

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: **0877131001**
Status: **Active**
Description: 1.27mm (.050") Pitch Serial ATA Host Receptacle, Surface Mount, Vertical, Standard Height, with 3.70mm (.145") Plastic Locating Peg, 0.76µm (30µ") Gold (Au) Selective Plating, 22 Circuits, Leadfree

Documents:

[3D Model](#) [Product Specification PS-87713-016 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

General

Product Family	PCB Receptacles
Series	87713
Application	Board-to-Board
Comments	3.70mm (.145") Plastic Locating Peg
Product Literature Order No	SNG-029
Product Name	Serial ATA

Physical

Circuits (Loaded)	22
Circuits Detail	Power 15 pins Signal 7 pins
Durability (mating cycles max)	500
Glow-Wire Compliant	No
Lock to Mating Part	Yes
Material - Metal	Copper Alloy
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Rows	1
Orientation	Vertical
PCB Locator	Yes
PCB Retention	None
Packaging Type	Tray
Pitch - Mating Interface (in)	0.050 In
Pitch - Mating Interface (mm)	1.27 mm
Plating min: Mating (µin)	30
Plating min: Mating (µm)	0.76
Plating min: Termination (µin)	100
Plating min: Termination (µm)	2.54
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Surface Mount Compatible (SMC)	N/A
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Surface Mount

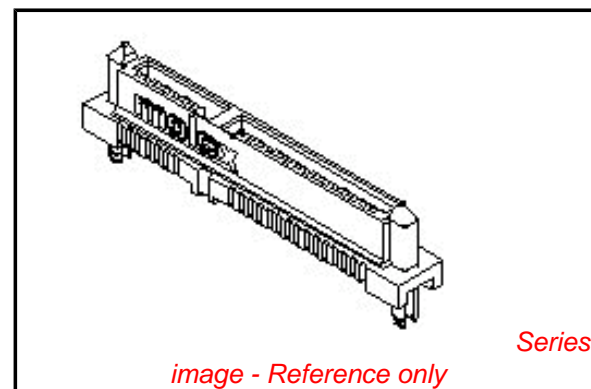
Electrical

Current - Maximum per Contact	1.5A
Voltage - Maximum	30V

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



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

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

87713Series

Mates With

87679 , 87799 , 87703

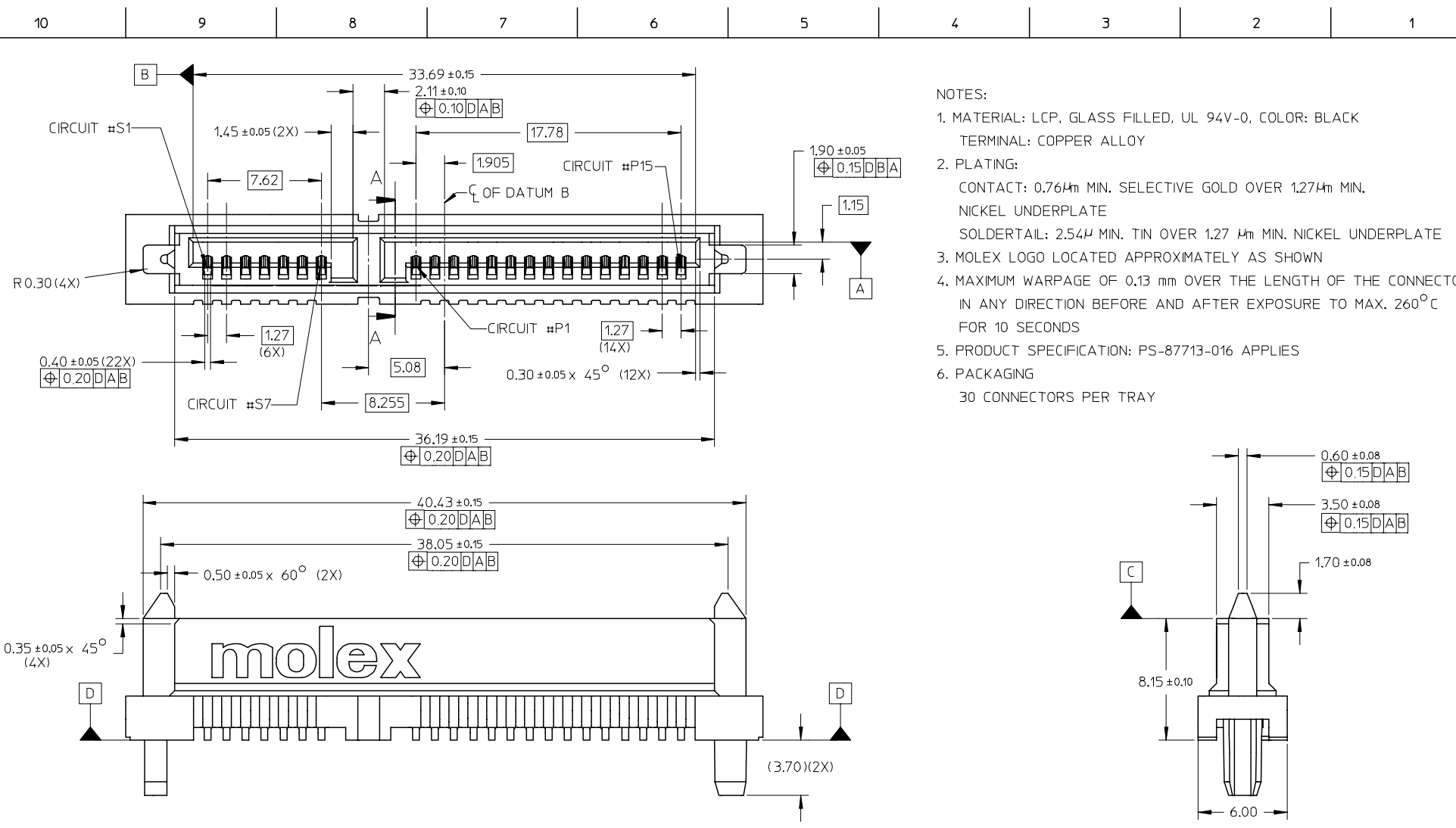
Reference - Drawing Numbers

Product Specification
Sales Drawing

PS-87713-016
SD-87713-001

This document was generated on 03/29/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION



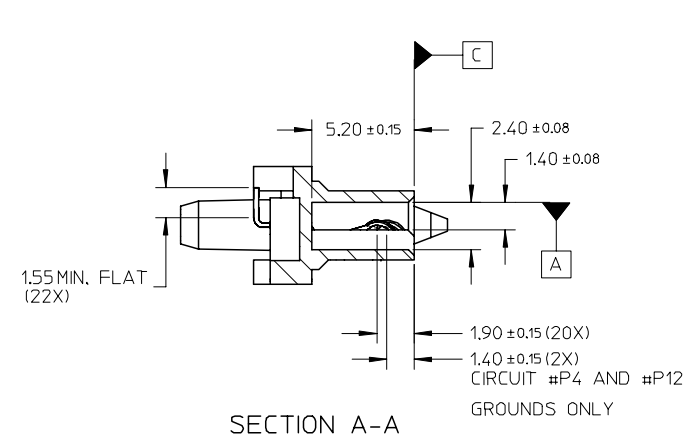
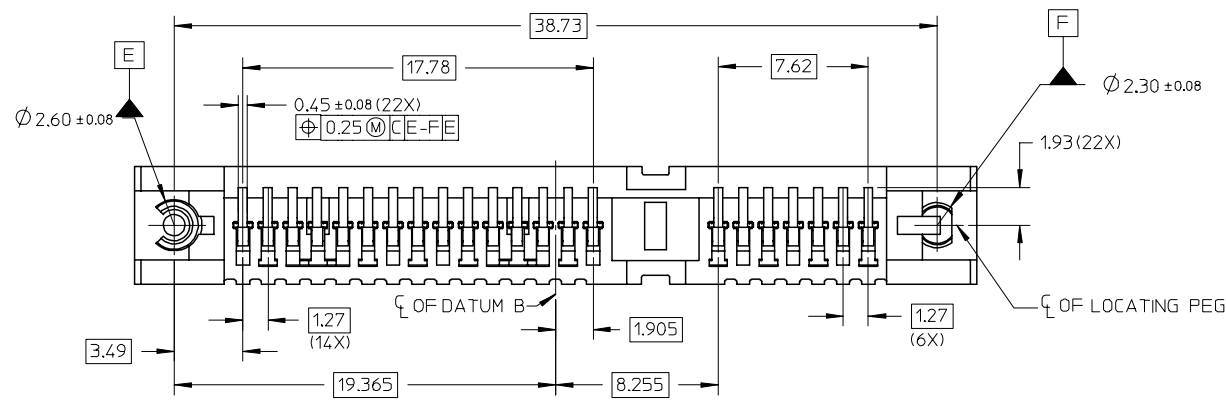
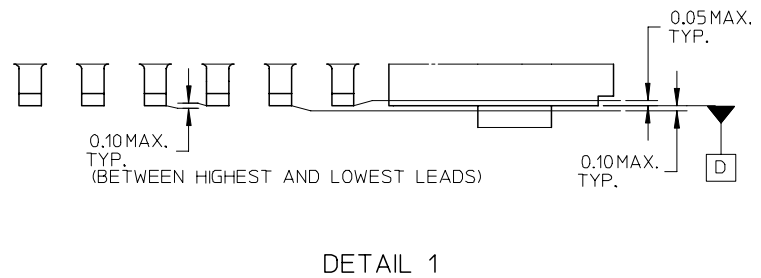
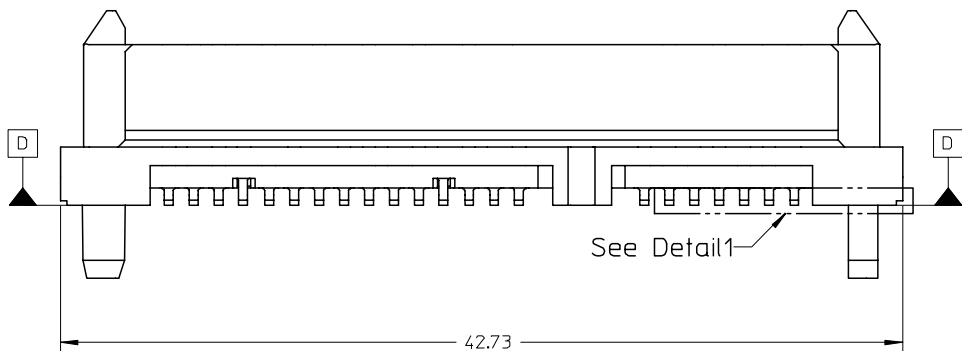
- NOTES:
- MATERIAL: LCP, GLASS FILLED, UL 94V-0, COLOR: BLACK
TERMINAL: COPPER ALLOY
 - PLATING:
CONTACT: 0.76µm MIN. SELECTIVE GOLD OVER 1.27µm MIN.
NICKEL UNDERPLATE
SOLDERTAIL: 2.54µ MIN. TIN OVER 1.27 µm MIN. NICKEL UNDERPLATE
 - MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
 - MAXIMUM WARPAGE OF 0.13 mm OVER THE LENGTH OF THE CONNECTOR IN ANY DIRECTION BEFORE AND AFTER EXPOSURE TO MAX. 260°C FOR 10 SECONDS
 - PRODUCT SPECIFICATION: PS-87713-016 APPLIES
 - PACKAGING
30 CONNECTORS PER TRAY

OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG CHKD:CGTAN APPR: 2006/04/04 2006/04/04 2006/04/04	QUALITY SYMBOLS ▽=0 ▽C=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
			mm	INCH	DRAWN BY DKOH	DATE 2002/07/05	TITLE SERIAL ATA BACKPLANE STD HEIGHT, RECEPT., SMT	
		4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2002/07/05	MOLEX MOLEX INCORPORATED	
		3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2002/07/05	DOCUMENT NO. SD-87713-001	SHEET NO. 1 OF 4
		2 PLACES	± 0.20	± ---	MATERIAL NO. 87713-1001			
			1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		
				ANGULAR ± 3 °				

10 9 8 7 6 5 4 3 2 1

F
E
D
C
B
A

F
E
D
C
B
A



OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG 2006/04/04 CHKD:CGTAN 2006/04/04 APPR:KCLING 2006/04/04	QUALITY SYMBOLS ▽=0 △=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY DKOH	DATE 2002/07/05	TITLE SERIAL ATA BACKPLANE STD HEIGHT, RECEPT., SMT			
		4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2002/07/05	MOLEX INCORPORATED			
		3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2002/07/05				
		2 PLACES	± 0.20	± ---	MATERIAL NO. 87713-1001		DOCUMENT NO. SD-87713-001	SHEET NO. 2 OF 4		
1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							

9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

F F

E E

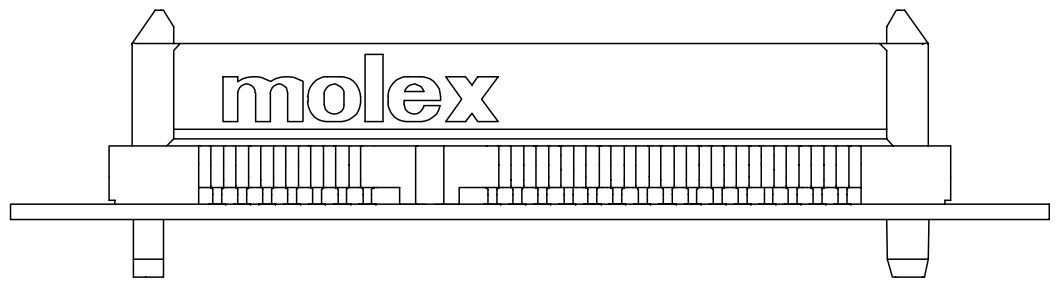
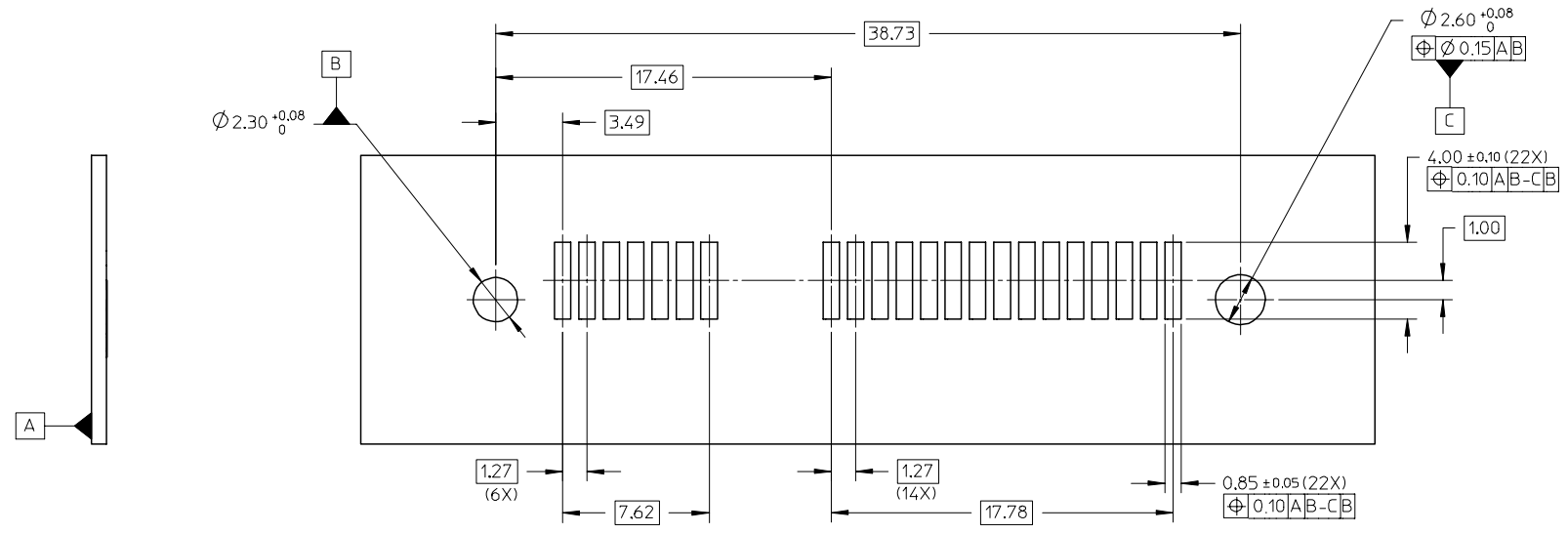
D D

C C

B B

A A

9 8 7 6 5 4 3 2 1



PCB THICKNESS: TBA mm
RECOMMENDED PCB LAYOUT

OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG CHKD:CGTAN APPR:KCLING	2006/04/04 2006/04/04 2006/04/04 2006/04/04	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			▽=0 ∇=0		MM ONLY	NTS	METRIC		
					mm	INCH			
					4 PLACES ± ---	± ---	DRAWN BY	DATE	
	3 PLACES ± ---	± ---	DKOH	2002/07/05	SERIAL ATA BACKPLANE STD HEIGHT, RECEPT., SMT				
	2 PLACES ± 0.20	± ---	CHECKED BY	DATE					
	1 PLACE ± ---	± ---	KCLING	2002/07/05					
			ANGULAR ± 3 °	APPROVED BY	DATE	MOLEX INCORPORATED			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SKTOH	2002/07/05				
				MATERIAL NO.	87713-1001	DOCUMENT NO.	SD-87713-001	SHEET NO.	3 OF 4
				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

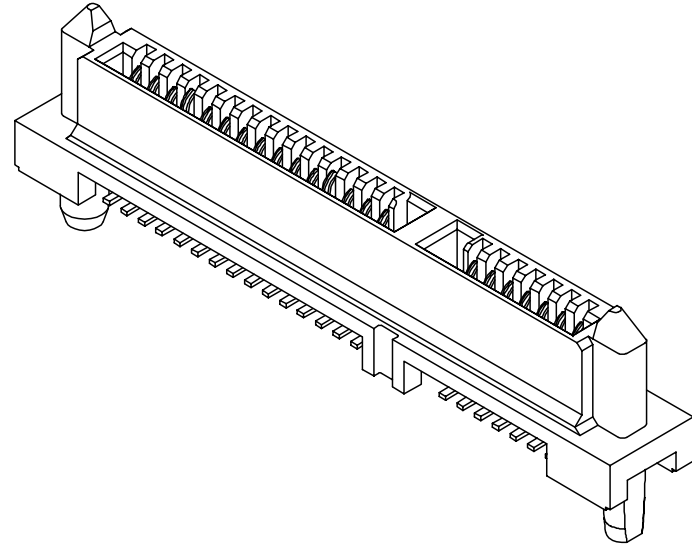
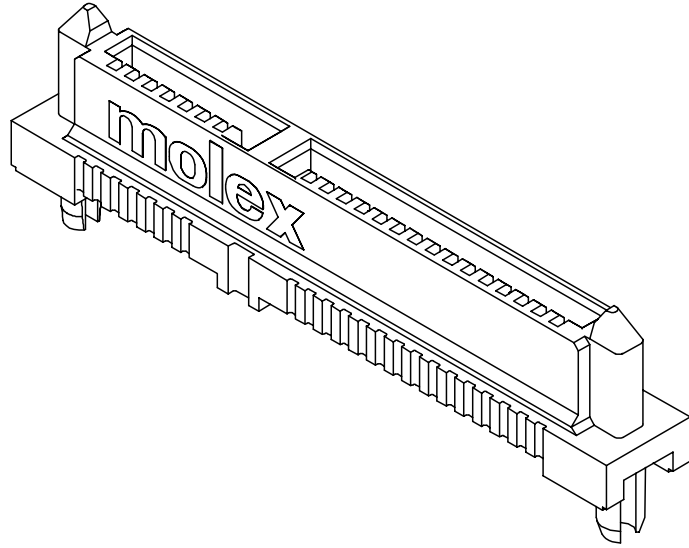
5

4

3

2

1



OBS TIN/LEAD P/N
 EC NO: S2006-0984
 2006/04/04
 DRWN:MLONG
 2006/04/04
 CHKD:CGTAN
 2006/04/04
 APPR:KCLING
 2006/04/04

QUALITY SYMBOLS
 ▽=0
 ▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE
 MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE
 MM ONLY

DRAWN BY	DATE
DKOH	2002/07/05
CHECKED BY	DATE
KCLING	2002/07/05
APPROVED BY	DATE
SKTOH	2002/07/05

MATERIAL NO.
 87713-1001

SCALE	DESIGN UNITS	TITLE
NTS	METRIC	SERIAL ATA BACKPLANE STD HEIGHT, RECEPT., SMT
MOLEX INCORPORATED		THIRD ANGLE PROJECTION
DOCUMENT NO. SD-87713-001		SHEET NO. 4 OF 4

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

9

8

7

6

5

4

3

2

1