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Part Number: [0878323014](#)
Status: **Active**
Overview: [milligrid](#)
Description: 2.00mm (.079") Pitch Milli-Grid™ Header, Surface Mount, Vertical, Shrouded, Lead-free, 30 Circuits, 0.38µm (15µ") Gold (Au) Plating, with Locking Windows, Center Polarization Slot, Cap, without PCB Locator, Embossed Tape on Reel

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)	30
Circuits (maximum)	30
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	No
PCB Retention	None
Packaging Type	Embossed Tape on Reel
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
Polarized to Mating Part	Side Slots (2)
Polarized to PCB	No
Shrouded	Fully
Stackable	No

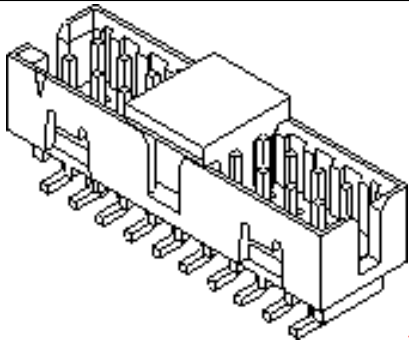


image - Reference only **Series**

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

[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

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

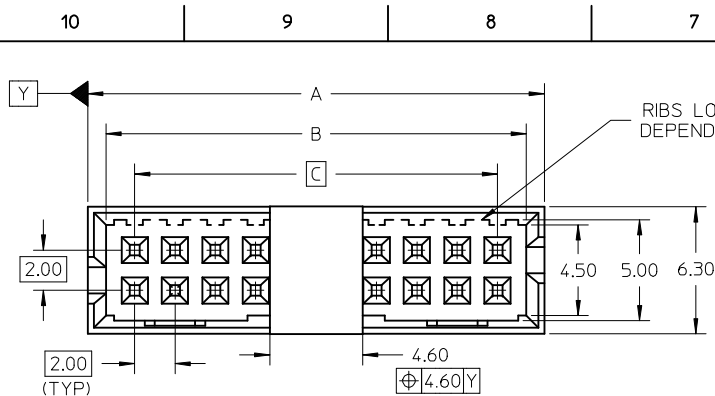
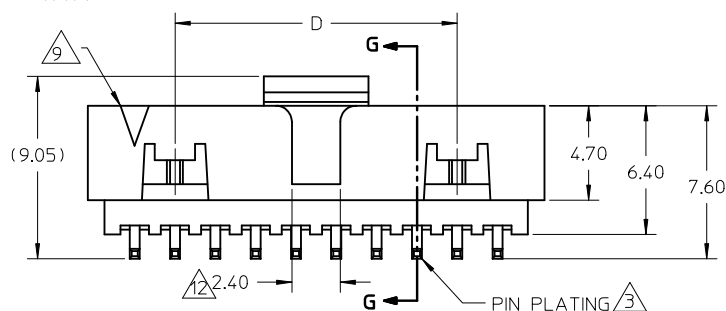
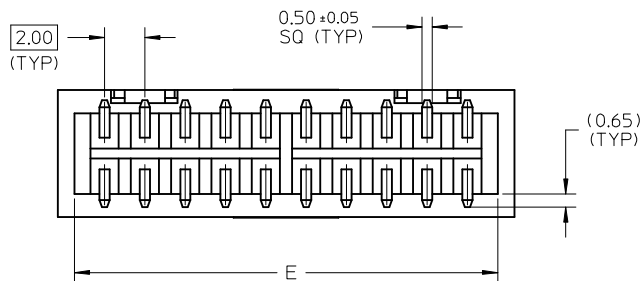
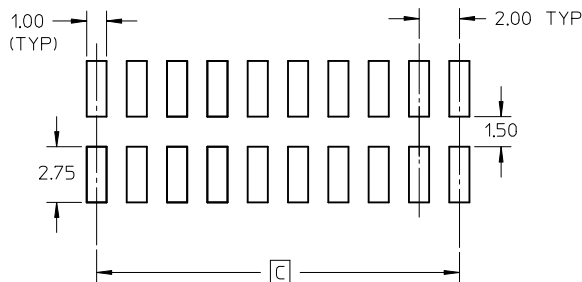
Material Info

Reference - Drawing Numbers

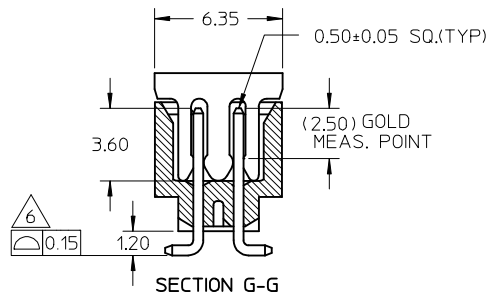
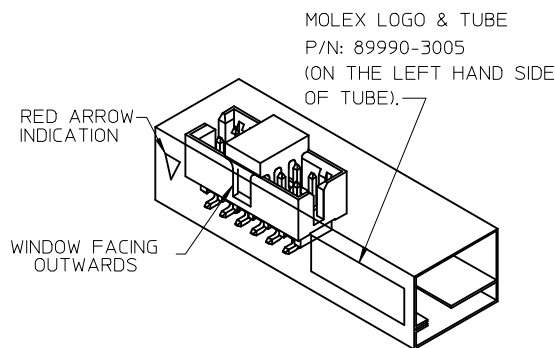
Product Specification	PS-87831-027
Sales Drawing	SD-87832-008

This document was generated on 05/25/2010

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RECOMMENDED PCB PATTERN



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

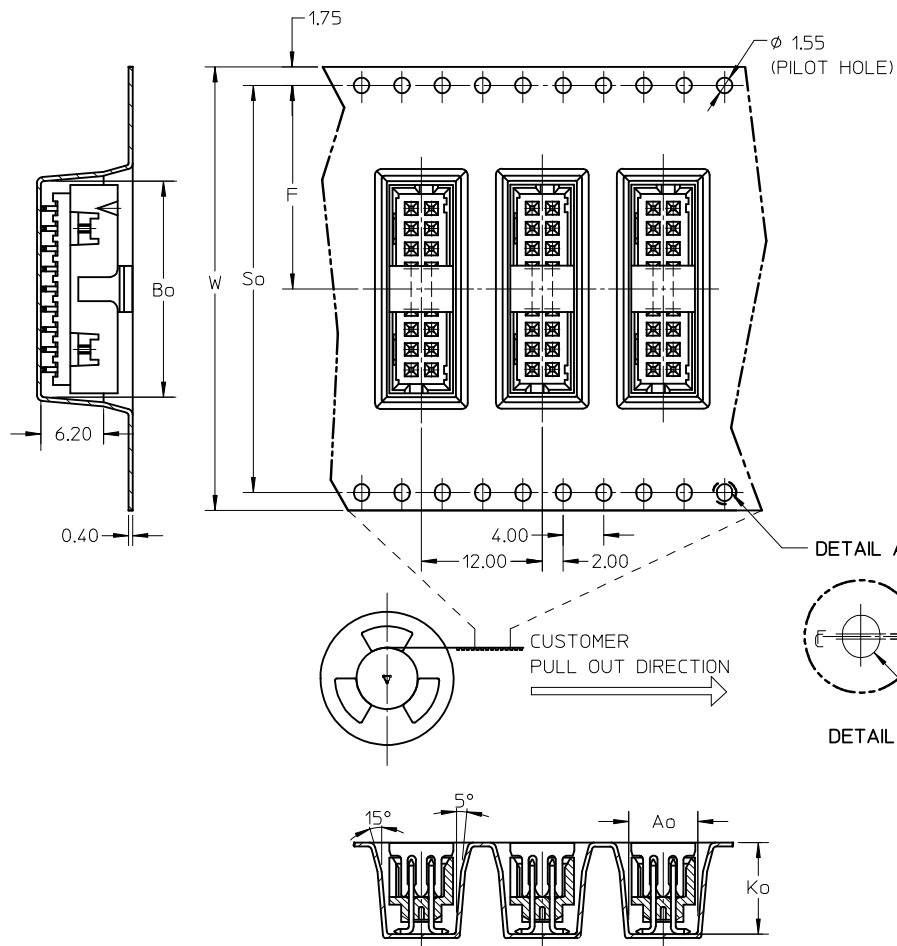
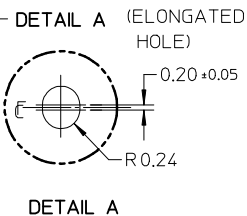
P/N W/CAP IN TUBE	P/N W/CAP IN T&R	P/N W/O CAP IN TUBE	CKT SIZE	DIMENSION				
				A	B	C	D	E
87832-0616	87832-0614	87832-0612	6	8.65	6.85	4.00	—	7.00
87832-0816	87832-0814	87832-0812	8	10.65	8.85	6.00	—	9.00
87832-1416	87832-1414	87832-1412	14	16.65	14.85	12.00	8.00	15.00
87832-1816	87832-1814	87832-1812	18	20.65	18.85	16.00	12.00	19.00
87832-2016	87832-2014	87832-2012	20	22.65	20.85	18.00	14.00	21.00
87832-2616	—	87832-2612	26	28.65	26.85	24.00	20.00	27.00
87832-3016	87832-3014	87832-3012	30	32.65	30.85	28.00	24.00	31.00
87832-3416	87832-3414	87832-3412	34	36.65	34.85	32.00	28.00	35.00
87832-4016	—	87832-4012	40	42.65	40.85	38.00	34.00	41.00
87832-5016	—	87832-5012	50	52.65	50.85	48.00	44.00	51.00
87832-1016	87832-1014	87832-1012	10	12.65	10.85	8.00	—	11.00
87832-1616	87832-1614	87832-1612	16	18.65	16.85	14.00	10.00	17.00

NOTES:

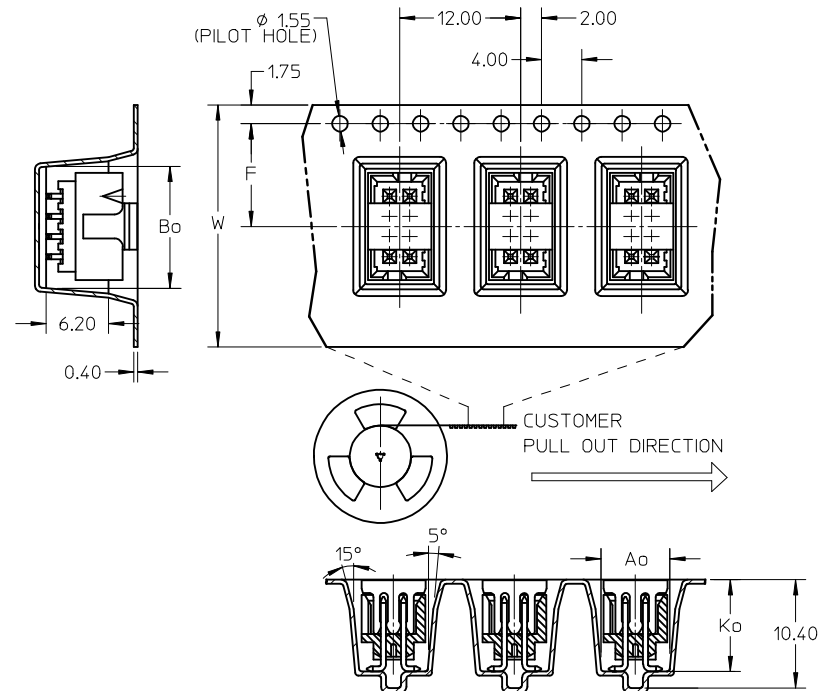
- FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
- MATERIAL :
HOUSING & CAP : NYLON 46, GLASS FILLED, UL94V-0, COLOR BLACK.
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
- PLATING:
0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN.TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- PIN PUSHOUT FORCE : 0.91 KG MIN. IN EITHER DIRECTION.
- PRODUCT SPECIFICATION PS-87831-027 APPLIES.
- COPLANARITY IS TO BE MEASURED BY RESTING THE SOLDER TAIL ON A GAUGE SURFACE.
- BEND DEPRESSION ON SMT TAIL IS ACCEPTABLE SO LONG AS IT DOES NOT AFFECT THE OVERALL COPLANARITY OF THE TAIL.
- NO SIDE LOCKING SLOT FROM 6, 8, AND 10 CKT SIZE.
- CKT 4 & 6 HAS NO IDENTIFICATION TAG.
- THIS HEADER MATES WITH MOLEX:
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
- PARTS SHALL BE PACKED IN MOISTURE BARRIER BAG WITH DESICCANT GEL.
- NO CENTRE POLARIZATION SLOT FOR CKT SIZE 6

ADD IN NOTES NO.12 EC NO: S2009-0943 DRWN:YKCHONG CHKD:SKANG APPR:MLONG REV	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 W/CAP, IN TUBE AND T&R SMT	MOLEX MOLEX INCORPORATED	DOCUMENT NO. SD-87832-008	SHEET NO. 1 OF 3
			4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2003/11/07				
			3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2003/11/07				
			2 PLACES	± 0.2	± ---	MATERIAL NO. SEE TABLE					
			1 PLACE	± ---	± ---	SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
			ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						

EMBOSSED CARRIER TAPE 'B'



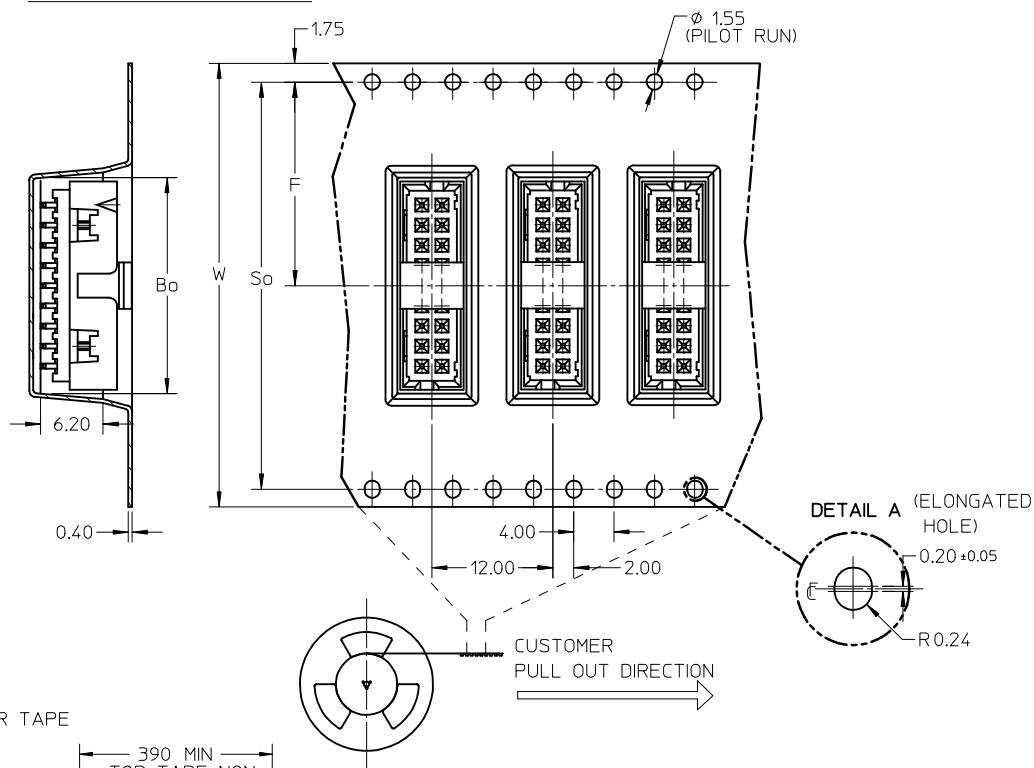
EMBOSSED CARRIER TAPE 'A'



P/N	W/CAP IN T&R	CKT SIZE	W	F	Bo	So	Ao	Ko	TYPE	T&R QUANTITY (PCS/REEL)
87832-0614		06	24.00	11.50	9.15	-	6.40	9.30	A	500
87832-0814		08	24.00	11.50	11.05	-	6.40	9.30	A	
87832-1014		10	24.00	11.50	13.05	-	6.40	9.30	A	
87832-1414		14	32.00	14.20	17.05	28.40	6.40	9.30	C	
87832-1614		16	32.00	14.20	19.05	28.40	6.40	9.30	C	
87832-1814		18	44.00	20.20	21.05	40.40	6.40	9.30	B	
87832-2014		20	44.00	20.20	23.05	40.40	6.40	9.30	C	
87832-3014		30	44.00	20.20	33.05	40.40	6.40	9.30	B	
87832-3414		34	56.00	26.20	37.05	52.40	6.40	9.30	B	

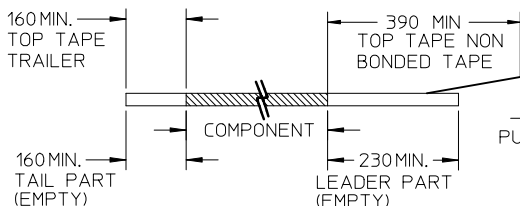
ADD IN NOTES NO.12 EC NO: S2009-0943 DRWN:YCHONG CHKD:SKANG APPR:MLONG 2009/07/01 2009/07/08 2009/07/16	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
				mm	INCH	DRAWN BY ATSEE	DATE 2003/10/14	TITLE MGRID, SHROUDED HEADER W/CAP, IN TUBE AND T&R SMT MOLEX INCORPORATED SD-87832-008	
		4 PLACES	± ---	± ---	± ---	CHECKED BY KCLING	DATE 2003/11/07		
		3 PLACES	± ---	± ---	± ---	APPROVED BY SKTOH	DATE 2003/11/07		
B4	REV	2 PLACES	± 0.2	± ---	± ---	MATERIAL NO.		DOCUMENT NO.	
		1 PLACE	± ---	± ---	± ---	SEE TABLE		SHEET NO.	
		ANGULAR ± 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		2 OF 3	

EMBOSSED CARRIER TAPE 'C'

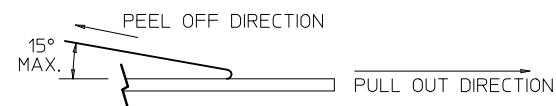


NOTES:

1. LEADER AND TRAILER TAPE



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



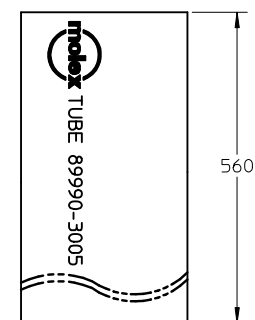
3. PACKAGING STANDARD IS AS PER EIA-481.

4. TAPE AND REEL QUANTITY = SEE TABLE ON SHEET 2

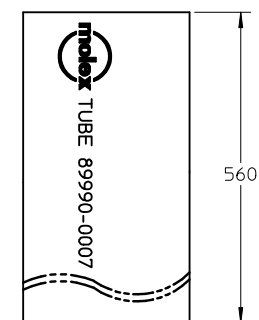
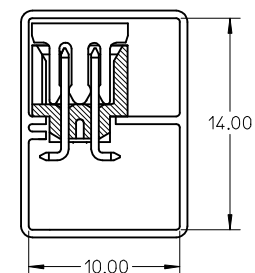
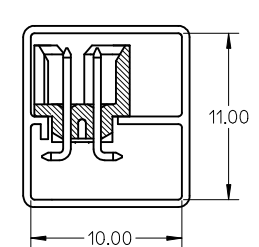
5. THE TAPE IS TREATED FOR ANTI-STATIC.

P/N W/CAP IN TUBE TUBE : 89990-3005	P/N W/O CAP IN TUBE TUBE : 89990-0007
87832-0616	87832-0612
87832-0816	87832-0812
87832-1416	87832-1412
87832-1816	87832-1812
87832-2016	87832-2012
87832-2616	87832-2612
87832-3016	87832-3012
87832-3416	87832-3412
87832-4016	87832-4012
87832-5016	87832-5012
87832-1016	87832-1012
87832-1616	87832-1612

ASSY WITH CAP TUBE



ASSY WITHOUT CAP IN TUBE



ADD IN NOTES NO.12	QUALITY SYMBOLS
EC NO: S2009-0943	▽=0
2009/07/01	▽=0
DRWN:YCHONG	
2009/07/08	
CHKD:SKANG	
2009/07/16	
APPR:MLONG	
REV	
B4	

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	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY	NTS	METRIC	
DRAWN BY	DATE	TITLE	
ATSEE	2003/10/14	MGRID, SHROUDED HEADER	
CHECKED BY	DATE	W/CAP, IN TUBE AND T&R	
KCL ING	2003/11/07	SMT	
APPROVED BY	DATE	MOLEX INCORPORATED	
SKTOH	2003/11/07	SD-87832-008	
MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
SEE TABLE		3 OF 3	

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