

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0877594014](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, 40 Circuits, 0.38μm (15μ") Gold (Au) Selective Plating, without Press-fit Plastic Pegs, Lead-free

Documents:

[3D Model](#) [Product Specification PS-87761-100 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

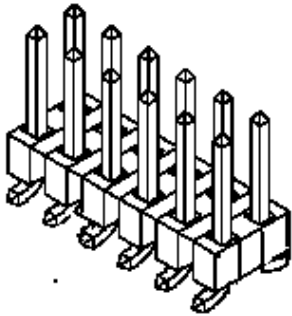
UL E29179

General

Product Family PCB Headers
Series [87759](#)
Application Board-to-Board
Overview [milligrid](#)
Product Name Milli-Grid™

Physical

Breakaway Yes
Circuits (Loaded) 40
Circuits (maximum) 40
Color - Resin Black
Durability (mating cycles max) 100
First Mate / Last Break No
Flammability 94V-0
Glow-Wire Compliant No
Guide to Mating Part No
Keying to Mating Part None
Lock to Mating Part None
Mated Height (in) 0.150 In
Mated Height (mm) 3.80 mm
Material - Metal Phosphor Bronze
Material - Plating Mating Gold
Material - Plating Termination Tin
Material - Resin Nylon
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
Polarized to Mating Part No
Polarized to PCB No
Shrouded No
Stackable No
Temperature Range - Operating -55°C to +105°C
Termination Interface: Style Surface Mount



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
[87759Series](#)

Mates With
[79107](#) Milli-Grid™ Receptacle, Vertical,
Through Hole. [79108](#) Milli-Grid™ Flex-to-
Board, Vertical Receptacle. Milli-Grid™
Receptacle, Surface Mount. [79109](#). [87381](#)

Electrical

Current - Maximum per Contact	2A
Voltage - Maximum	125V

Solder Process Data

Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	260

Material Info

Reference - Drawing Numbers

Packaging Specification	PK-89990-475
Product Specification	PS-87761-100
Sales Drawing	SD-87759-117, SD-87759-215

This document was generated on 05/25/2010

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F

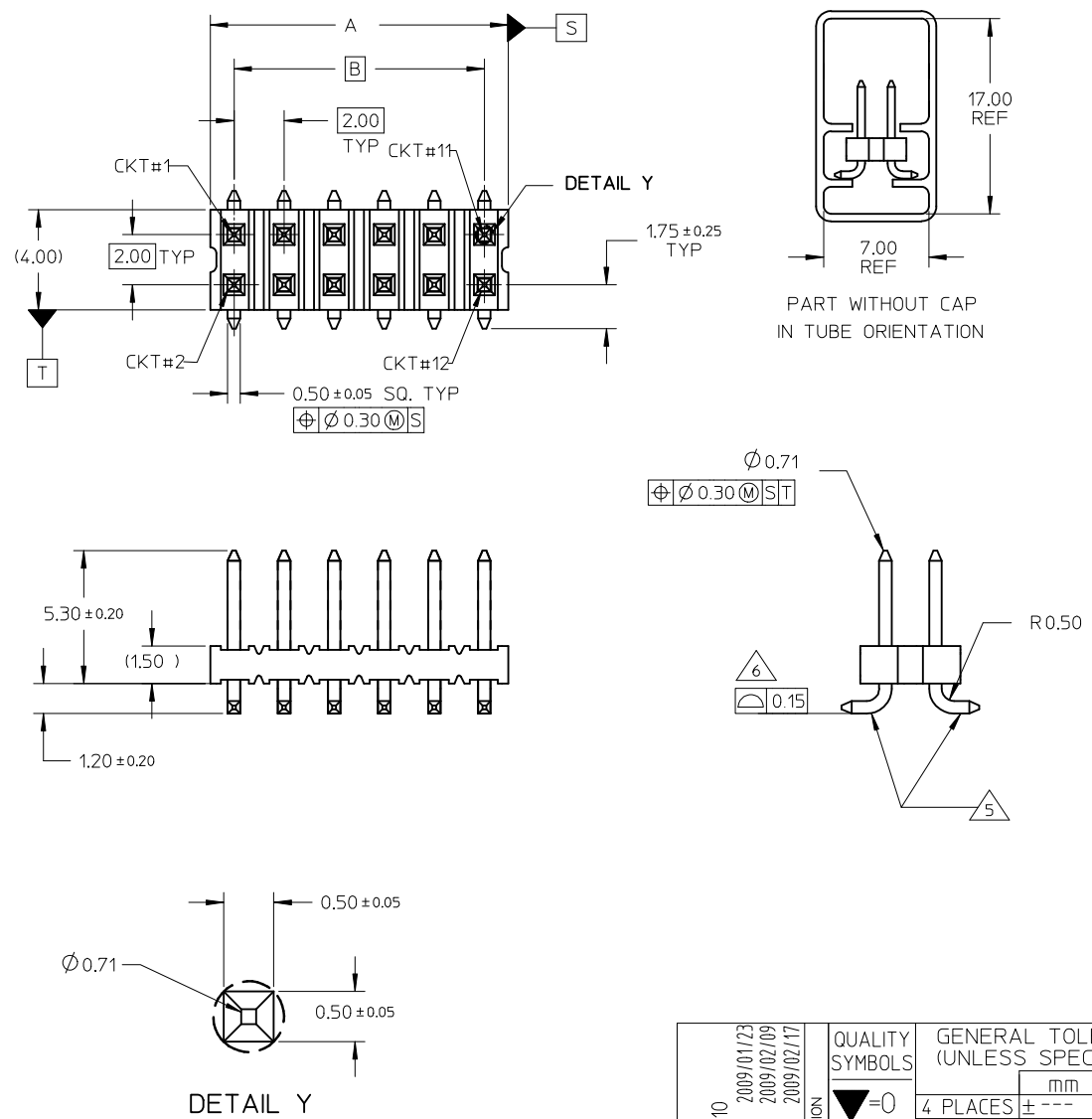
E

D

C

B

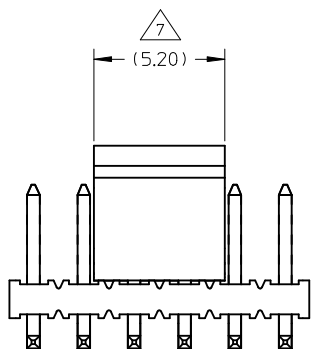
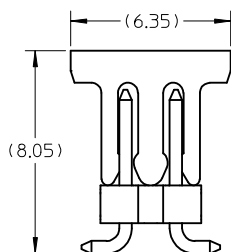
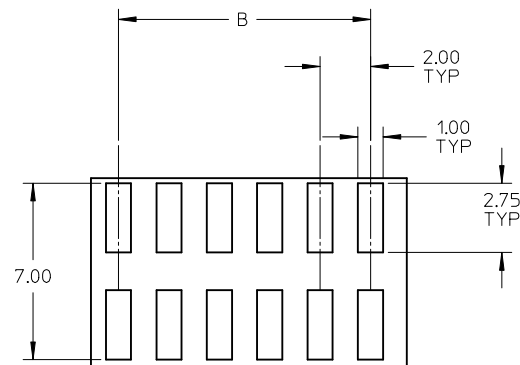
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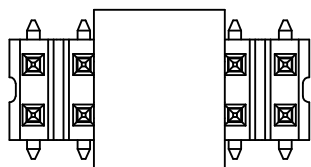
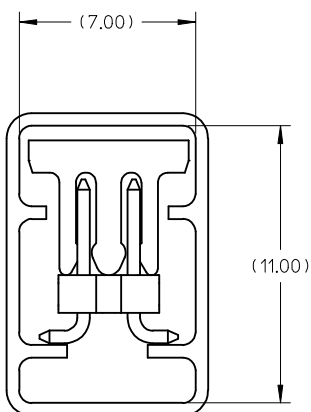
- NOTE:
1. MATERIAL:
HSG & CAP - NYLON, GLASS FILLED
UL 94V-0, COLOUR BLACK

PIN - 0.50 SQ PHOSPHOR BRONZE
 2. PLATING:
0.38um MIN GOLD PLATE AT CONTACT AREA,
TIN PLATE AT SOLDER AREA,
BOTH OVER NICKEL UNDERPLATE
 3. PIN PUSHOUT FORCE: 1KG MIN IN EITHER DIRECTION
 4. PRODUCT SPEC PS-87761-100 APPLIES.
 - 5 BEND DEPRESSION IS ACCEPTABLE SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF TAIL.
 - 6 COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A FLAT SURFACE.
 - 7 CAP TO BE LOCATED AS CENTRAL OF PART AS POSSIBLE
TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK & PLACE BY VACUUM SUCTION NOZZLE.
 8. FOR ILLUSTRATION PURPOSES, 12CKT IS SHOWN.
 - 9 CKT 4 & 6 IS CUT FROM CKT 8 & 12 RESPECTIVELY
ROUGH EDGES ARE EXPECTED ALONG THE CUTTING EDGES.
 - 10 PART TO BE PACKED IN TRAY ONLY.
 11. TUBE LENGTH IS 560MM REF STANDARD.

ADD. OPTION EC NO: S2009-0510 2009/01/23 DRAWN:ATSEE 2009/02/09 CHKD:SKANG 2009/02/17 APPR:MLONG		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 KSEE	DATE 2003/12/12	TITLE CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT				
B2		REV		4 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED			
				3 PLACES	± ---	± ---	KCLING	2004/01/12				
				2 PLACES	± 0.2	± ---	APPROVED BY	DATE	MOLEX	SD-87759-117	SHEET NO. 1 OF 6	
				1 PLACE	± ---	± ---	SKTOH	2004/01/12				
				ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.				
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE						
						SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					



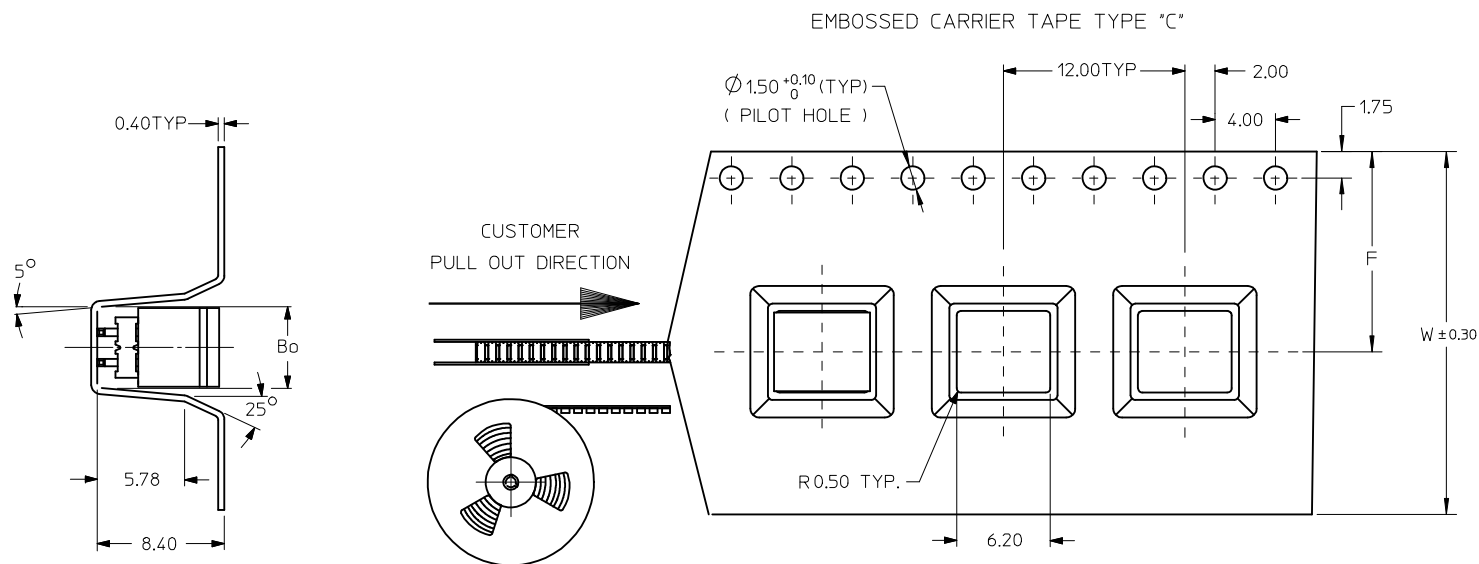
RECOMMENDED SOLDER PAD LAYOUT



ADD. OPTION EC NO: S2009-0510 DRAWN AT SEE CHK'D: SKANG APPR: MLONG 2009/01/23 2009/02/09 2009/02/17	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 KSEE	DATE 2003/12/12	TITLE CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT				
			4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2004/01/12					
			3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2004/01/12	MOLEX INCORPORATED SD-87759-117				
			2 PLACES	± 0.2	± ---	MATERIAL NO.	DOCUMENT NO.					
			1 PLACE	± ---	± ---	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS												

ADD. OPTION EC NO: S2009-0510 DRWNA:TSEE CHKD:SKANG APPR:MLONG 2009/01/23 2009/02/09 2009/02/17	DESCRIPTION B2	REV	QUALITY SYMBOLS <div>▽=0</div> <div>◇=0</div>	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION		
					mm	INCH	DRAWN BY KSEE	DATE 2003/12/12	CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT			
				4 PLACES	± ---	± ---	CHECKED BY	DATE				
				3 PLACES	± ---	± ---	KCL ING	2004/01/12				
				2 PLACES	± 0.2	± ---	APPROVED BY	DATE	MOLEX INCORPORATED SD-87759-117			
				1 PLACE	± ---	± ---	SKTOH	2004/01/12				
				ANGULAR ± 3 °		MATERIAL NO.	DOCUMENT NO.	SHEET NO.				
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87759-117		4 OF 6		
						SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

THIS TYPE OF CARRIER IS FOR CKT SIZE 8 AND BELOW.

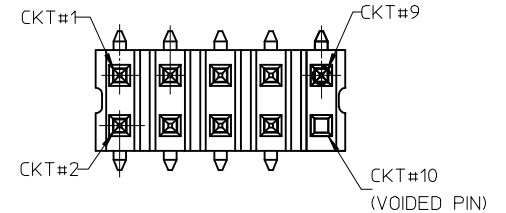


ADD. OPTION EC NO: S2009-0510 2009/01/23 DRWN:ATSEE 2009/02/09 CHKD:SKANG 2009/02/17 APPR:MLONG	DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY KSEE	DATE 2003/12/12	TITLE CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT				
			4 PLACES ± ---	± ---	CHECKED BY	DATE					
			3 PLACES ± ---	± ---	KCL ING	2004/01/12					
			2 PLACES ± 0.2	± ---	APPROVED BY	DATE					
			1 PLACE ± ---	± ---	SKTOH	2004/01/12	MOLEX MOLEX INCORPORATED				
			ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SD-87759-117		SHEET NO. 5 OF 6
REV B2			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE						
			SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

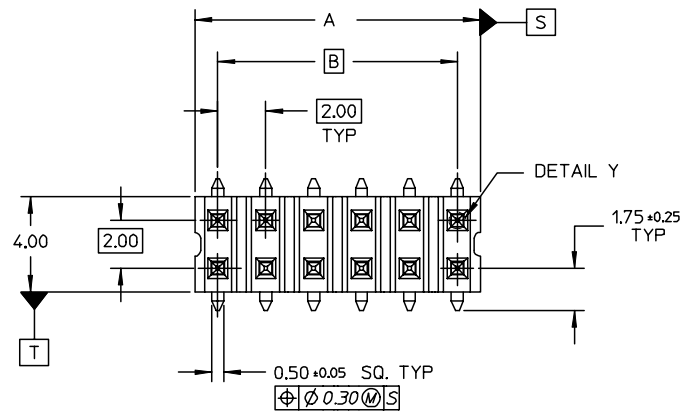
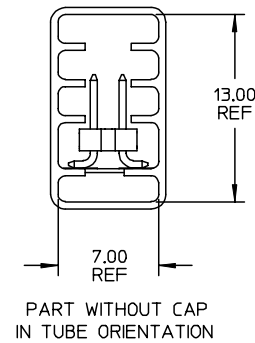
	10	9	8	7		6		5		4	3	2	1
	PART NUMBER WITHOUT CAP IN TUBE	PART NUMBER WITH CAP IN TUBE	PART NUMBER WITH CAP IN TAPE AND REEL.	CKT SIZE	VOID CKTS	A	B	Bo	F	So	W	EMBOSSED TYPE	
F	87759-0414 	87759-0464	87759-0474	4	--	NA	2.00	5.40	11.50	-	24.00	C	
	87759-0614 	87759-0664	87759-0674	6	--	NA	4.00	7.20	11.50	-	24.00	C	
	87759-0814	87759-0864	87759-0874	8	--	7.90	6.00	8.20	11.50	-	24.00	C	
E	87759-1014	87759-1064	87759-1074	10	--	9.90	8.00	10.20	11.50	-	24.00	A	
	87759-1002 	87759-1003 	87759-1004 	10	10	9.90	8.00	10.20	11.50	-	24.00	A	
	87759-1214	87759-1264	87759-1274	12	--	11.90	10.00	12.20	11.50	-	24.00	A	
D	87759-1414	87759-1464	87759-1474	14	--	13.90	12.00	14.20	11.50	-	24.00	A	
	87759-1614	87759-1664	87759-1674	16	--	15.90	14.00	16.20	14.20	28.40	32.00	B	
	87759-1814	87759-1864	87759-1874	18	--	17.90	16.00	18.20	14.20	28.40	32.00	B	
C	87759-2014	87759-2064	87759-2074	20	--	19.90	18.00	20.20	14.20	28.40	32.00	B	
	87759-2214	87759-2264	87759-2274	22	--	21.90	20.00	22.20	20.20	40.40	44.00	B	
	87759-2414	87759-2464	87759-2474	24	--	23.90	22.00	24.20	20.20	40.40	44.00	B	
B	87759-2614	87759-2664	87759-2674	26	--	25.90	24.00	26.20	20.20	40.40	44.00	B	
	87759-2814	87759-2864	87759-2874	28	--	27.90	26.00	28.20	20.20	40.40	44.00	B	
	87759-3014	87759-3064	87759-3074	30	--	29.90	28.00	30.20	20.20	40.40	44.00	B	
A	87759-3214	87759-3264	87759-3274	32	--	31.90	30.00	32.20	20.20	40.40	44.00	B	
	87759-3414	87759-3464	87759-3474	34	--	33.90	32.00	34.20	26.20	52.40	56.00	B	
	87759-3614	87759-3664	87759-3674	36	--	35.90	34.00	36.20	26.20	52.40	56.00	B	
	87759-3814	87759-3864	87759-3874	38	--	37.90	36.00	38.20	26.20	52.40	56.00	B	
	87759-4014	87759-4064	87759-4074	40	--	39.90	38.00	40.20	26.20	52.40	56.00	B	
	87759-4214	87759-4264	87759-4274	42	--	41.90	40.00	42.20	26.20	52.40	56.00	B	
	87759-4414	87759-4464	87759-4474	44	--	43.90	42.00	44.20	26.20	52.40	56.00	B	
	87759-4614	87759-4664	87759-4674	46	--	45.90	44.00	46.20	26.20	52.40	56.00	B	
	87759-4814	87759-4864	87759-4874	48	--	47.90	46.00	48.20	26.20	52.40	56.00	B	
	87759-5014	87759-5064	87759-5074	50	--	49.90	48.00	50.20	34.20	68.40	72.00	B	

NOTES:

 VOIDED PIN CKT#10 FOR PART#87759-1002



A	ADD. OPTION EC NO: S2009-0510 DRAWN AT SEE CHYD-SKANG APPR: MLONG 2009/01/23 2009/02/09 2009/02/17		DESCRIPTION REV	QUALITY SYMBOLS <div>▽=0</div> <div>◻=0</div>	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	<div>⊕</div> THIRD ANGLE PROJECTION	CUSTOM HEADER MGRID, 2MM DUAL ROW HDR. SMT <div>MOLEX</div> MOLEX INCORPORATED SD-87759-117	SHEET NO. 6 OF 6	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
							DRAWN BY KSEE		DATE 2003/12/12						TITLE	
							CHECKED BY KCL ING		DATE 2004/01/12							
							APPROVED BY SKTOH		DATE 2004/01/12							
							MATERIAL NO.		DOCUMENT NO.							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					SEE TABLE											
B2							SIZE A3									
fb_frame_A3_P_AM.T Rev. E 2006/04/15																
9 8 7 6 5 4 3 2 1																



NOTE:

1. MATERIAL:

HSG & CAP - HIGH TEMPERATURE THERMOPLASTIC,
UL 94V-0, COLOUR BLACK

PIN - 0.50 SQ PHOSPHOR BRONZE

2. PLATING:

**84 - 0.38um MIN GOLD PLATE AT CONTACT AREA,
TIN PLATE AT SOLDER AREA,
BOTH OVER NICKEL UNDERPLATE

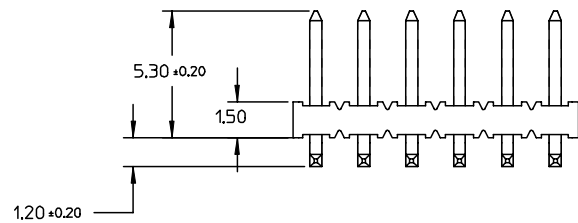
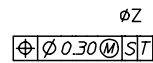
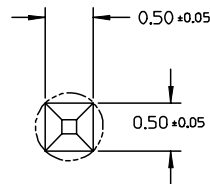
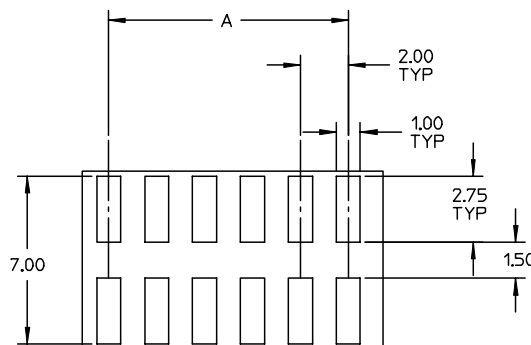
**85 - 0.76um MIN GOLD PLATE AT CONTACT AREA,
TIN PLATE AT SOLDER AREA,
BOTH OVER NICKEL UNDERPLATE

(** - REPRESENTS DIFFERENT CKT SIZE, SEE TABLE AT SHT 3)

3. PIN PUSHOUT FORCE: 1KG MIN IN EITHER DIRECTION

4. PRODUCT SPEC PS-87761-100 APPLIES.

- 5 BEND DEPRESSION IS ACCEPTABLE SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF TAIL.
- 6 COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE.
- 7 CAP TO BE LOCATED AS CENTRAL OF PART AS POSSIBLE TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK & PLACE BY VACUUM SUCTION NOZZLE.
8. FOR ILLUSTRATION PURPOSES, 12CKT IS SHOWN. 18CKT IS SHOWN ON SHT 2 FOR TAPE & REEL.
9. TUBE LENGTH IS 560MM REF STANDARD.

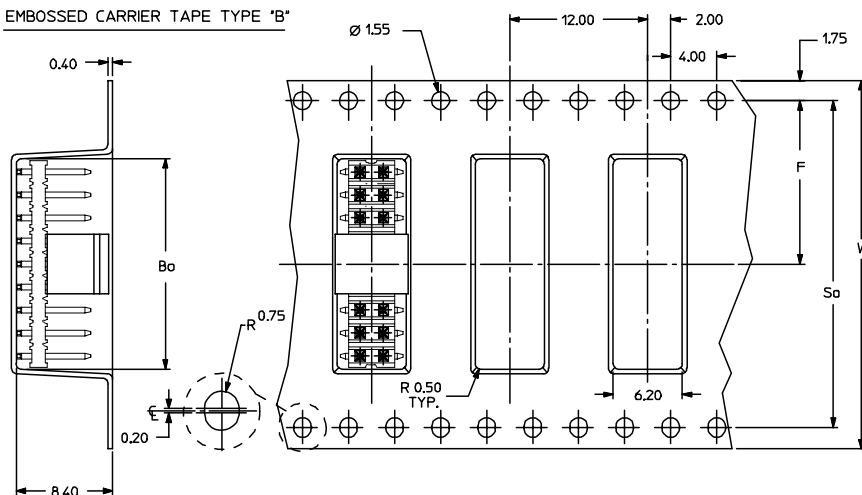
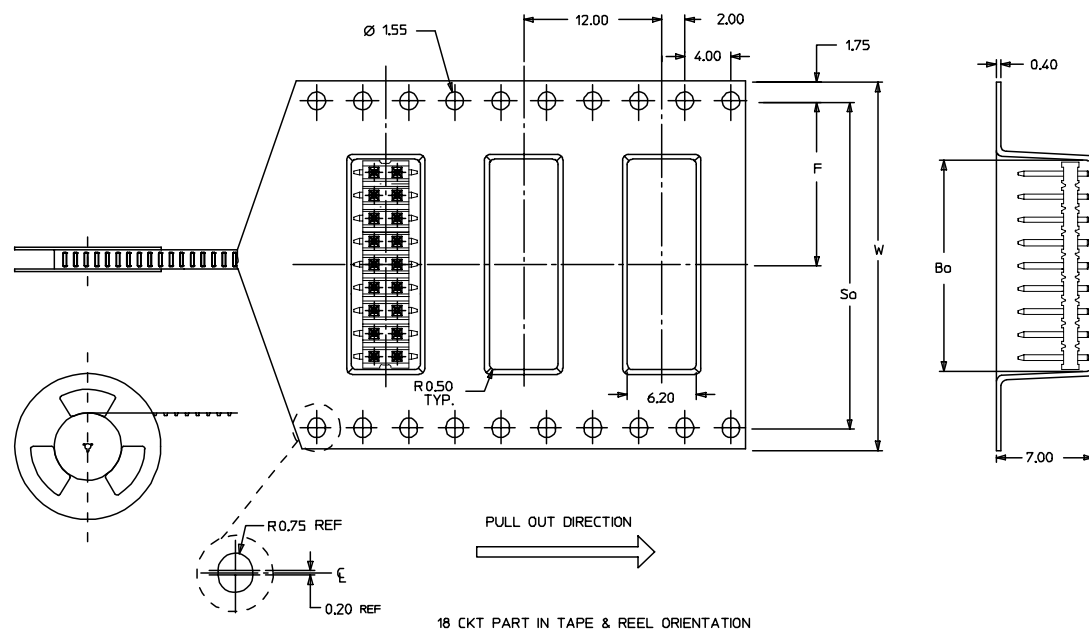


RECOMMENDED SOLDER PAD LAYOUT

DETAIL Y

EC NO: S2004-0293 DRWN:KSEE 2004/01/30 CHKD:KCLING 2004/01/30 APPR:SKTOH 2004/02/05 A	DESCRIPTION	QUALITY SYMBOLS ▽ = 0 ◻ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY		
REV					DIMENSION STYLE		TITLE SALES DRAWING MGRID 2MM DUAL ROW SMT HDR			
					MM ONLY					
			4 PLACES ± --- ± ---		DRAWN BY KSEE		DATE 2003/12/23			
			3 PLACES ± --- ± ---		CHECKED BY		DATE			
			2 PLACES ± 0.2 ± ---		KCLING		2004/01/12			
1 PLACE ± --- ± ---		APPROVED BY		DATE		MATERIAL NO.		DOCUMENT NO.	SHEET NO.	
ANGULAR ± 3 °		SKTOH		2004/01/12		SEE TABLE		SD-87759-215	1 OF 3	
DRAFT WHERE APPLICABLE		MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
				B						

A



EC NO: S2004-0293 DRAWN:KSEE 2004/01/30 CHKD:KCLING 2004/01/30 APPR:SKTOH 2004/02/05	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY		
		- 0 - 0	mm	INCH	DIMENSION STYLE		TITLE SALES DRAWING MGRID 2MM DUAL ROW SMT HDR			
			4 PLACES ± --- ± ---		MM ONLY					
			3 PLACES ± --- ± ---		DRAWN BY DATE		MOLEX INCORPORATED			
			2 PLACES ± 0.2 ± ---		KSEE 2003/12/23					
1 PLACE ± --- ± ---		CHECKED BY DATE								
		ANGULAR ± 3 °		KCLING 2004/01/12	MATERIAL NO.		DOCUMENT NO.	SHEET NO.		
		DRAFT WHERE APPLICABLE		APPROVED BY DATE	SKTOH 2004/01/12		SEE TABLE	SD-87759-215	2 OF 3	
		MUST REMAIN WITHIN DIMENSIONS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							B

	10	9	8		7		6		5	4	3	2	87759
	PART NUMBER WITHOUT CAP IN TUBE	PART NUMBER WITHOUT CAP IN TAPE & REEL.	CKT SIZE	A	B	Bo	F	So	W	EMBOSSED TYPE			
F	87759-4014	87759-4084	40	39.90	38.00	40.20	26.20	52.40	56.00	B			
	87759-4015	87759-4085	40	39.90	38.00	40.20	26.20	52.40	56.00	B			
E													
D													
C													
B													
A													