

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0878322423](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 24 Circuits, 0.76µm (30µ") Gold (Au) Plating, Pick-and-Place Cap, with Locking Windows and Center Polarization Slot, PCB Locator, 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 [87832](#)
Application Wire-to-Board
Comments With Cap|Contact Molex for application in automotive industry
Overview [milligrid](#)
Product Name Milli-Grid™

Physical

Breakaway No
Circuits (Loaded) 24
Circuits (maximum) 24
Color - Resin Black
First Mate / Last Break No
Flammability 94V-0
Glow-Wire Compliant No
Guide to Mating Part No
Keying to Mating Part Yes
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 Vertical
PCB Locator Yes
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) 30
Plating min: Mating (µm) 0.76
Plating min: Termination (µin) 75
Plating min: Termination (µm) 1.88
Polarized to Mating Part Side Slots (2)
Polarized to PCB No
Robotic Placement Pick and Place Cap
Shrouded Fully

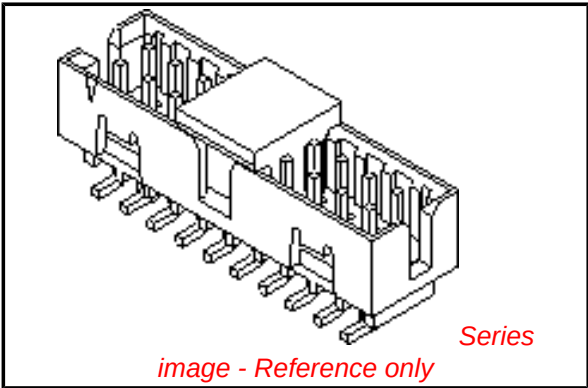


image - Reference only

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.

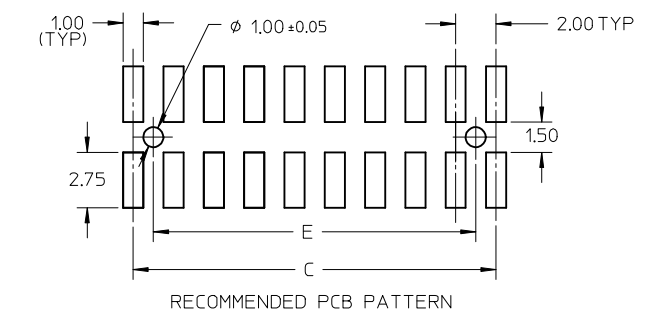
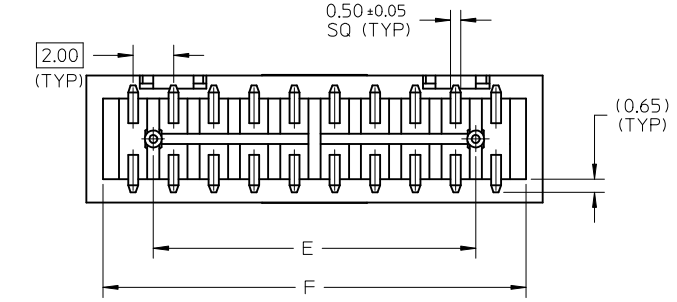
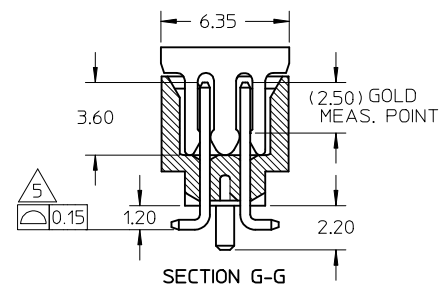
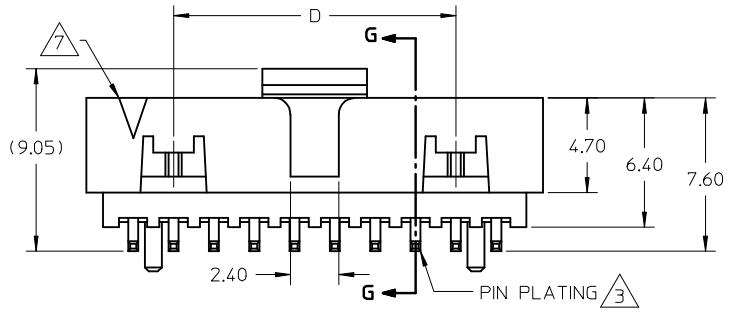
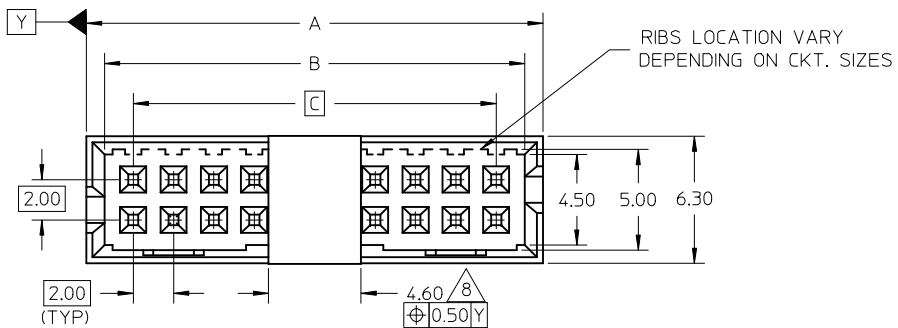
Search Parts in this Series
[87832Series](#)

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

Stackable	No
Temperature Range - Operating	-55°C to +105°C
Termination Interface: Style	Surface Mount
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	1
Process Temperature max. C	260
Material Info	
Reference - Drawing Numbers	
Product Specification	PS-87831-027
Sales Drawing	SD-87832-007

This document was generated on 05/25/2010

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CKT SIZE	DIMENSION					
	A	B	C	D	E	F
4	6.65	4.85	2.00	—	—	5.00
6	8.65	6.85	4.00	—	2.00	7.00
8	10.65	8.85	6.00	—	4.00	9.00
10	12.65	10.85	8.00	—	6.00	11.00
12	14.65	12.85	10.00	—	8.00	13.00
14	16.65	14.85	12.00	8.00	10.00	15.00
16	18.65	16.85	14.00	10.00	12.00	17.00
18	20.65	18.85	16.00	12.00	14.00	19.00
20	22.65	20.85	18.00	14.00	16.00	21.00
22	24.65	22.85	20.00	16.00	18.00	23.00
24	26.65	24.85	22.00	18.00	20.00	25.00
26	28.65	26.85	24.00	20.00	22.00	27.00
28	30.65	28.85	26.00	22.00	24.00	29.00
30	32.65	30.85	28.00	24.00	26.00	31.00
32	34.65	32.85	30.00	26.00	28.00	33.00
34	36.65	34.85	32.00	28.00	30.00	35.00
36	38.65	36.85	34.00	30.00	32.00	37.00
38	40.65	38.85	36.00	32.00	34.00	39.00
40	42.65	40.85	38.00	34.00	36.00	41.00
42	44.65	42.85	40.00	36.00	38.00	43.00
44	46.65	44.85	42.00	38.00	40.00	45.00
46	48.65	46.85	44.00	40.00	42.00	47.00
48	50.65	48.85	46.00	42.00	44.00	49.00
50	52.65	50.85	48.00	44.00	46.00	51.00

ADD 34CKT T&R P/N

EC NO: S2009-0642

DRWN:SKANG

CHKD:ATSEE

APPR:MLONG

2009/03/11

2009/03/11

2009/03/18

DESCRIPTION

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

DRAWN BY ATSEE

CHECKED BY KCL ING

APPROVED BY SKTOH

DATE 2003/10/14

DATE 2003/11/07

DATE 2003/11/07

SCALE

NTS

DESIGN UNITS

METRIC

THIRD ANGLE PROJECTION

TITLE

MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R

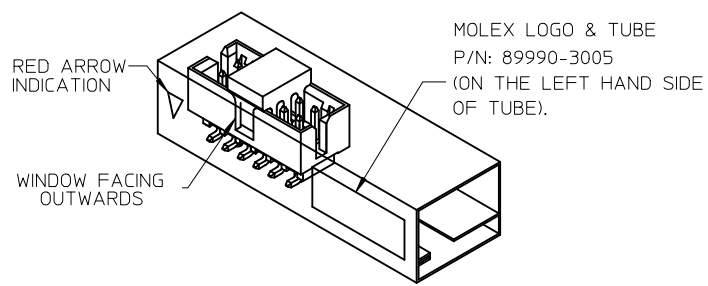
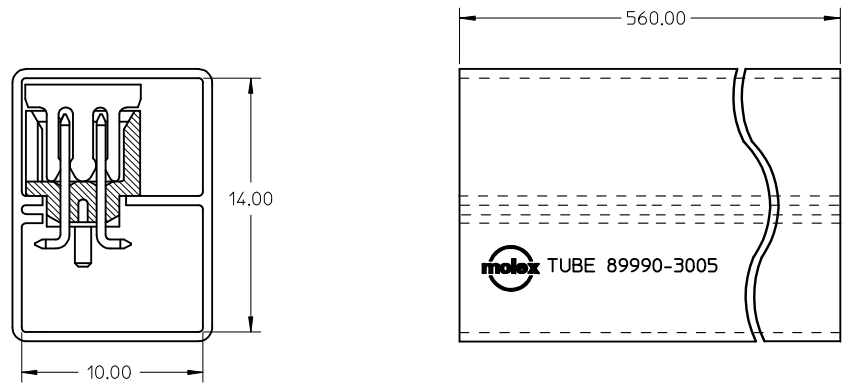
MOLEX INCORPORATED

SD-87832-007

1 OF 4

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

WITH CAP
TUBE PACKAGING



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

ADD 34CKT T&R P/N EC NO: S2009-0642 DRWN:SKANG 2009/03/11 CHKD:ATSEE 2009/03/11 APPR:MLONG 2009/03/18		DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			=0 =0		mm	INCH	DRAWN BY	DATE	TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R	MOLEX INCORPORATED	MATERIAL NO.	DOCUMENT NO.	SHEET NO. 2 OF 4
				4 PLACES	± ---	± ---	ATSEE	2003/10/14					
				3 PLACES	± ---	± ---	CHECKED BY	DATE					
A9			2 PLACES	± 0.2	± ---	KCLING	2003/11/07	MOLEX INCORPORATED	SD-87832-007				
			1 PLACE	± ---	± ---	APPROVED BY	DATE						
			ANGULAR ± 3 °			SKTOH	2003/11/07						
			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

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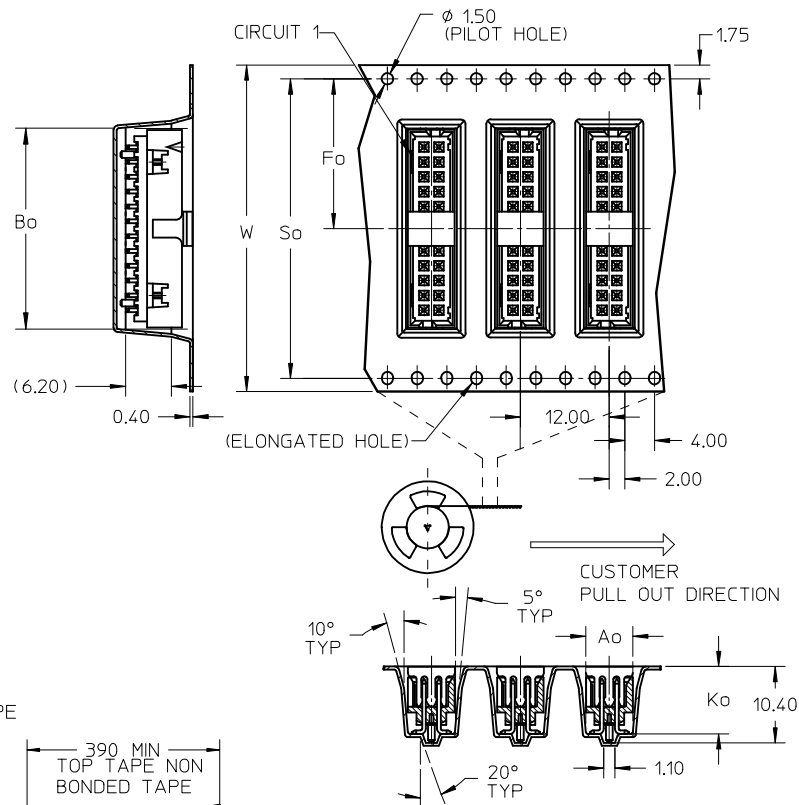
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2

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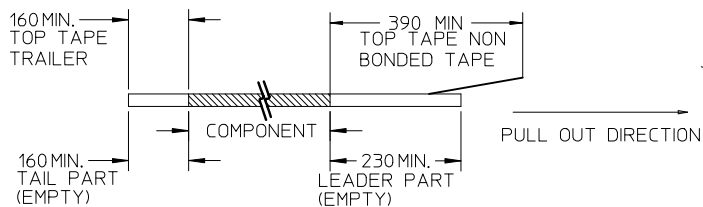
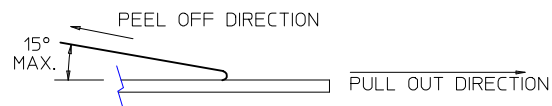
EMBOSSED CARRIER TAPE LAYOUT OPTION A

24 CKT USE FOR ILLUSTRATION ONLY



NOTES:

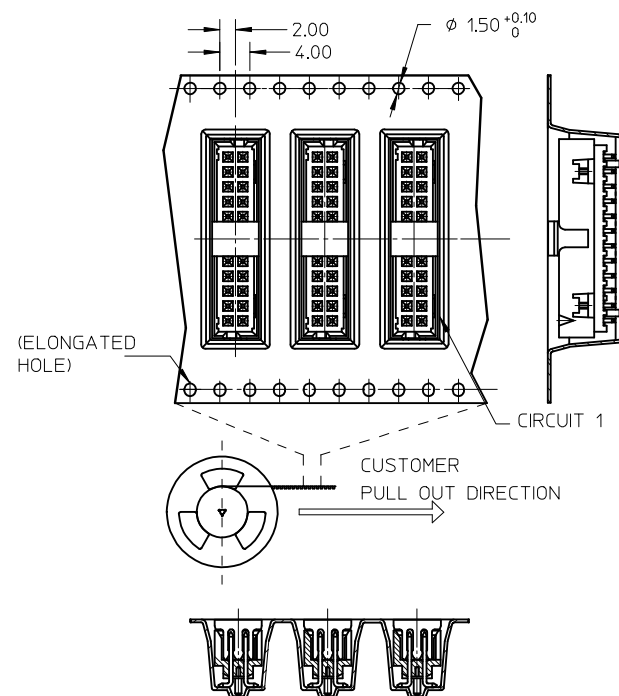
1. LEADER AND TRAILER TAPE

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.

EMBOSSED CARRIER TAPE LAYOUT OPTION B

24 CKT USE FOR ILLUSTRATION ONLY



ADD 34CKT T&R P/N EC NO: S2009-0642 DRWN:SKANG CHKD:ATSEE APPR:MLONG 2009/03/11 2009/03/11 2009/03/18	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 ATSEE	DATE 2003/10/14	TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R				
			4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2003/11/07					
			3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2003/11/07	MOLEX INCORPORATED				
			2 PLACES	± 0.2	± ---	MATERIAL NO. SEE TABLE						
1 PLACE		± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
ANGULAR ± 3 °												

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10		9		8		7		6		5		4		3		2		1													
F	PLS REFER TO PART 87832-**09 FOR CENTER LOCKING SLOT OPTION.																		REG OPTION	P/N W/O CAP IN TUBE	P/N W/CAP IN TUBE (SHEET 2)	P/N W/CAP TAPE & REEL (SHEET 3)	CKT SIZE	DIMENSION						PACKAGING OPTION (SHEET 3)	
																								W	Fo	Bo	So	Ao	Ko		
																			NO	87832-0421	87832-0423	87832-5123	04	16.00	7.50	7.15	-	6.40	9.30	A	
																			YES	87832-0621	87832-0623	87832-5223	06	24.00	11.50	9.15	-	6.40	9.30	A	
																			YES	87832-0821	87832-0823	87832-5323	08	24.00	11.50	11.05	-	6.40	9.30	A	
																			YES	87832-1021	87832-1023	87832-5423	10	24.00	11.50	13.05	-	6.40	9.30	A	
																			YES	87832-1221	87832-1223	87832-5523	12	32.00	14.20	15.15	28.40	6.40	9.30	A	
																			YES	87832-1421	87832-1423	87832-5623	14	32.00	14.20	17.05	28.40	6.40	9.30	A	
																			YES	87832-1621	87832-1623	87832-5723	16	32.00	14.20	19.05	28.40	6.40	9.30	A	
																			YES	87832-1821	87832-1823	87832-5823	18	44.00	20.20	21.05	40.40	6.40	9.30	A	
																			YES	87832-2021	87832-2023	87832-5923	20	44.00	20.20	23.05	40.40	6.40	9.30	A	
																			YES	87832-2221	87832-2223	87832-6023	22	44.00	20.20	25.05	40.40	6.40	9.30	A	
																			YES	87832-2421	87832-2423	87832-6123	24	44.00	20.20	27.05	40.40	6.40	9.30	A	
																			YES	87832-2621	87832-2623	87832-6223	26	44.00	20.20	29.05	40.40	6.40	9.30	A	
																			YES	87832-2821	87832-2823	87832-6323	28	56.00	26.20	31.05	52.40	6.40	9.30	A	
																			YES	87832-3021	87832-3023	87832-6423	30	56.00	26.20	33.05	52.40	6.40	9.30	A	
																			D	YES	87832-3221	87832-3223	--	32	--	--	--	--	--	--	-
																				YES	87832-3421	87832-3423	87832-6623	34	56.00	26.20	37.05	52.40	6.40	9.30	A
																				YES	87832-3621	87832-3623	--	36	--	--	--	--	--	--	-
YES	87832-3821	87832-3823	--	38	--	--	--	--	--	--	-																				
C	YES	87832-4021	87832-4023	87832-6923	40	56.00	26.20	43.05	52.40	6.40	9.30	A																			
	YES	87832-4221	87832-4223	--	42	--	--	--	--	--	--	-																			
	YES	87832-4421	87832-4423	87832-7123	44	56.00	26.20	46.80	52.40	6.40	9.30	A																			
	YES	87832-4621	87832-4623	--	46	--	--	--	--	--	--	-																			
C	YES	87832-4821	87832-4823	--	48	--	--	--	--	--	--	-																			
	YES	87832-5021	87832-5023	87832-7423	50	72.00	34.20	53.05	68.40	6.40	9.30	A																			
	YES	--	--	87832-9423	10	24.00	11.50	13.05	-	6.40	9.30	B																			
B	NOTES: 1. FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN. 2. MATERIAL : HOUSING & CAP : 30% G.F., NYLON 46, UL94V-0, COLOR BLACK. PIN : 0.50MM SQ.PHOSPHOR BRONZE. 3. PLATING : 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL. 4. PRODUCT SPECIFICATION PS-87831-027 APPLIES. 5. COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE. 6. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE. 7. CKT 4 & 6 HAS NO IDENTIFICATION TAG. 8. POSITION OF CAP TO BE LOCATED AT CENTER OF DIMENSION 'A' REGARDLESS OF CIRCUIT SIZE. 9. TOP SURFACE OF CAP TO BE FLAT FOR THE PURPOSE OF PICK-&-PLACE BY VACUUM SUCTION NOZZLE. 10. THIS HEADER MATES WITH MOLEX: a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES. b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES. 11. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6. 12. PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG.																														
	A	ADD 34CKT T&R P/N		EC NO: S2009-0642	DRWN:SKANG	2009/03/11	CHKD:ATSEE	2009/03/11	APPR:MLONG	2009/03/18	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 DRAWN BY DATE ATSEE 2003/10/14 CHECKED BY DATE KCLING 2003/11/07 APPROVED BY DATE SKTOH 2003/11/07 MATERIAL NO. SEE TABLE SIZE A3	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE MGRID, SHROUDED HEADER SMT, W/PEGS/CAP FOR PICK & PLACE IN TUBE AND T&R MOLEX INCORPORATED SD-87832-007	SHEET NO. 4 OF 4												
		A9																													
	tb_frame_A3_P_AM_T Rev. F 2006/04/15																														