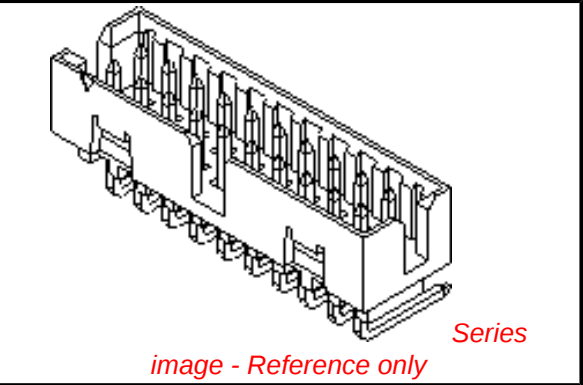


PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878333220](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 32 Circuits, 0.38µm (15µ") Gold (Au) Plating, without PCB Locator, with Locking Windows, Center Polarization Slot, Tube

Documents:	
3D Model	Product Specification PS-87831-027 (PDF)
Drawing (PDF)	RoHS Certificate of Compliance (PDF)



Agency Certification	
CSA	LR19980
UL	E29179
General	
Product Family	PCB Headers
Series	87833
Application	Wire-to-Board
Comments	Contact Molex for application in automotive industry
Overview	milligrid
Product Name	Milli-Grid™
Physical	
Breakaway	No
Circuits (Loaded)	32
Circuits (maximum)	32
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	Yes
Material - Metal	Phosphor Bronze
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	Nylon
Number of Rows	2
Orientation	Right Angle
PC Tail Length (in)	0.085 In
PC Tail Length (mm)	2.16 mm
PCB Locator	No
PCB Retention	None
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.60 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)	15
Plating min: Mating (µm)	0.38
Plating min: Termination (µin)	75
Plating min: Termination (µm)	1.88

EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Contains SVHC: No
Halogen-Free
Status
Not Halogen-Free

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
[87833Series](#)

Mates With
[50394](#) Wire-to-Board Terminals. [51110](#) Wire-to-Board Crimp Housing. [87568](#) Wire-to-Board IDT Housings. [79107](#) Board-to-Board Top Entry Through Hole Receptacle. [79108](#) Board-to-Board FFC/FPC Top Entry Through Hole Receptacle. L

Polarized to Mating Part	Side Slots (2)
Polarized to PCB	No
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Through Hole

Electrical

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

Solder Process Data

Duration at Max. Process Temperature (seconds)	11
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	265

Material Info

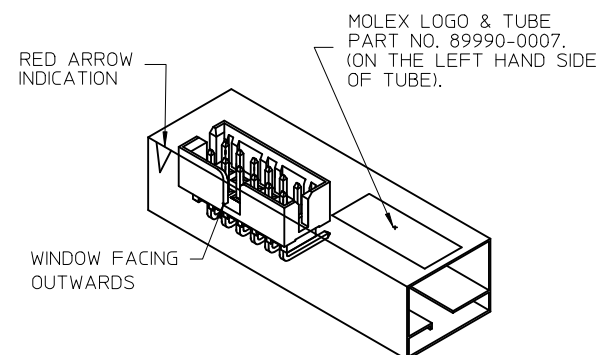
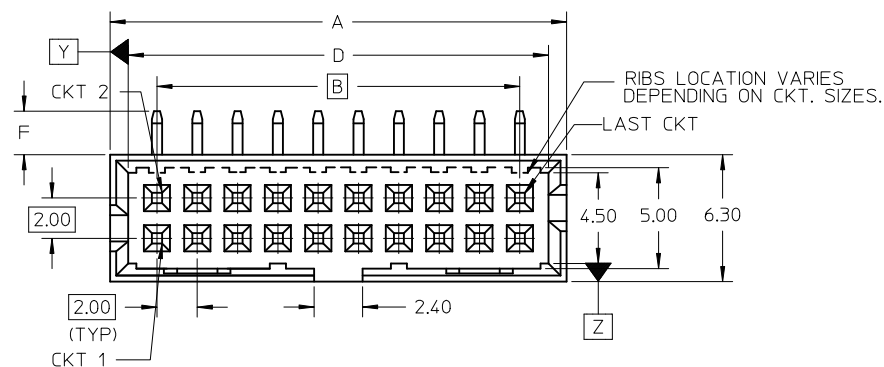
Reference - Drawing Numbers

Product Specification	PS-87831-027
Sales Drawing	SD-87833-010

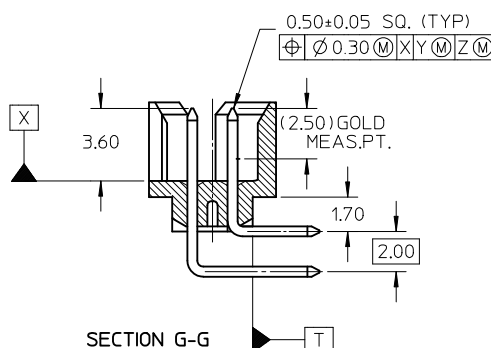
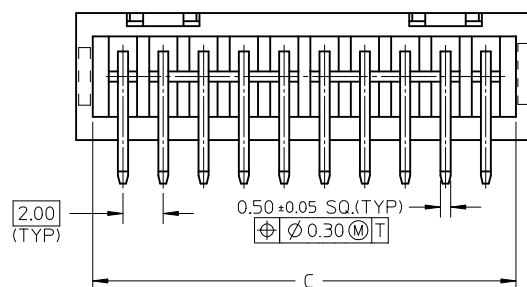
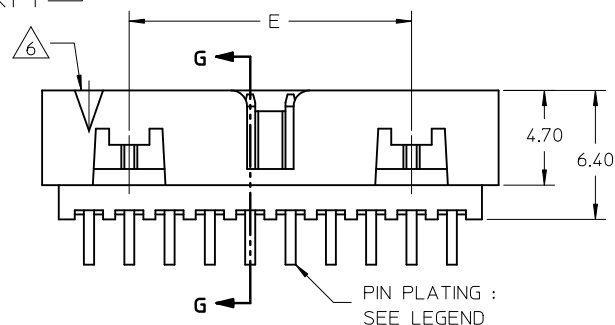
This document was generated on 05/25/2010

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10 9 8 7 6 5 4 3 2 1

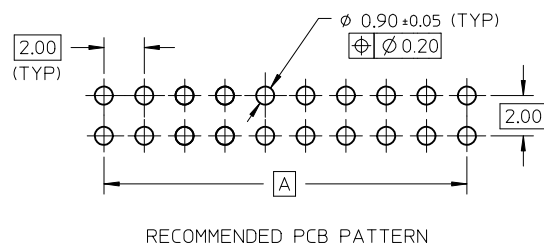


REF: ORIENTATION OF PART IN TUBE
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



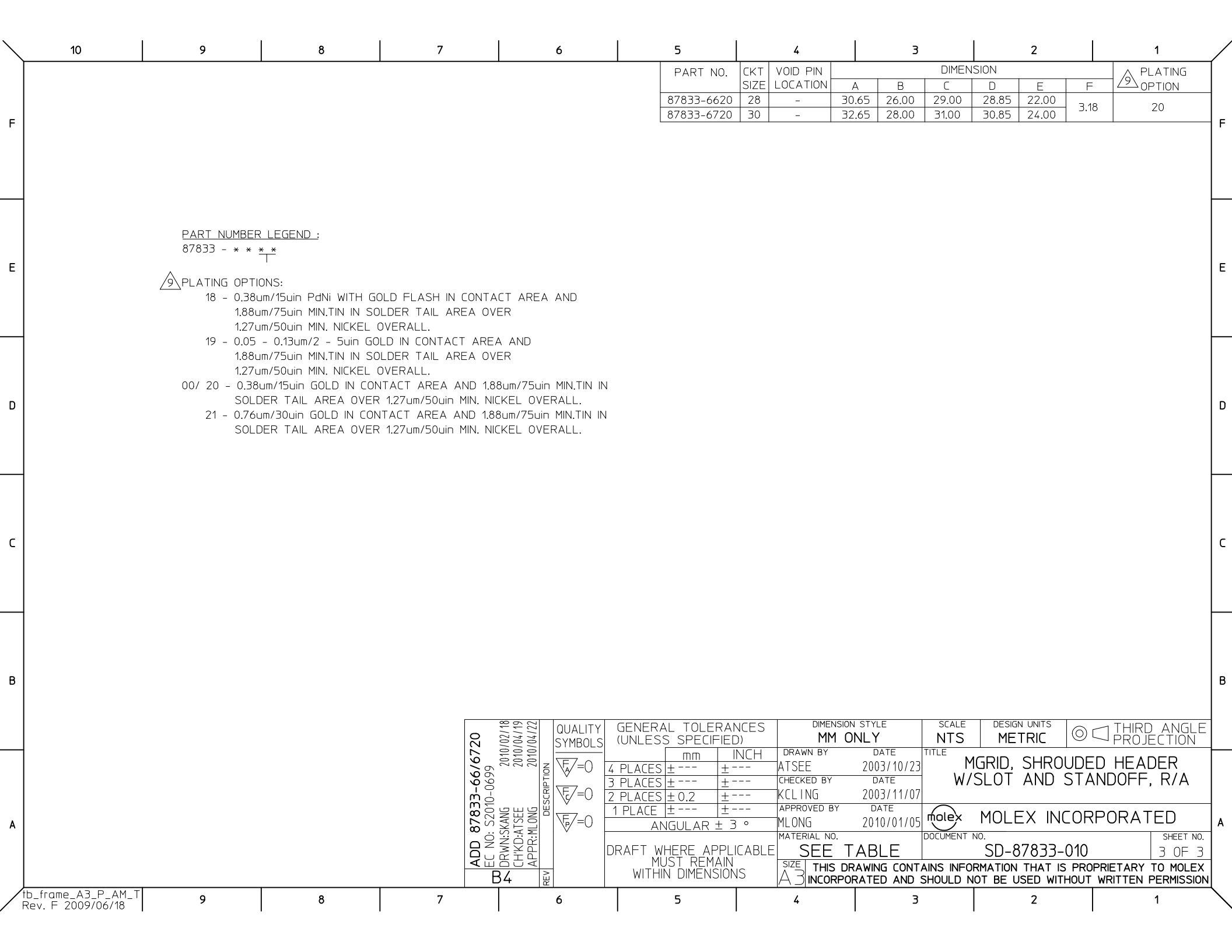
NOTES:

1. FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
2. MATERIAL :
HOUSING : NYLON 46, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
3. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
6. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
7. THIS HEADER MATES WITH MOLEX:
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
8. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
9. PLATING SPECIFICATION REFERRED TO SHEET 2.



ADD 87833-66/6720 EC NO: S2010-0699 DRWN:SKANG CHKD:ATSEE APPR:MLONG B4	DESCRIPTION 2010/02/18 2010/04/19 2010/04/22	QUALITY SYMBOLS ▽_F=0 ▽_C=0 ▽_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION			
			4 PLACES 3 PLACES 2 PLACES 1 PLACE	mm INCH	DRAWN BY ATSEE	DATE 2003/10/23	TITLE MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A					
					CHECKED BY KCL ING	DATE 2003/11/07						
					ANGULAR ± 3 °		APPROVED BY MLONG	DATE 2010/01/05		 MOLEX INCORPORATED		
					DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE					
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							
F						PART NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION						PLATING OPTION	F	
						A	B	C	D	E	F						
E	PLS REFER TO PART 87833-***3* FOR CENTER LOCKING SLOT OPTION.					87833-04**	4	-	6.65	2.00	5.00	4.85	——	2.16	19,20 OR 21	E	
						87833-06**	6	-	8.65	4.00	7.00	6.85	——				
						87833-08**	8	-	10.65	6.00	9.00	8.85	——		18,19,20 OR 21	19,20 OR 21	
						87833-10**	10	-	12.65	8.00	11.00	10.85	——				
						87833-12**	12	-	14.65	10.00	13.00	12.85	——				
						87833-14**	14	-	16.65	12.00	15.00	14.85	8.00				
						87833-16**	16	-	18.65	14.00	17.00	16.85	10.00				
						87833-18**	18	-	20.65	16.00	19.00	18.85	12.00				
						87833-20**	20	-	22.65	18.00	21.00	20.85	14.00				
						87833-22**	22	-	24.65	20.00	23.00	22.85	16.00				
						87833-24**	24	-	26.65	22.00	25.00	24.85	18.00				
						87833-26**	26	-	28.65	24.00	27.00	26.85	20.00				
						87833-28**	28	-	30.65	26.00	29.00	28.85	22.00				
						87833-30**	30	-	32.65	28.00	31.00	30.85	24.00				
						87833-32**	32	-	34.65	30.00	33.00	32.85	26.00				
						87833-34**	34	-	36.65	32.00	35.00	34.85	28.00				
						87833-36**	36	-	38.65	34.00	37.00	36.85	30.00				
						87833-38**	38	-	40.65	36.00	39.00	38.85	32.00				
						87833-40**	40	-	42.65	38.00	41.00	40.85	34.00				
						D						87833-42**	42		-		44.65
87833-44**	44	-	46.65	42.00	45.00							44.85	38.00				
87833-46**	46	-	48.65	44.00	47.00							46.85	40.00	21			
87833-48**	48	-	50.65	46.00	49.00							48.85	42.00				
87833-50**	50	-	52.65	48.00	51.00							50.85	44.00	20			
87833-7000	34	21	36.65	32.00	35.00							34.85	28.00				
87833-5121	26	14	28.65	24.00	27.00							26.85	20.00	20			
87833-5120	10	7	12.65	8.00	11.00							10.85	——				
87833-5520	40	21	42.65	38.00	41.00							40.85	34.00				
87833-5620	20	14	22.65	18.00	21.00							20.85	14.00				
C						87833-5720	24	13	26.65	22.00	25.00	24.85	18.00	3.18	20 OR 21	C	
						87833-5820	14	1	16.65	12.00	15.00	14.85	8.00				
						87833-63**	8	-	10.65	6.00	9.00	8.85	——		20		
						87833-53**	14	-	16.65	12.00	15.00	14.85	8.00				
						87833-5420	34	-	36.65	32.00	35.00	34.85	28.00				
						87833-5920	4	-	6.65	2.00	5.00	4.85	——				
						87833-6020	12	-	14.65	10.00	13.00	12.85	——				
						87833-6120	16	-	18.65	14.00	17.00	16.85	10.00				
						87833-6220	18	-	20.65	16.00	19.00	18.85	12.00				
						87833-6420	6	-	8.65	4.00	7.00	6.85	-				
87833-6520	20	-	22.65	18.00	21.00	20.85	14.00										
B																B	
A																A	
ADD 87833-66/6720 EC NO: S2010-0699 DRWN:SKANG 2010/02/18 CHKD:ATSEE 2010/04/19 APPR:MLONG 2010/04/22 B4						QUALITY SYMBOLS F _A =0 F _C =0 F _P =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 ATSEE 2003/10/23 CHECKED BY DATE KCL ING 2003/11/07 APPROVED BY DATE MLONG 2010/01/05 MATERIAL NO. SEE TABLE	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A		MOLEX INCORPORATED		SD-87833-010	SHEET NO. 2 OF 3
fb_frame_A3_P_AM_T Rev. F 2009/06/18							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 NO.	CKT SIZE	VOID PIN LOCATION	DIMENSION						9 PLATING OPTION
			A	B	C	D	E	F	
87833-6620	28	-	30.65	26.00	29.00	28.85	22.00	3.18	20
87833-6720	30	-	32.65	28.00	31.00	30.85	24.00		

PART NUMBER LEGEND :
87833 - * * * * *

- 9 PLATING OPTIONS:
- 18 - 0.38um/15uin PdNi WITH GOLD FLASH IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
 - 19 - 0.05 - 0.13um/2 - 5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
 - 00/ 20 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
 - 21 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.

ADD 87833-66/6720 EC NO: S2010-0699 DRWN:SKANG 2010/02/18 CHKD:ATSEE 2010/04/19 APPR:MLONG 2010/04/22 B4	DESCRIPTION QUALITY SYMBOLS F _A =0 F _C =0 F _P =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION 			
				MM ONLY		NTS	METRIC				
				DRAWN BY	DATE	TITLE MGRID, SHROUDED HEADER W/SLOT AND STANDOFF, R/A					
				ATSEE	2003/10/23						
				CHECKED BY	DATE	MOLEX INCORPORATED					
				KCL ING	2003/11/07						
				APPROVED BY	DATE	MOLEX INCORPORATED					
				MLONG	2010/01/05						
				ANGULAR ± 3 °		DOCUMENT NO.		SHEET NO.			
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SD-87833-010		3 OF 3			
REV				SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						