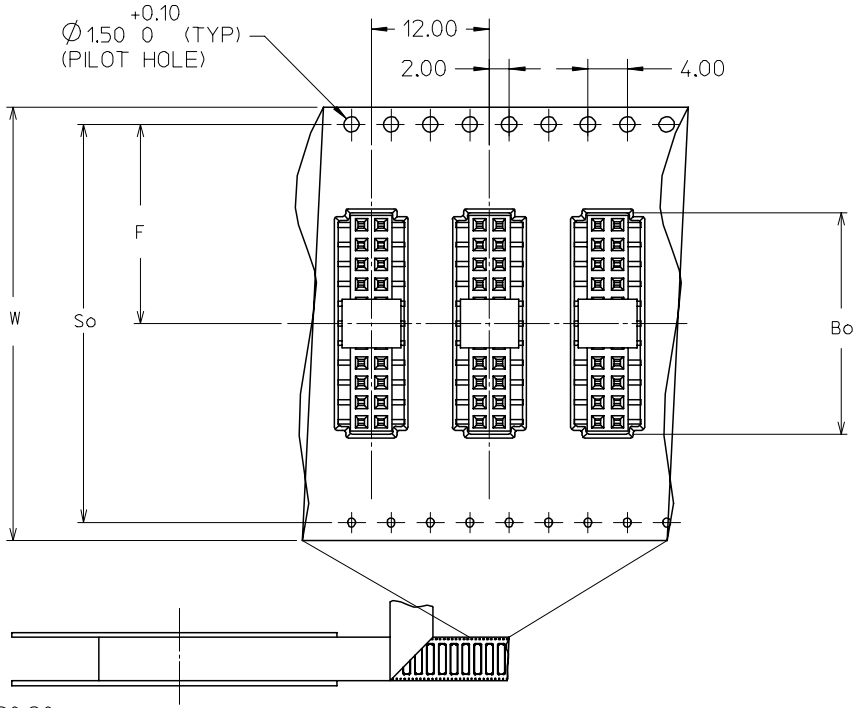
MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87381-**8*
SHEET NO.: 1 OF 3
SIZE: A3

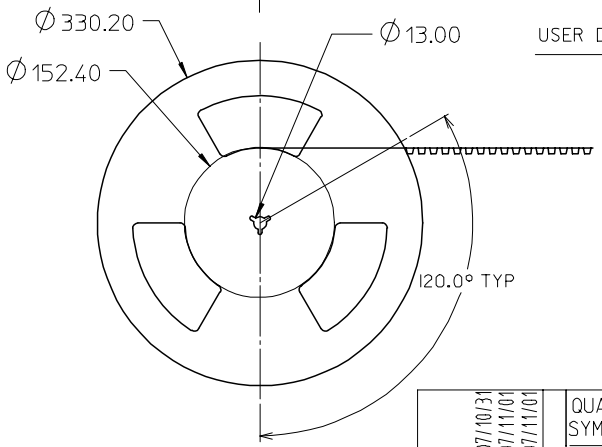
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION





TUBE PACKAGING ORIENTATION
(SEE SHT 1 FOR PART NUMBER)



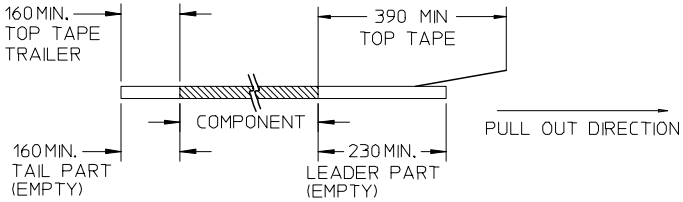


TAPE AND REEL ORIENTATION

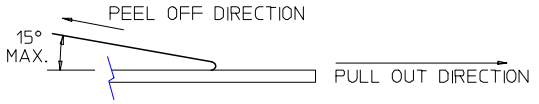
USER DIRECTION OF FEED

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

REV	DESCRIPTION	DATE
	ADD NOTE 7.	2007/10/31
	EC NO: S2008-0281	2007/11/01
	DRWN:SKANG CHKD:ATSEE APPR:MLONG	2007/11/01

D2

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▽C=0

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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	RSHAN
DATE	1998/03/10
CHECKED BY	SQUEK
DATE	1998/03/28
APPROVED BY	SKTOH
DATE	1998/03/28
MATERIAL NO.	SEE TABLE
TITLE	MGRID 2MM RECEPTACLE 4.50MM HT.
	MOLEX INCORPORATED
DOCUMENT NO.	SD-87381-**8*
SHEET NO.	2 OF 3
SIZE	A3

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PART NUMBER (W/CAP IN TUBE)	MOISTURE BARRIER BAG P/N FOR TUBE 7	PART NUMBER (W/ CAP IN T&R)	MOISTURE BARRIER BAG P/N FOR T&R 7	CKT. SIZE	W	So	F	Bo
87381-2284	89990-0201	87381-8252	89990-0200	22	44.00	40.40	20.20	22.50
87381-3084		87381-8231		30	56.00	52.40	26.20	30.50

ADD NOTE 7.
EC NO: S2008-0281 2007/10/31
DRWN:SKANG 2007/11/01
CHKD:ATSEE 2007/11/01
APPR:MLONG
DESCRIPTION
REV

D2

QUALITY SYMBOLS
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Ⓒ▽=0

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DIMENSION STYLE: MM ONLY
SCALE: NTS
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: RSHAN DATE: 1998/03/10
CHECKED BY: SQUEK DATE: 1998/03/28
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MOLEX INCORPORATED

MATERIAL NO.: SEE TABLE
DOCUMENT NO.: SD-87381-**8*
SHEET NO.: 3 OF 3

SIZE A3

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