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Part Number: **0783201001**
Status: **Active**
Overview: micro_sata
Description: 1.27mm (.050") Pitch High Speed Micro Serial ATA Device Receptacle for 1.8" HDD/SSD, SMT, Right Angle, Top Mount, 14 Circuits, Tray, Lead free

Documents:

[3D Model](#) [Product Specification PS-78320-002 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

Product Family PCB Receptacles
 Series 78320
 Application Board-to-Board
 Overview micro_sata
 Product Name Micro Serial ATA, Serial ATA

Physical

Circuits (Loaded) 14
 Circuits (maximum) 14
 Circuits Detail Without optional manufacturing pins (S1 to S7 and P1 to P7); Void pins P8 and P9
 Color - Resin Black
 Durability (mating cycles max) 500
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part Yes
 Keying to Mating Part Yes
 Lock to Mating Part Yes
 Material - Metal Copper Alloy
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Material - Resin Nylon
 Number of Rows 1
 Orientation Right Angle
 PCB Locator Yes
 PCB Retention Yes
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.050 In, 0.200 In
 Pitch - Mating Interface (mm) 1.27 mm, 5.08 mm
 Pitch - Term. Interface (in) 0.050 In, 0.200 In
 Pitch - Term. Interface (mm) 1.27 mm, 5.08 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
 Stackable No
 Temperature Range - Operating -40°C to +105°C
 Termination Interface: Style Surface Mount

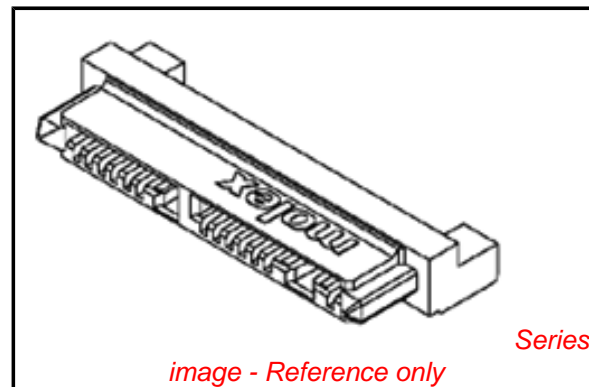


image - Reference only

EU RoHS

**ELV and RoHS
 Compliant
 REACH SVHC
 Not Reviewed
 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

[78320Series](#)

Mates With

[78103](#) , [78283](#) and [78285](#) Micro SATA Device Plugs

Electrical

Current - Maximum per Contact	1.5A
Grounding to PCB	Yes
Voltage - Maximum	30V

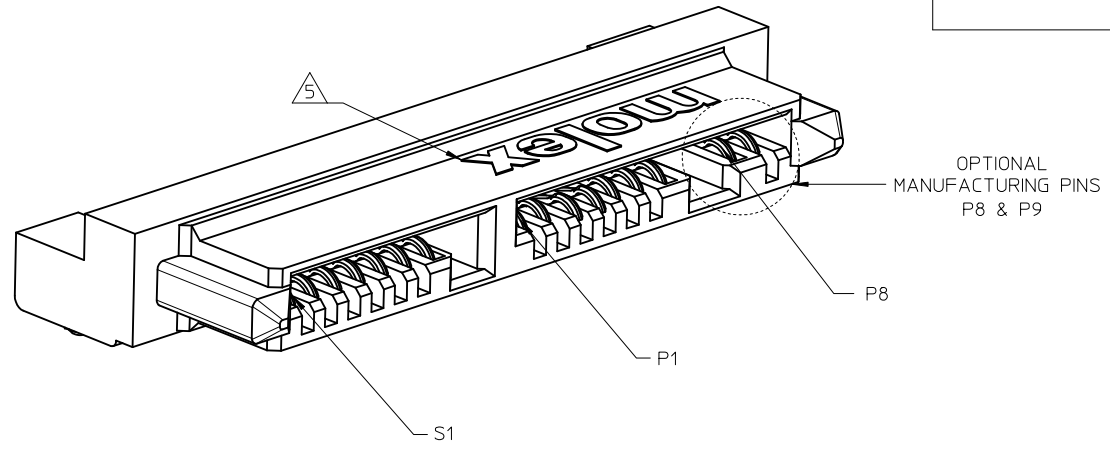
Material Info**Reference - Drawing Numbers**

Packaging Specification	PK-78320-001
Product Specification	PS-78320-002
Sales Drawing	SD-78320-001

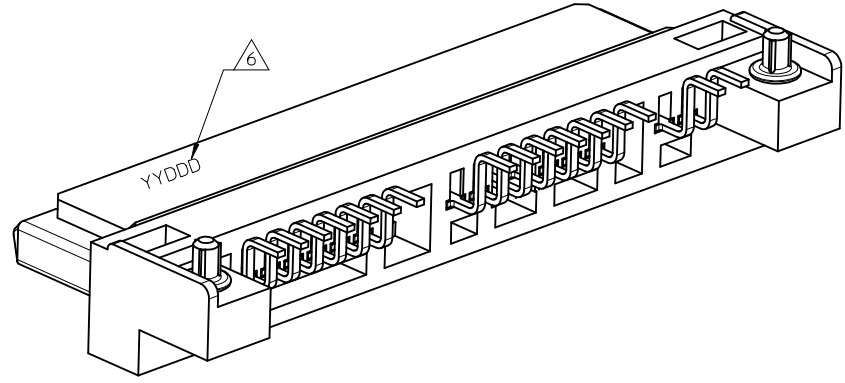
This document was generated on 05/21/2010

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5	4	3	2	1
PART NUMBER	TOTAL PINS	DESCRIPTION		
78320-0001	16	WITH OPTIONAL MANUFACTURING PINS (S1 TO S7 & P1 TO P9)		
78320-1001	14	WITHOUT OPTIONAL MANUFACTURING PINS (S1 TO S7 & P1 TO P7)		

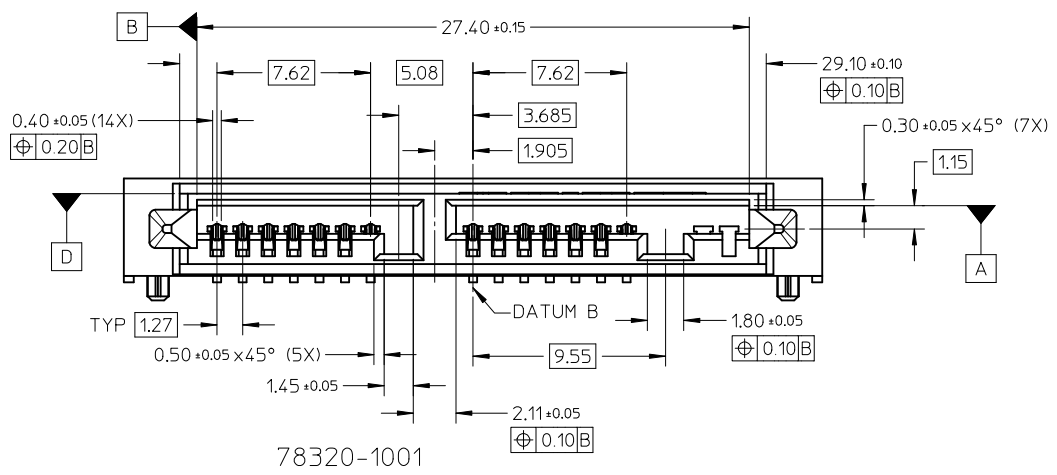


- NOTES:
- MATERIAL : NYLON (PA), GLASS FILLED, UL 94V-0, BLACK
TERMINAL/LOCATING PIN : COPPER ALLOY
 - FINISHES :
 TERMINAL : 0.76 μ m MIN. SELECTIVE GOLD OVER
 1.27 μ m MIN. NICKEL UNDERPLATE
 : 2.54 μ m MIN. TIN OVER
 1.27 μ m MIN. NICKEL UNDERPLATE
 LOCATING PIN : 3.81 μ m MIN. TIN OVER
 2.00 μ m MIN. NICKEL UNDERPLATE
 - PRODUCT SPECIFICATION: PS-78320-002
 - PACKAGING : TRAY
 - MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
 - DATE CODE LOCATED APPROXIMATELY AS SHOWN
 - THIS PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYLS ETHERS.
 - NON FUNCTIONAL CORING MAY VARY.

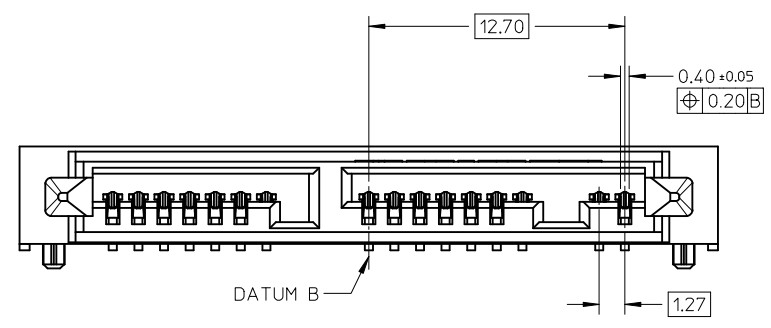


UPDATE VIEWS EC NO: S2010-0590 DRWN:GMENARLY 2010/01/13 CHKD:CGOH 2010/01/25 APPR:BOKOK 2010/01/28	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla_A=0$	mm	INCH	MM ONLY		NTS	METRIC		
	$\nabla_C=0$	4 PLACES	\pm ---	\pm ---	DRAWN BY	DATE	TITLE		
	$\nabla_P=0$	3 PLACES	\pm ---	\pm ---	GMENARLY	2007/08/23	SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT		
	2 PLACES	\pm 0.20	\pm ---	CHECKED BY	DATE	MOLEX INCORPORATED			
	1 PLACE	\pm ---	\pm ---	YKOH	2007/10/04	SD-78320-001			
		ANGULAR \pm 3 °		APPROVED BY	DATE	SHEET NO.			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		BOKOK	2010/01/26	1 OF 5			
				MATERIAL NO.	SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
				SIZE	A3				

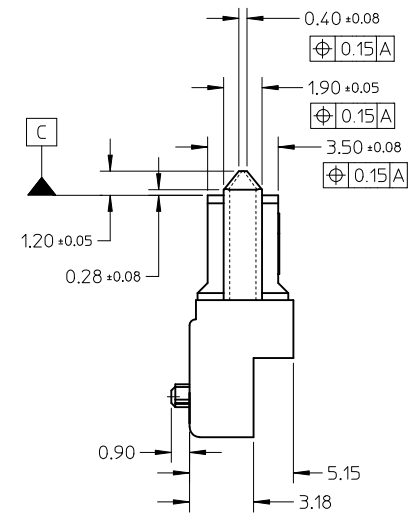
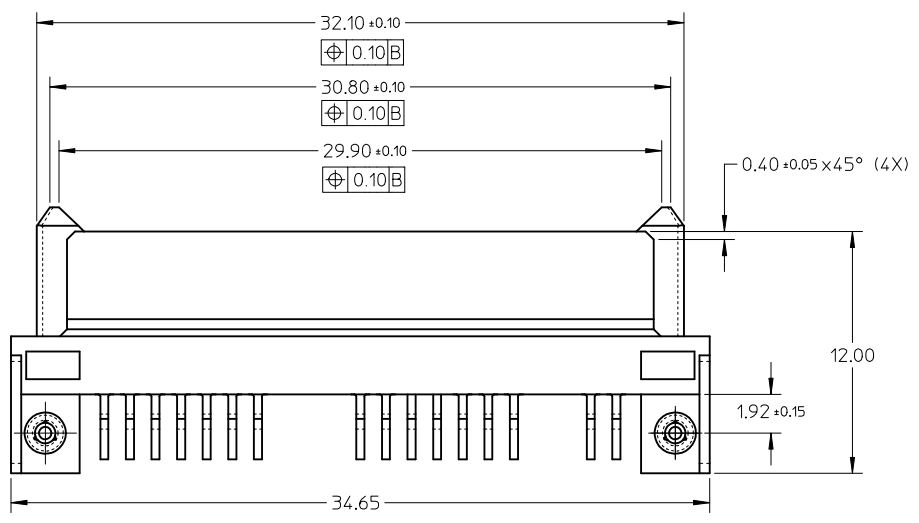
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78320-1001

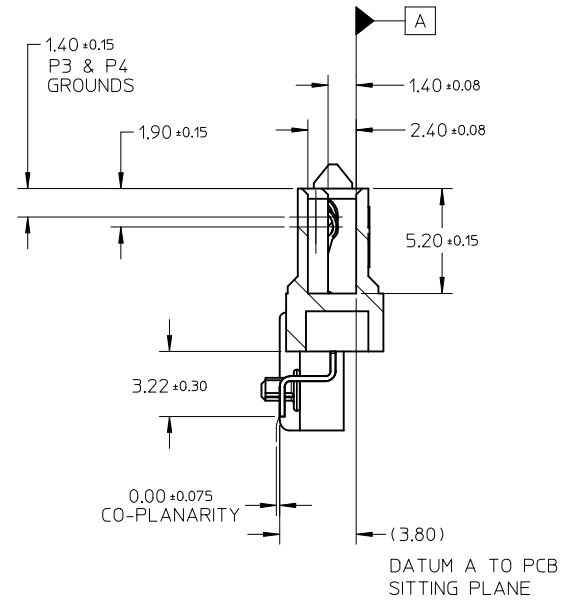
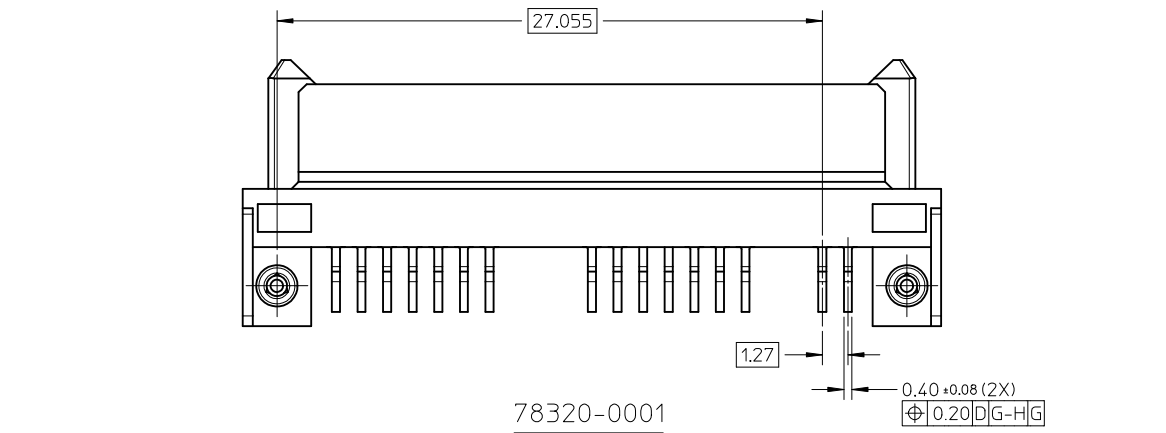
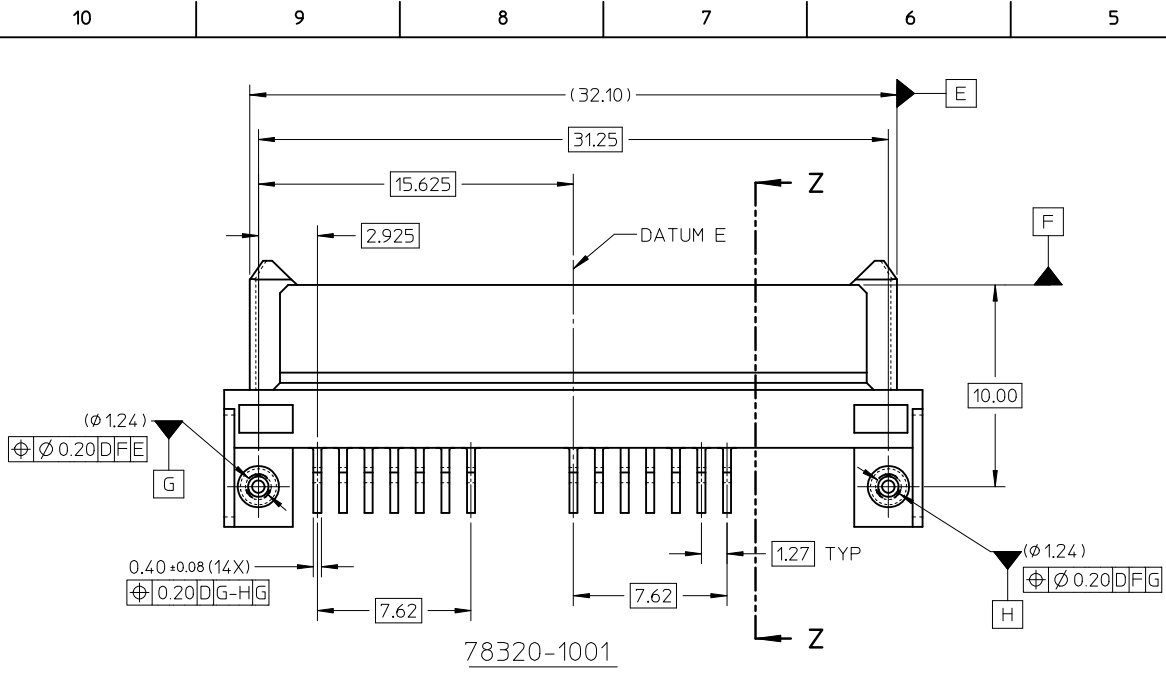


78320-0001



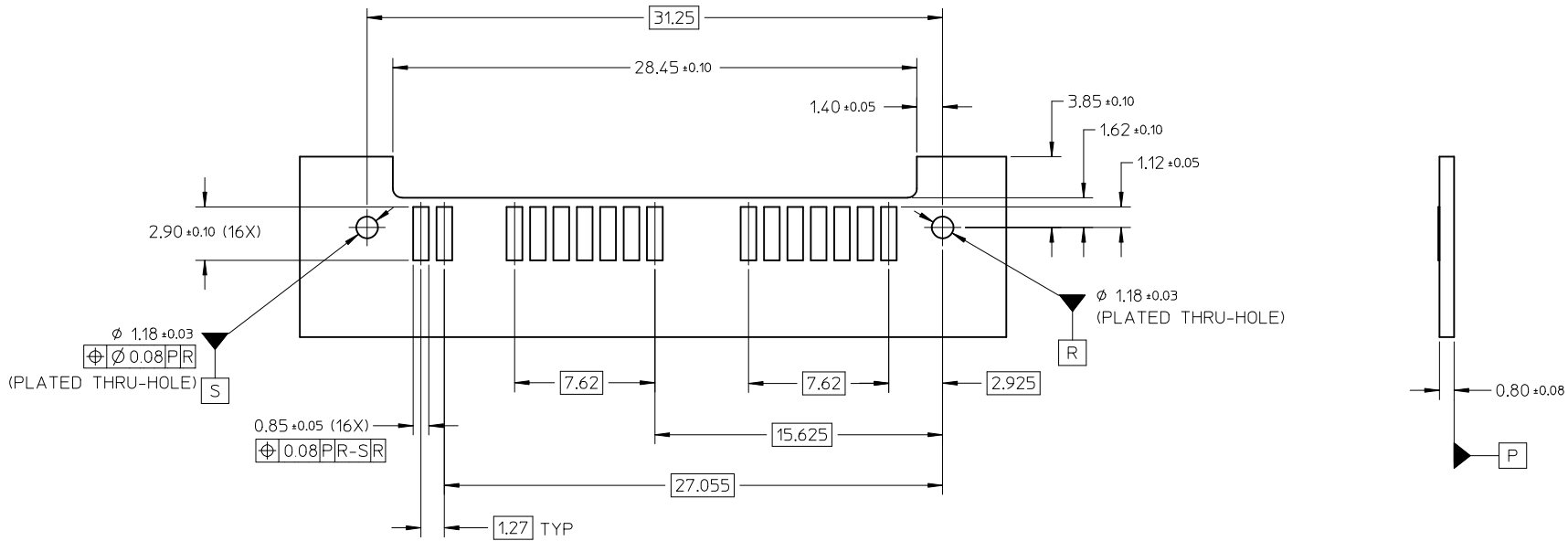
UPDATE VIEWS EC NO: S2010-0590 DRWNG:GMENARLY 2010/01/13 CHKD:CGOH 2010/01/25 APPR:BOKOK 2010/01/28	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
				MM ONLY		NTS	METRIC			
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	GMENARLY	2007/08/23	SERIAL ATA RECEPTACLE			
3 PLACES	± ---	± ---	CHECKED BY	DATE	1.8 INCH HDD/SSD					
2 PLACES	± 0.20	± ---	YKOH	2007/10/04	R/A, SMT, 3.80MM HEIGHT					
1 PLACE	± ---	± ---	APPROVED BY	DATE	MOLEX INCORPORATED					
		ANGULAR ± 3 °		BOKOK	2010/01/26	MOLEX INCORPORATED				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DOCUMENT NO.	SHEET NO.				
				SEE TABLE	SD-78320-001	2 OF 5				
				SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
				A3						

9 8 7 6 5 4 3 2 1



SECTION Z-Z

UPDATE VIEWS EC NO: S2010-0590 DRWNG: GMENARLY 2010/01/13 CHKD: CGOH 2010/01/25 APPR: BOKOK 2010/01/26	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	GMENARLY	2007/08/23	SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT MOLEX INCORPORATED			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.20	± ---	YKOH	2007/10/04	MATERIAL NO. SEE TABLE DOCUMENT NO. SD-78320-001 SHEET NO. 3 OF 5					
1 PLACE	± ---	± ---	APPROVED BY	DATE	BOKOK 2010/01/26					
ANGULAR ± 3 °		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				



RECOMMENDED PCB LAYOUT

UPDATE VIEWS EC NO: S2010-0590 DRW: GMENARLY 2010/01/13 CHKD: CGOH 2010/01/25 APPR: BOKOK 2010/01/28	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	$F_A=0$	mm	INCH	DRAWN BY GMENARLY	DATE 2007/08/23	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT			
	$F_C=0$	4 PLACES ± ---	± ---	CHECKED BY YKOH	DATE 2007/10/04	MOLEX INCORPORATED			
	$F_P=0$	3 PLACES ± ---	± ---	APPROVED BY BOKOK	DATE 2010/01/26	MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
		2 PLACES ± 0.20	± ---	ANGULAR ± 3 °		SEE TABLE		SD-78320-001	
		1 PLACE ± ---	± ---	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		4 OF 5	

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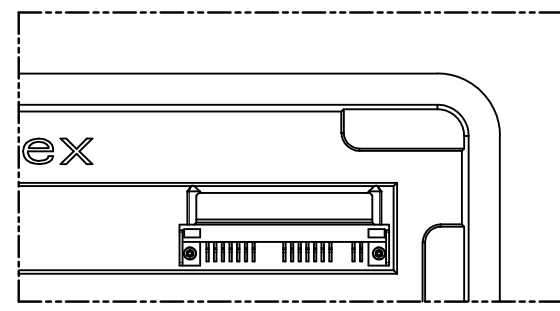
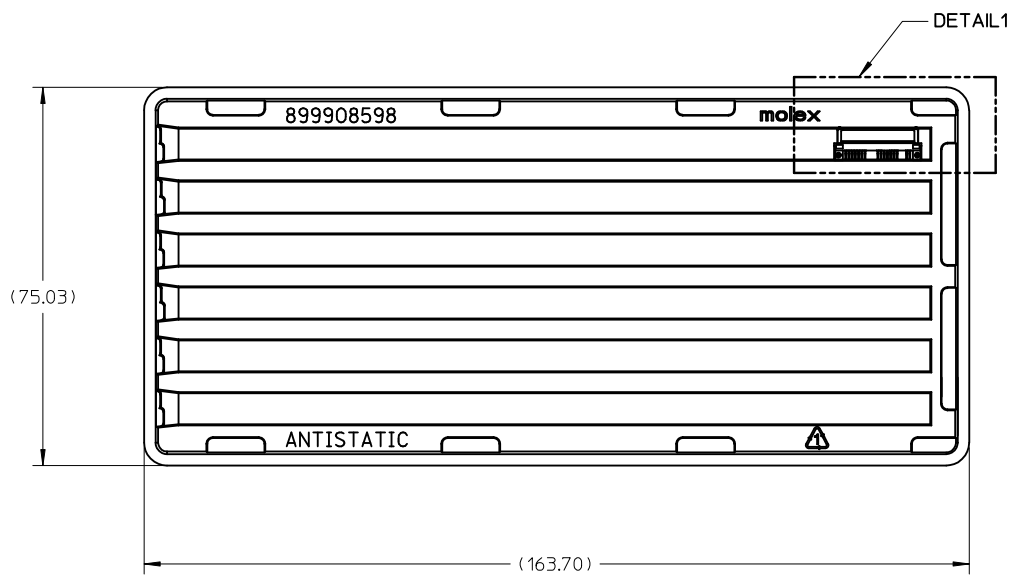
E

D

C

B

A



DETAIL 1

- NOTES:
 1. PACKAGING QTY: 54PCS/TRAY
 2. MATERIAL: PVC-CLEAR, ANTISTATIC
 0.70MM THICK (PRE-FORMED)

UPDATE VIEWS EC NO: S2010-0590 DRWNG: GMENARLY 2010/01/13 CHKD: CGOH 2010/01/25 APPR: BOKOK 2010/01/28	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		$F_A=0$ $F_C=0$ $F_P=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	DRAWN BY GMENARLY CHECKED BY YKOH APPROVED BY BOKOK MATERIAL NO. SEE TABLE	DATE 2007/08/23 DATE 2007/10/04 DATE 2010/01/26	TITLE	SHEET NO.		
		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		SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT MOLEX INCORPORATED		5 OF 5	
						SD-78320-001			

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