

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0879451001](#)
Status: **Active**
Description: 1.27mm (.050") Signal Pitch, 0.80mm (.031") SCSI Pitch, 1.27mm (.050") Power Pitch SAS Receptacle, Right Angle, Surface Mount, "Z" Height of 7.07mm (.278"), with Beveled Metal Pins, PCB Thickness 1.83mm (.072") to 2.20mm (.087"), 29 Circuits, Lead free

Documents:

[3D Model](#) [Product Specification PS-87945-034 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

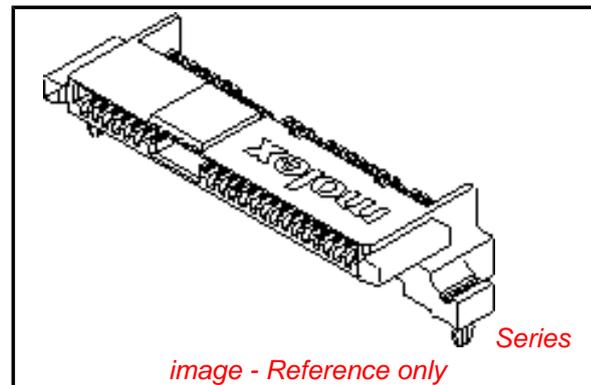
CSA LR19980

General

Product Family I/O Connectors
 Series [87945](#)
 Application Board-to-Board
 Comments PCB Forklock Must be Plated Through Hole regardless whether Forklock is soldered or not
 Component Type Receptacle
 Product Name SAS
 Type N/A

Physical

Boot Color N/A
 Circuits (Loaded) 29
 Circuits (maximum) 29
 Circuits Detail Signal 7, SCSI 7, Power 15
 Color - Resin Black
 Durability (mating cycles max) 500
 Flammability 94V-0
 Gender Female
 Keying to Mating Part Yes
 Lock to Mating Part None
 Material - Metal Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Number of Rows 2
 Orientation Right Angle
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.083 In
 PCB Thickness Recommended (mm) 2.10 mm
 Packaging Type Tray
 Panel Mount Yes
 Pitch - Mating Interface (in) 0.031 In, 0.050 In
 Pitch - Mating Interface (mm) 0.80 mm, 1.27 mm
 Pitch - Term. Interface (in) 0.031 In, 0.050 In
 Pitch - Term. Interface (mm) 0.80 mm, 1.27 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.76
 Plating min: Termination (µin) 102
 Plating min: Termination (µm) 2.54
 Polarized to Mating Part Yes
 Polarized to PCB Yes



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

[87945Series](#)

Mates With

[87679](#) , [87799](#) , [87703](#) , SFF 8482 Hard Disk Drive and Backplane Plug

| | |
|--------------------------------|---------------|
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | 0°C to +55°C |
| Termination Interface: Style | Surface Mount |
| Waterproof / Dustproof | No |
| Wire Size AWG | N/A |

Electrical

| | |
|-------------------------------|------|
| Current - Maximum per Contact | 1.5A |
| Shielded | No |
| 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 |

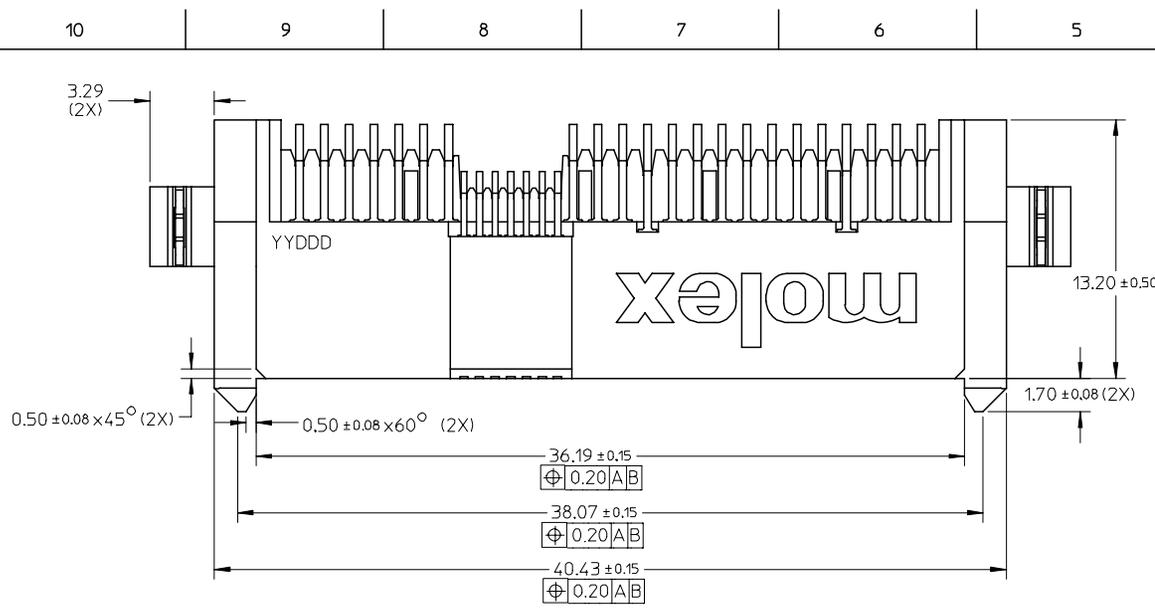
Material Info

Reference - Drawing Numbers

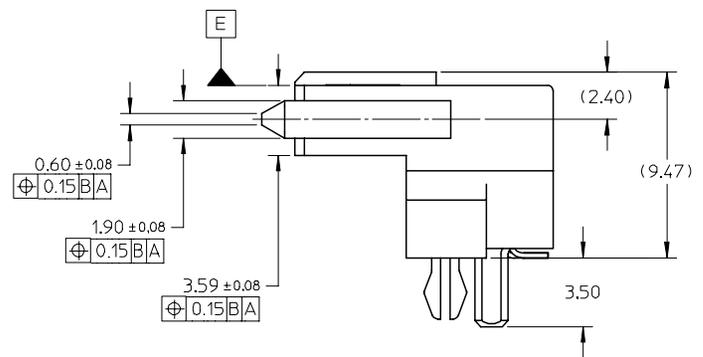
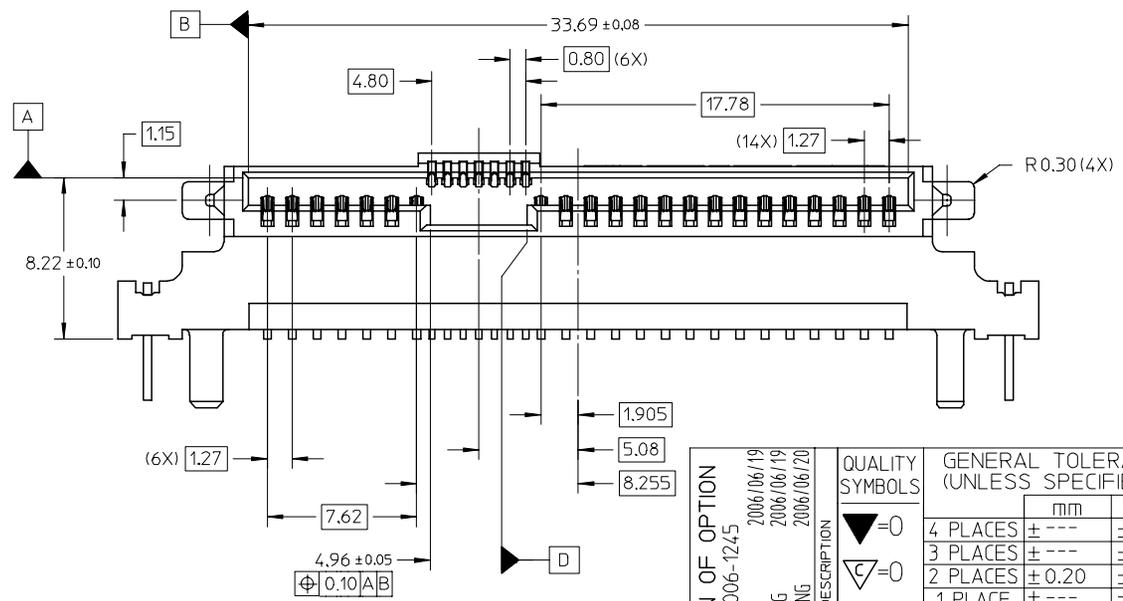
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| Packaging Specification | PK-87945-001 |
| Product Specification | PS-87945-034 |
| Sales Drawing | SD-87945-001 |

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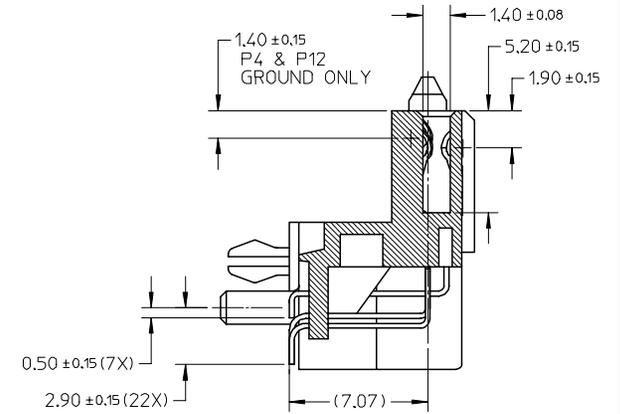
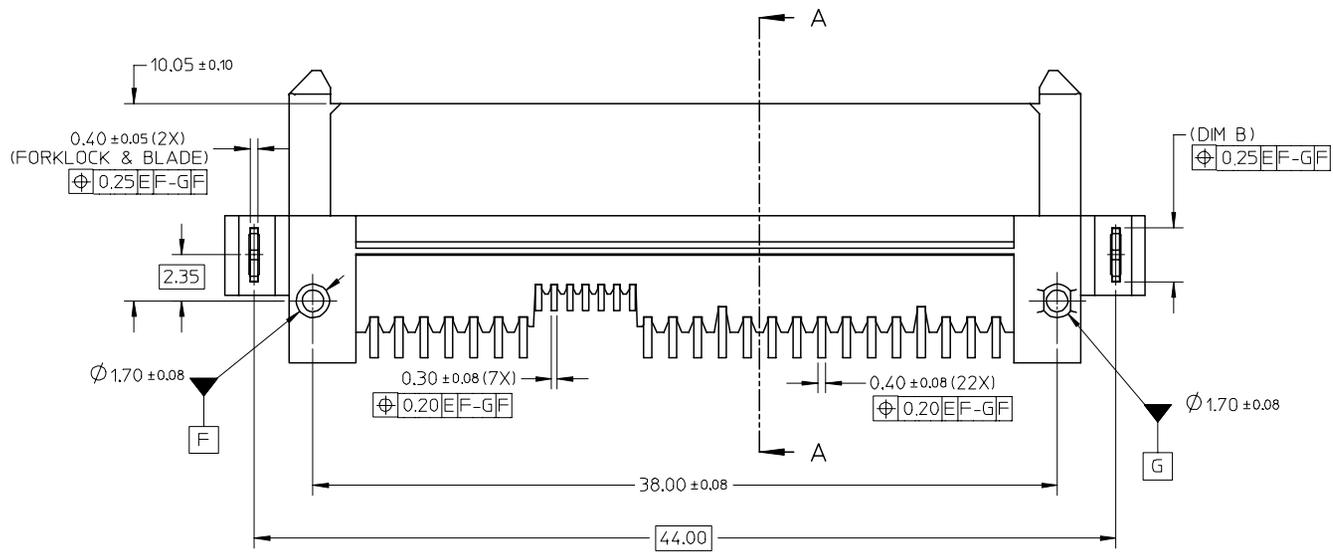
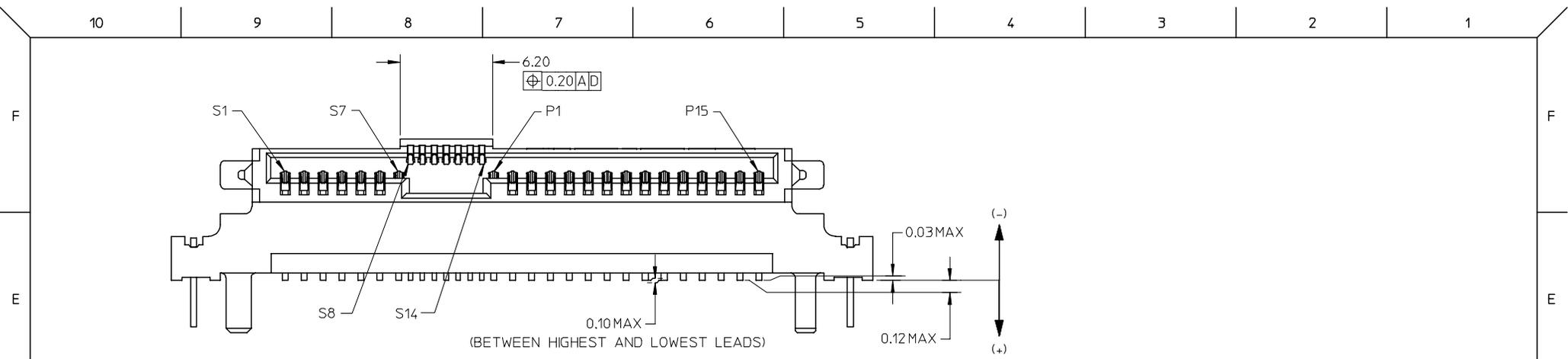
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- NOTES:
- MATERIAL
HOUSING: NYLON 9T, GLASS FILLED, UL 94V-0, BLACK
TERMINAL: COPPER ALLOY
FORK LOCK/BLADE: COPPER ALLOY
 - PLATING:
TERMINAL:
CONTACT: 0.76µm MIN. SELECTIVE GOLD OVER 1.27µm MIN. NICKEL UNDERPLATE
SOLDERTAIL: 2.54µm MIN. TIN OVER 1.27µm MIN. NICKEL UNDERPLATE
FORK LOCK/BLADE:
2.54µm MIN. TIN OVER 1.27µm MIN. NICKEL UNDERPLATE
 - MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
 - NON FUNCTIONAL CORE HOLE MAY VARY
 - THIS PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYL ETHERS.
 - PRODUCT SPECIFICATION PS-87945-034 APPLIES.
 - MATES WITH : SFF-8482 PLUG
SATA PLUG SERIES 87679, 87703 AND 87799
 - PACKAGING : TRAY

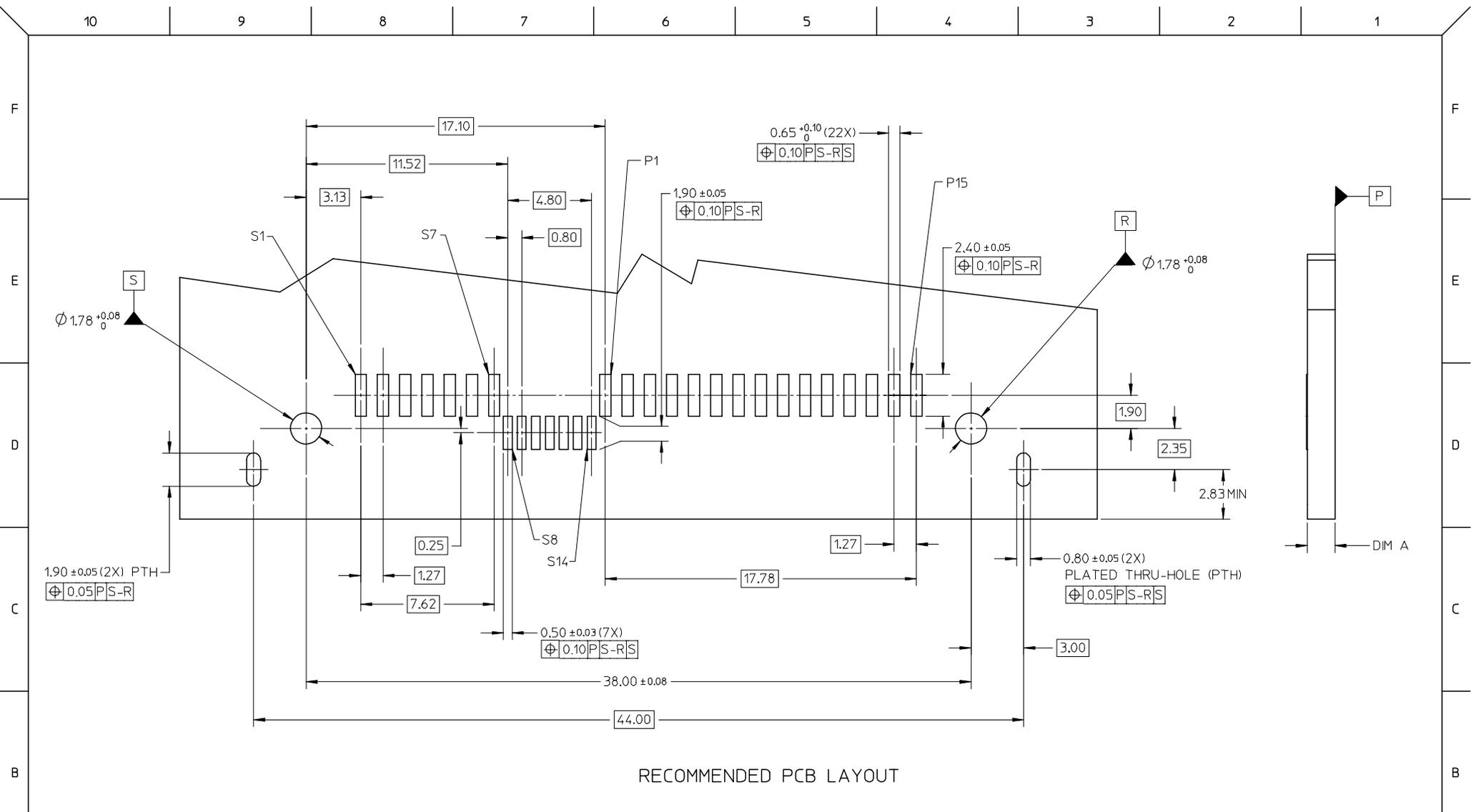


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|---|-------------------------------|---------------------------------------|----------|---|----------|------------------|---|--|
| ADDITION OF OPTION EC NO: S2006-1245 DRWN:YKH CHKD:SHH APPR:KCL 2006/06/19 2006/06/19 2006/06/20 | QUALITY SYMBOLS ▽=0 ◁=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | |
| | | | | MM ONLY | NTS | METRIC | | |
| | | 4 PLACES | ± --- | ± --- | DRAWN BY | DATE | TITLE | |
| | | 3 PLACES | ± --- | ± --- | KCHO | 2005/02/22 | SERIAL ATTACH SCSI RECEPTACLE, RIGHT-ANGLE SMT, 7.07MM HEIGHT | |
| 2 PLACES | ± 0.20 | ± --- | 2 PLACES | ± 0.20 | ± --- | APPROVED BY | DATE | |
| 1 PLACE | ± --- | ± --- | 1 PLACE | ± --- | ± --- | SKTOH | 2005/03/23 | |
| | | ANGULAR ± 3 ° | | MATERIAL NO. | | DOCUMENT NO. | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SEE TABLE | | SD-87945-001 | | SHEET NO. 1 OF 4 | | |
| | | SIZE A3 | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |



SECTION A-A

| | | | | | | | | |
|---|--|--------------------|--|--|------------------------------|---|--------------|------------------------|
| ADDITION OF OPTION EC NO: S2006-1245 DRWN:YKOH CHKD:SHONG APPR:KCLING | 2006/06/19 2006/06/19 2006/06/20 | DESCRIPTION REV | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| | | | $\nabla=0$ $\triangle=0$ | (UNLESS SPECIFIED) mm INCH | MM ONLY | NTS | METRIC | |
| | | | 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3° | DRAWN BY: KCHO CHECKED BY: DKOH APPROVED BY: SKTOH DATE: 2005/02/22 DATE: 2005/03/23 DATE: 2005/03/23 | TITLE | SERIAL ATTACH SCSI RECEPTACLE, RIGHT-ANGLE SMT, 7.07MM HEIGHT | | |
| | | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO. SEE TABLE | DOCUMENT NO. SD-87945-001 | MOLEX INCORPORATED | | SHEET NO. 2 OF 4 |

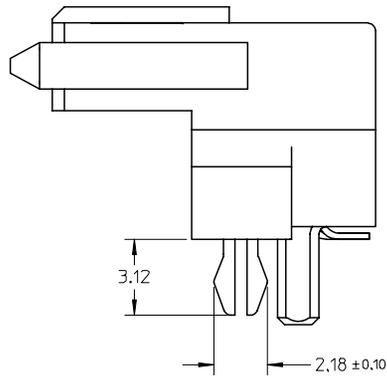


RECOMMENDED PCB LAYOUT

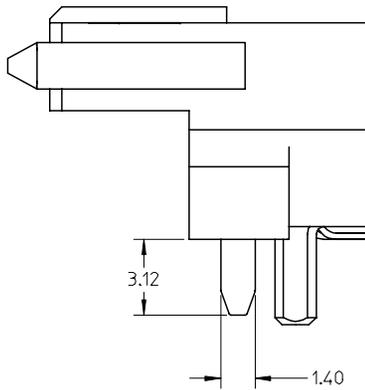
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|---|-------------------------------|--|--|----------------------------|--|---------------------|------------------------|---|--|--|
| ADDITION OF OPTION EC NO: S2006-1245 DRWN:YKH CHKD:SHH APPR:KCL 2006/06/19 2006/06/19 2006/06/20 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | | | DRAWN BY KCHO | | DATE 2005/02/22 | | SERIAL ATTACH SCSI RECEPTACLE, RIGHT-ANGLE SMT, 7.07MM HEIGHT MOLEX INCORPORATED | | |
| | | | | CHECKED BY DKOH | | DATE 2005/03/23 | | | | |
| | | | | APPROVED BY SKTOH | | DATE 2005/03/23 | | DOCUMENT NO. SD-87945-001 | | |
| REV | DESCRIPTION | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | MATERIAL NO. SEE TABLE | | SHEET NO. 3 OF 4 | | | | |

10 9 8 7 6 5 4 3 2 1

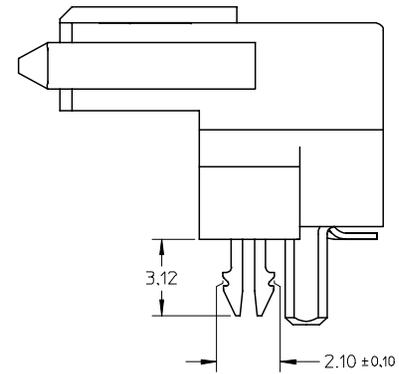
| | | | |
|-------------|-----------|---|--------|
| PART NUMBER | HOLD DOWN | DIM A (PCB THICKNESS) | DIM B |
| 87945-0001 | FORKLOCK | 1.60±0.10 | (2.18) |
| 87945-0002 | BLADE | - | (1.40) |
| 87945-1001 | FORKLOCK | 1.834±0.183 TO 2.20±0.22 PCB FORKLOCK HOLE MUST BE PLATED THRU-HOLE (PTH) REGARDLESS WHETHER FORKLOCK IS SOLDERED OR NOT | (2.10) |



87945-0001



87945-0002



87945-1001

| ADDITION OF OPTION EC NO: S2006-1245 DRWN:YKH CHKD:SHONG APPR:KCLING | 2006/06/19 2006/06/19 2006/06/20 | DESCRIPTION REV | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | | | | | | | | | | | | | | | | | | |
|--|--|--------------------|-----------------------------------|--|-----------------|-------|--------------|------------------------|-------|-------|----------|-------|-------|----------|--------|-------|---------|-------|-------|---------------|--|--|---------|-----|--------|--|
| | | | $\nabla=0$ $\sphericalangle=0$ | <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.20</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td colspan="3">ANGULAR ± 3 °</td> </tr> </table> | | mm | INCH | 4 PLACES | ± --- | ± --- | 3 PLACES | ± --- | ± --- | 2 PLACES | ± 0.20 | ± --- | 1 PLACE | ± --- | ± --- | ANGULAR ± 3 ° | | | MM ONLY | NTS | METRIC | |
| | | | | mm | INCH | | | | | | | | | | | | | | | | | | | | | |
| | | | 4 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | |
| 3 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 PLACES | ± 0.20 | ± --- | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 PLACE | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | | | | | |
| ANGULAR ± 3 ° | | | | | | | | | | | | | | | | | | | | | | | | | | |
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SERIAL ATTACH SCSI
 RECEPTACLE, RIGHT-ANGLE
 SMT, 7.07MM HEIGHT
 MOLEX INCORPORATED
 SD-87945-001
 SHEET NO. 4 OF 4

9 8 7 6 5 4 3 2 1