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Part Number: [0873815015](#)
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, 50 Circuits, Lead-free, Tube

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) 50
 Circuits (maximum) 50
 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 Yes
 PCB Retention None
 PCB Thickness Recommended (in) 0.031 In
 PCB Thickness Recommended (mm) 0.80 mm
 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
 Robotic Placement Pick and Place Cap
 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

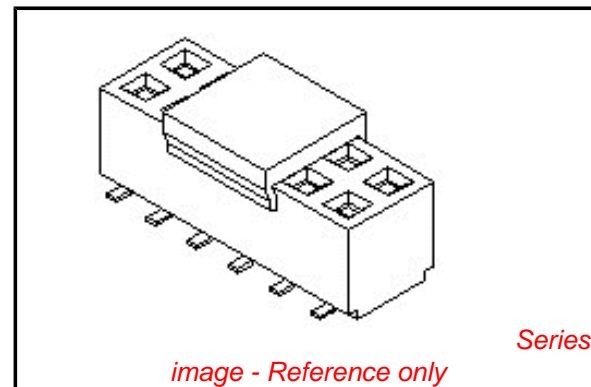


image - Reference only

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](#) 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

Material Info

Reference - Drawing Numbers

Product Specification

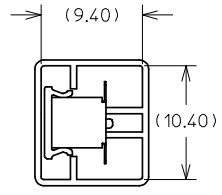
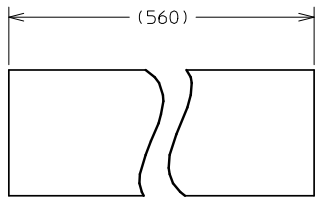
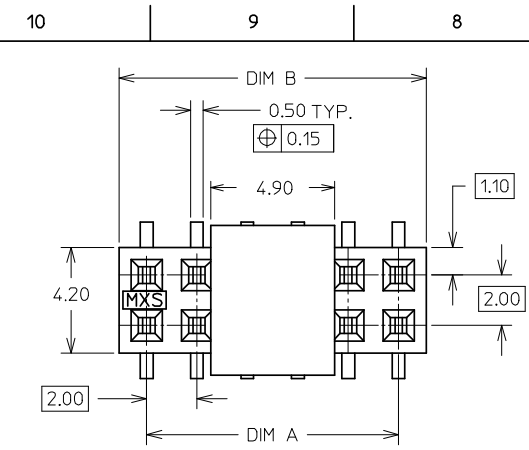
PS-87380-002

Sales Drawing

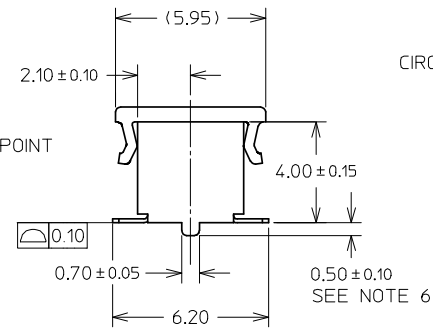
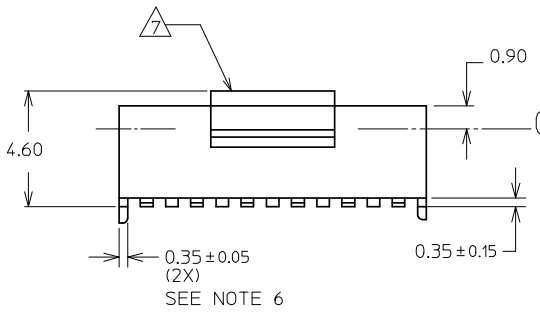
SD-87381-***3

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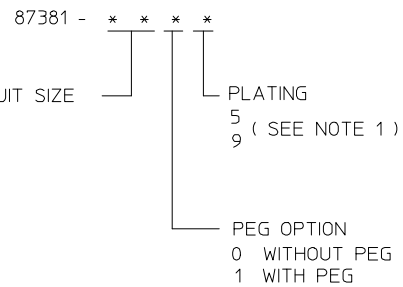
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CONNECTOR ORIENTATION IN TUBE

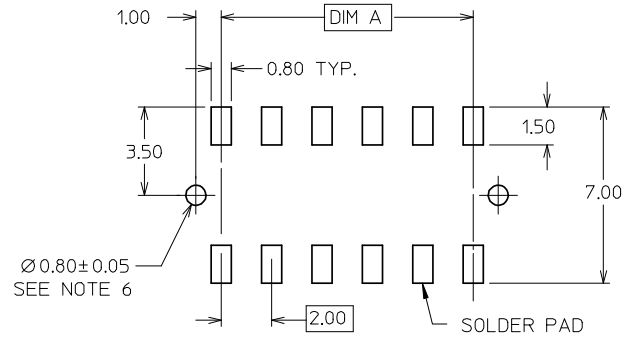


PART NO. LEGEND



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

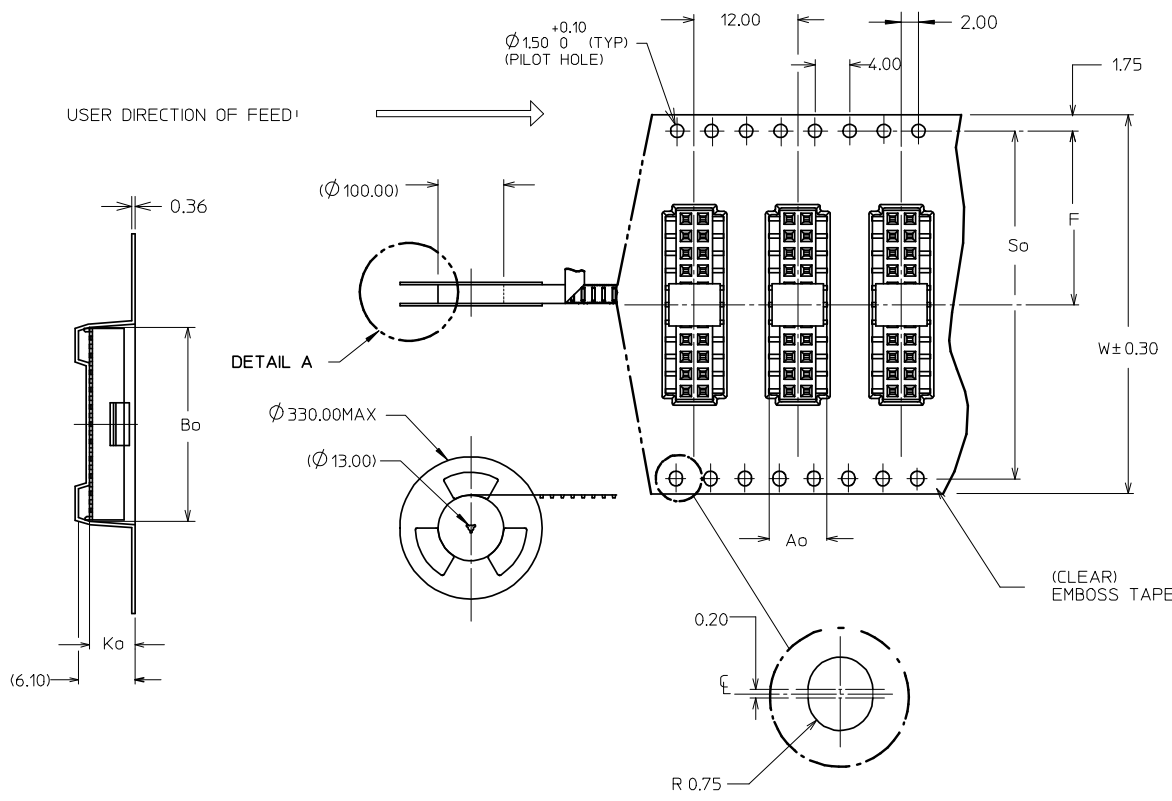
- NOTES:
- PLATING FINISH :
 - 5 - 0.76µm MIN. GOLD IN CONTACT AREA
1.27µm MIN TIN IN SOLDER TAIL AREA
BOTH OVER 1.27µm MIN NICKEL OVERALL
 - 9 - 0.38µm MIN GOLD IN CONTACT AREA
1.27µm MIN TIN IN SOLDER TAIL AREA
BOTH OVER 1.27µm MIN NI OVERALL
 - MATERIAL:
 - HOUSING : NYLON 4/6, 94V-0, COLOUR BLACK
 - CAP : PCT, GLASS FILLED, COLOUR BLACK
 - TERMINAL : COPPER ALLOY
 - EMBOSS TAPE : CLEAR POLYSTYRENE
 - COVER TAPE : CLEAR POLYESTER
 - PRODUCT SPECIFICATION PS-87380 APPLIES
 - COPLANARITY OF SOLDER TAILS ARE TO BE MEASURED BY RESTING THE PART ON A FLAT GAUGE SURFACE
 - OTHER PLATING OPTIONS AVAILABLE. PLEASE CONTACT FACTORY
 - PEG AND PCB HOLE OPTIONAL. SEE PART LEGEND FOR PART CONFIGURATON
 - △ POSITION OF CAP TO BE LOCATED AT CENTER OF DIM A REGARDLESS OF CKT SIZES.
 - 12 CKT SIZE SHOWN FOR ILLUSTRATION ONLY. SEE CHART FOR ALL AVAILABLE PART SIZES. 22 CKT ILLUSTRATED FOR TAPE/REEL VERSION ON SHT 2.
 - PACKING QTY PER REEL IS APPROX. 800PCS.
 - PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.



RECOMMENDED PCB LAYOUT

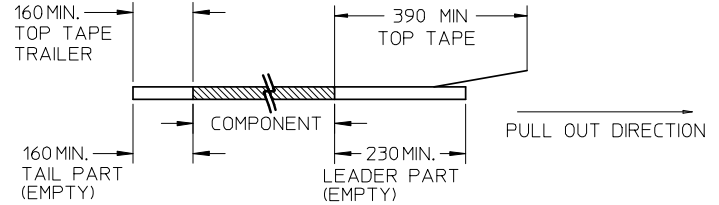
PDR#S-001789-00-00 EC NO: S2008-0938 DRWN:SKANG CHKD:ATSEE APPR:MLONG 2008/04/16 2008/04/16 2008/04/16	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
				MM ONLY		NTS	METRIC				
				mm	INCH	DRAWN BY	DATE	TITLE			
				4 PLACES	± ---	± ---	KSEE	1999/01/06	MGRID, TOP ENTRY RECEPT. 4MM HT., W/PEGS/CAP IN TUBE AND T&R, SMT		
		3 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED SD-87381-***3				
		2 PLACES	± 0.2	± ---	KCL ING	1999/01/11					
		1 PLACE	± ---	± ---	APPROVED BY	DATE	SHEET NO.				
		ANGULAR ± 3 °		SKTOH		1999/01/11	1 OF 2				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.					
				SEE TABLE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
				SIZE							
				A3							

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

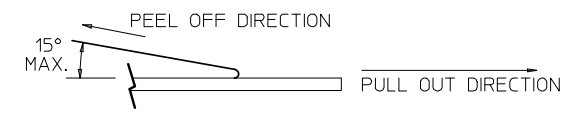


NOTES:

1. LEADER AND TRAILER TAPE



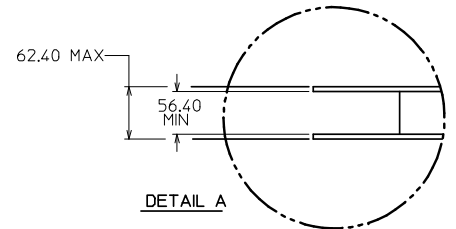
2. PEELING OFF FORCE OF THE TOP TAPE: 20-80gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



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	DRWN:SKANG	CHKD:ATSEE	APPR:MLONG	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
						▽=0	mm	INCH	NTS	METRIC	⊙			
D3	REV	2008/04/16	2008/04/16	2008/04/16		4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE			
						3 PLACES	± ---	± ---	KSEE	1999/01/06	MGRID, TOP ENTRY RECEPT.			
						2 PLACES	± 0.2	± ---	CHECKED BY	DATE	4MM HT., W/PEGS/CAP			
						1 PLACE	± ---	± ---	KCL ING	1999/01/11	IN TUBE AND T&R, SMT			
						ANGULAR ± 3 °		APPROVED BY	DATE	MOLEX INCORPORATED				
						DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DATE	DOCUMENT NO.		SHEET NO.		
								SKTOH	1999/01/11	SEE TABLE		SD-87381-***3		2 OF 2
								THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						