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Part Number: [0783200001](#)
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, 16 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) 16
 Circuits (maximum) 16
 Circuits Detail With optional manufacturing pins (S1 to S7 and P1 to 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

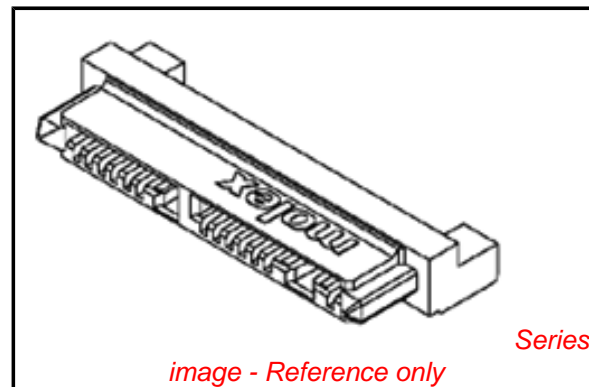


image - Reference only

Series

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

[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

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

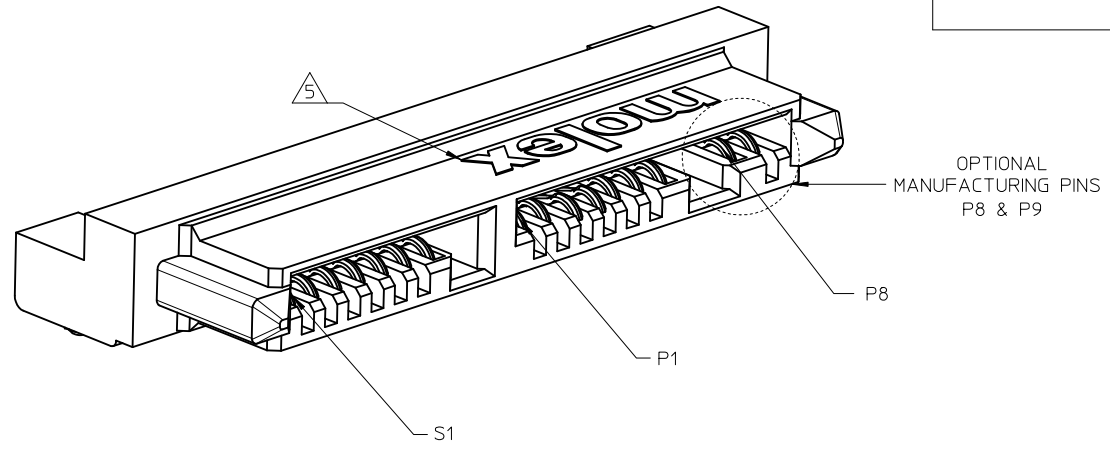
Material Info**Reference - Drawing Numbers**

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

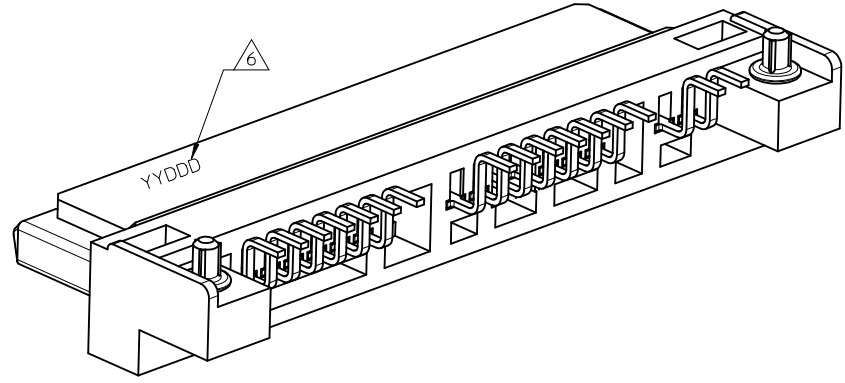
This document was generated on 05/21/2010

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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)		

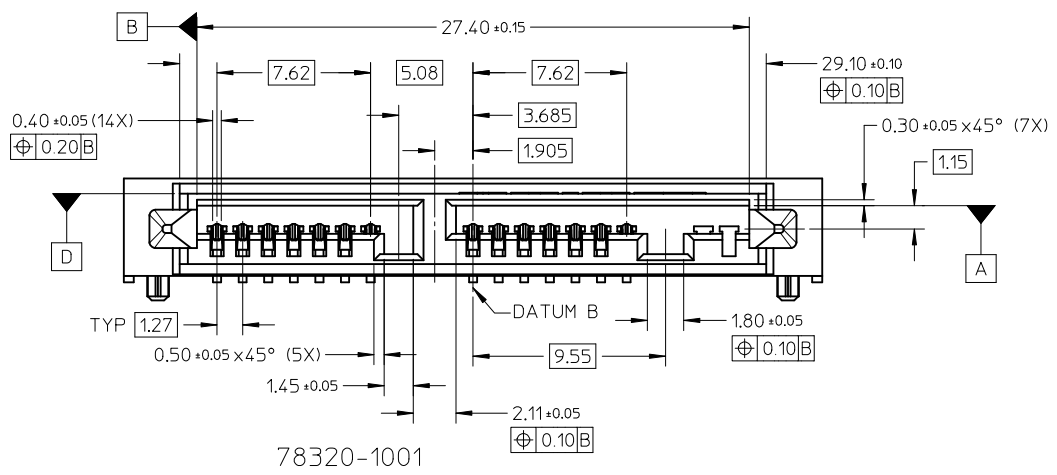


- NOTES:
- MATERIAL : NYLON (PA), GLASS FILLED, UL 94V-0, BLACK
TERMINAL/LOCATING PIN : COPPER ALLOY
 - FINISHES :
TERMINAL : 0.76 μ m MIN. SELECTIVE GOLD OVER
1.27 μ m MIN. NICKEL UNDERPLATE
: 2.54 μ m MIN. TIN OVER
1.27 μ m MIN. NICKEL UNDERPLATE
LOCATING PIN : 3.81 μ m MIN. TIN OVER
2.00 μ m MIN. 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.

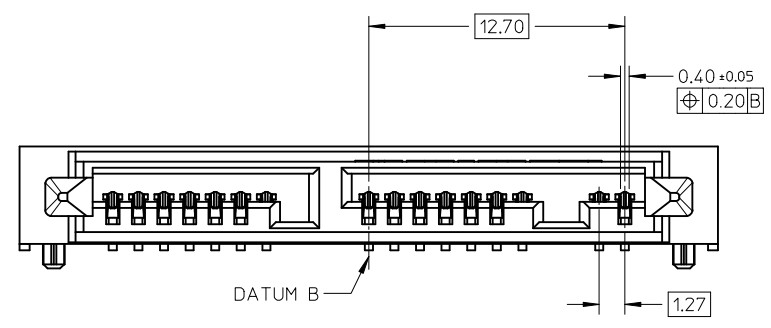


UPDATE VIEWS EC NO: S2010-0590 DRWING:GMENARLY 2010/01/13 CHKD:CGOH 2010/01/25 APPR:BOKOK 2010/01/28	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>\pm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

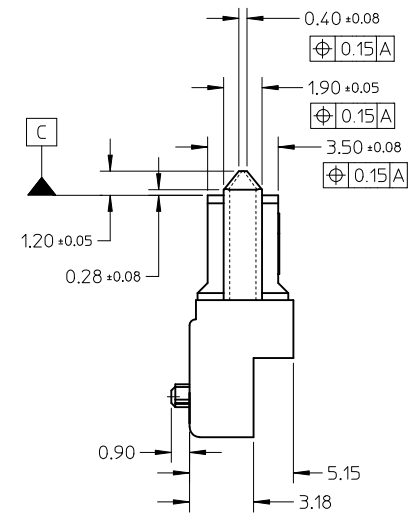
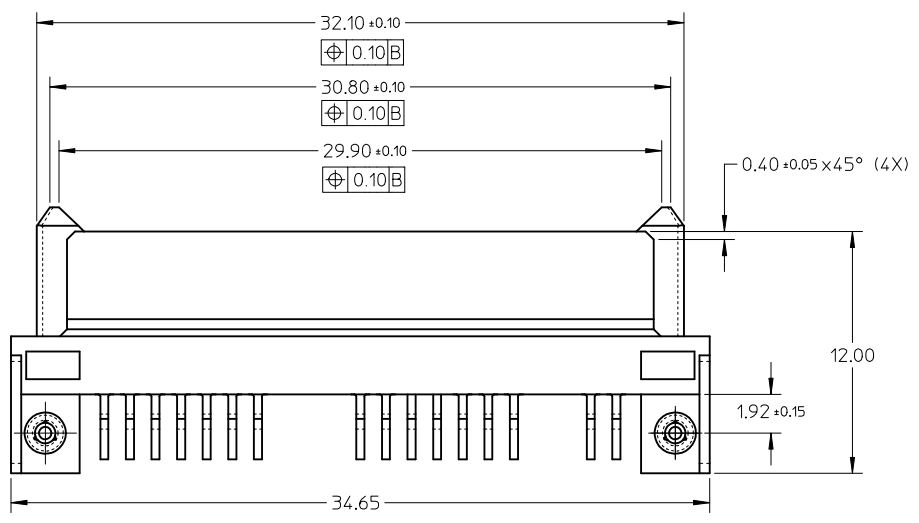
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78320-1001

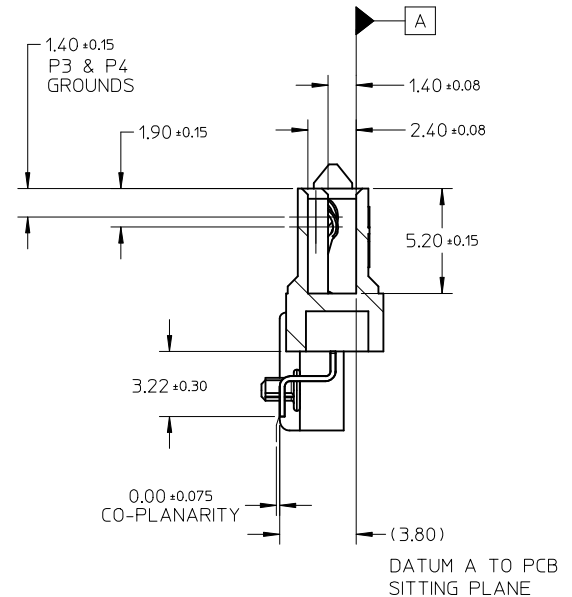
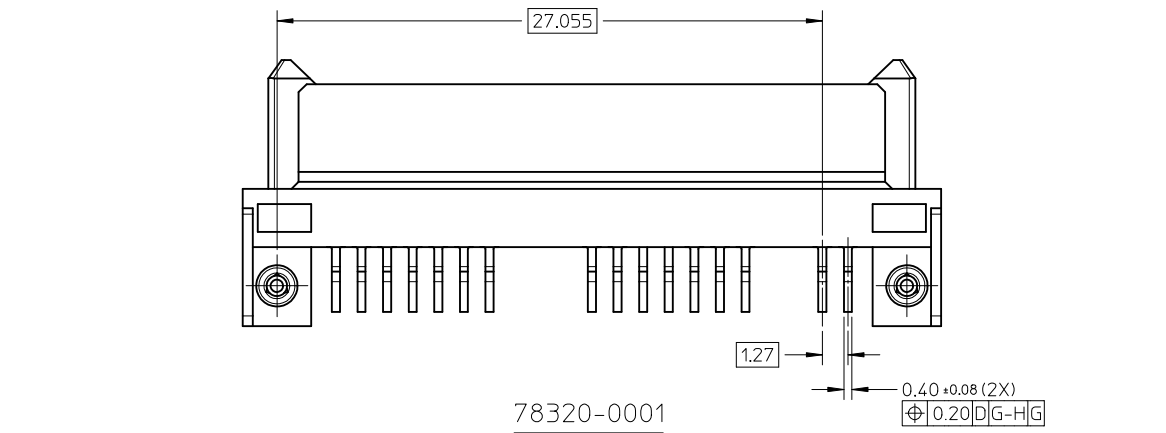
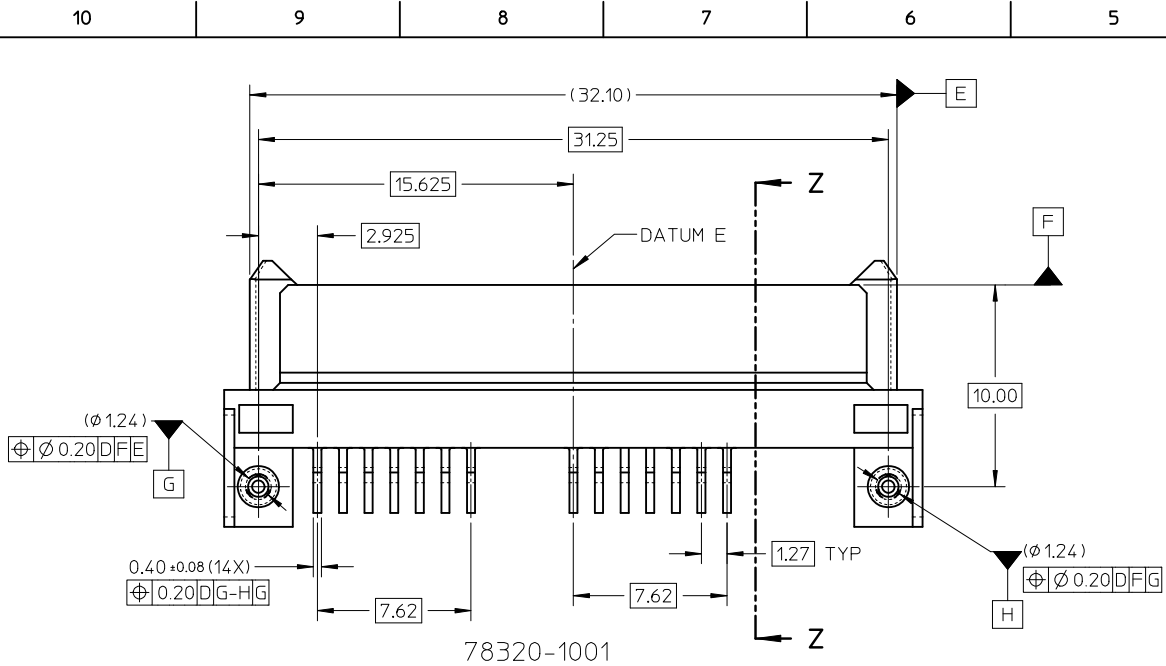


78320-0001



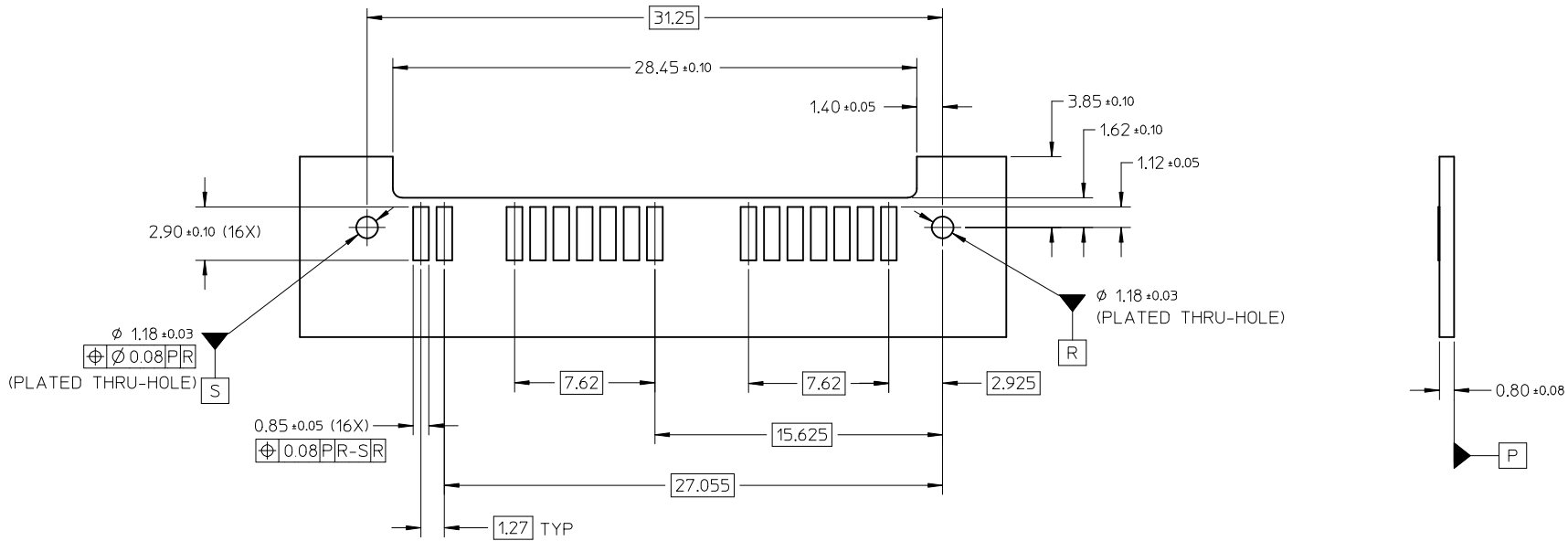
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			mm	INCH	DRAWN BY	DATE	TITLE			
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2 PLACES	± 0.20	± ---	YKOH	2007/10/04	R/A, SMT, 3.80MM HEIGHT					
1 PLACE	± ---	± ---	APPROVED BY	DATE	MOLEX INCORPORATED					
		ANGULAR ± 3 °		BOKOK	2010/01/26	MOLEX INCORPORATED				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	SEE TABLE	DOCUMENT NO.	SD-78320-001			
				SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				SHEET NO.	2 OF 5

9 8 7 6 5 4 3 2 1



SECTION Z-Z

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2 PLACES	± 0.20	± ---	YKOH	2007/10/04	MATERIAL NO. DOCUMENT NO. SD-78320-001 SHEET NO. 3 OF 5					
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RECOMMENDED PCB LAYOUT

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	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				
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				SEE TABLE		SD-78320-001			
				SIZE A3		4 OF 5			
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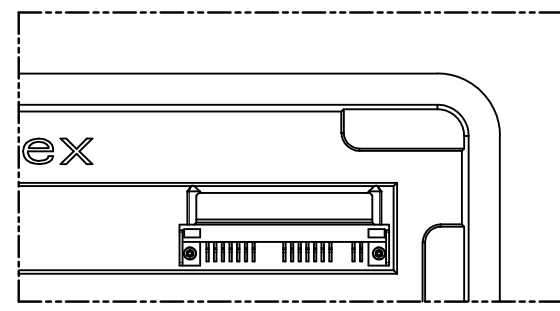
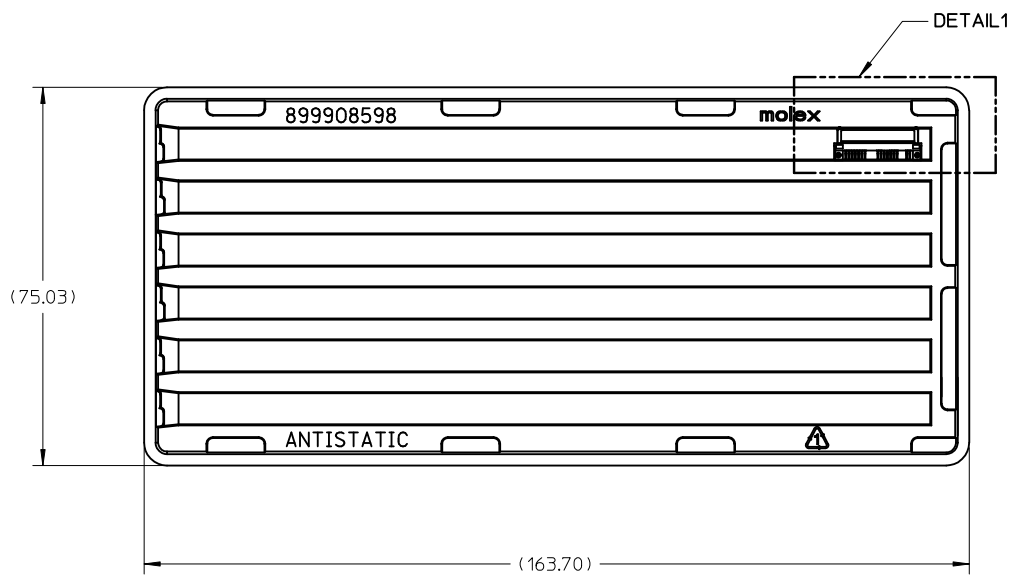
E

D

C

B

A



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

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