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**Part Number:** [0878240015](#)  
**Status:** **Active**  
**Description:** 1.27mm (.050") Signal Pitch, 0.80mm (.031") SCSI Pitch, 1.27mm (.050") Power Pitch  
SAS Receptacle, Vertical, Surface Mount, with Surface Mount Solder Tab, 2.54mm  
(.100") PCB Thickness, 29 Circuits, with Cap, Embossed Tape on Reel, Leadfree

**Documents:**

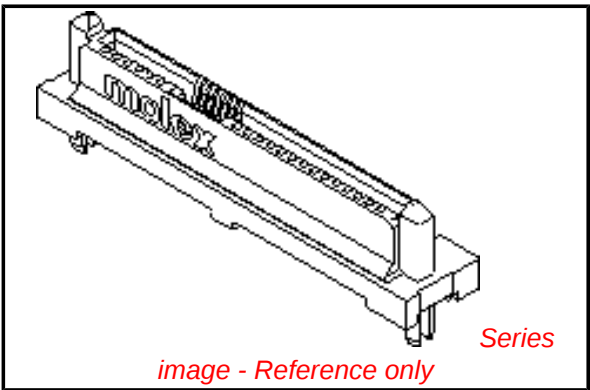
[3D Model](#) [Product Specification PS-87824-029 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

|                |                             |
|----------------|-----------------------------|
| Product Family | I/O Connectors              |
| Series         | <a href="#">87824</a>       |
| Application    | Board-to-Board              |
| Comments       | <LI>With Pick-and-Place Cap |
| 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                        |
| Gender                         | Female                     |
| Keying to Mating Part          | Yes                        |
| Lock to Mating Part            | None                       |
| Material - Metal               | Brass, Phosphor Bronze     |
| Material - Plating Mating      | Gold                       |
| Material - Plating Termination | Tin                        |
| Number of Rows                 | 2                          |
| Orientation                    | Vertical                   |
| PC Tail Length (in)            | 0.000 In                   |
| PC Tail Length (mm)            | 0.00 mm                    |
| PCB Locator                    | Yes                        |
| PCB Retention                  | Yes                        |
| PCB Thickness Recommended (in) | 0.100 In                   |
| PCB Thickness Recommended (mm) | 2.54 mm                    |
| Packaging Type                 | Embossed Tape on Reel      |
| 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                        |
| Surface Mount Compatible (SMC) | N/A                        |
| Temperature Range - Operating  | 0°C to +55°C               |
| Termination Interface: Style   | Surface Mount              |
| Waterproof / Dustproof         | No                         |



**EU RoHS**

**ELV and RoHS  
Compliant**

**REACH SVHC**

Not Reviewed

**Halogen-Free**

**Status**

**Not Halogen-Free**

**China RoHS**



**Need more information on product  
environmental compliance?**

Email [productcompliance@molex.com](mailto: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**

[87824Series](#)

**Mates With**

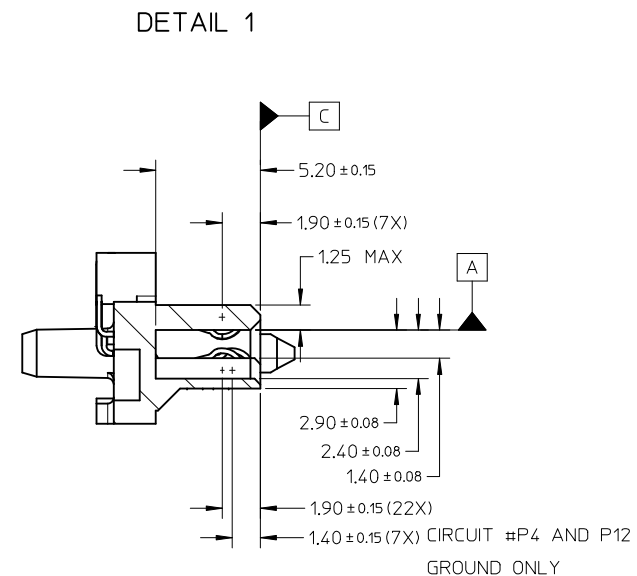
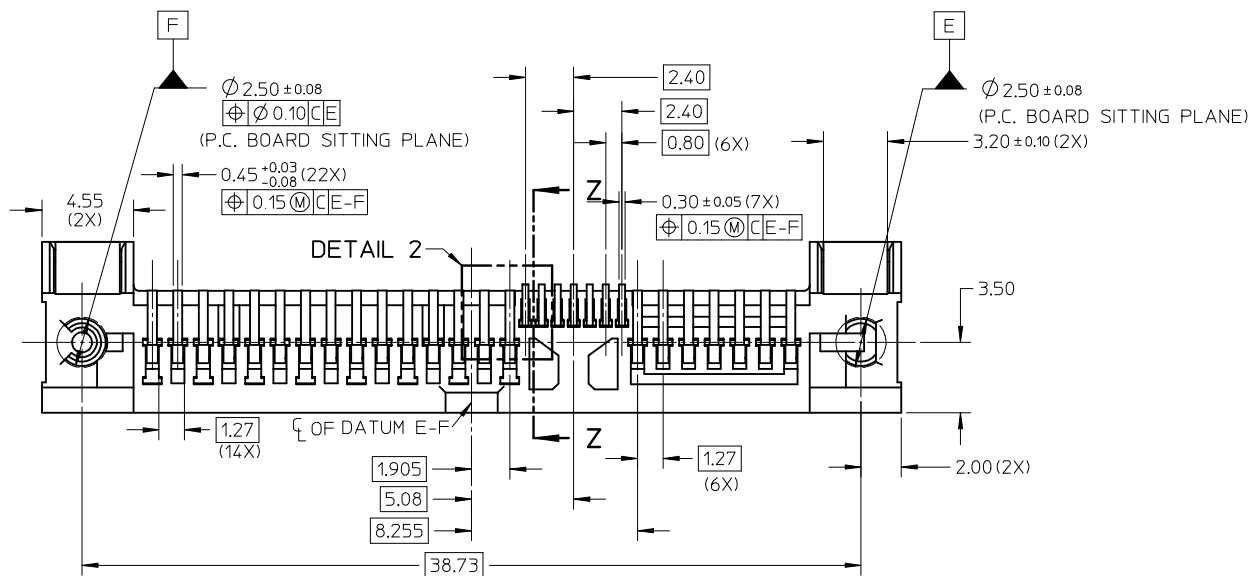
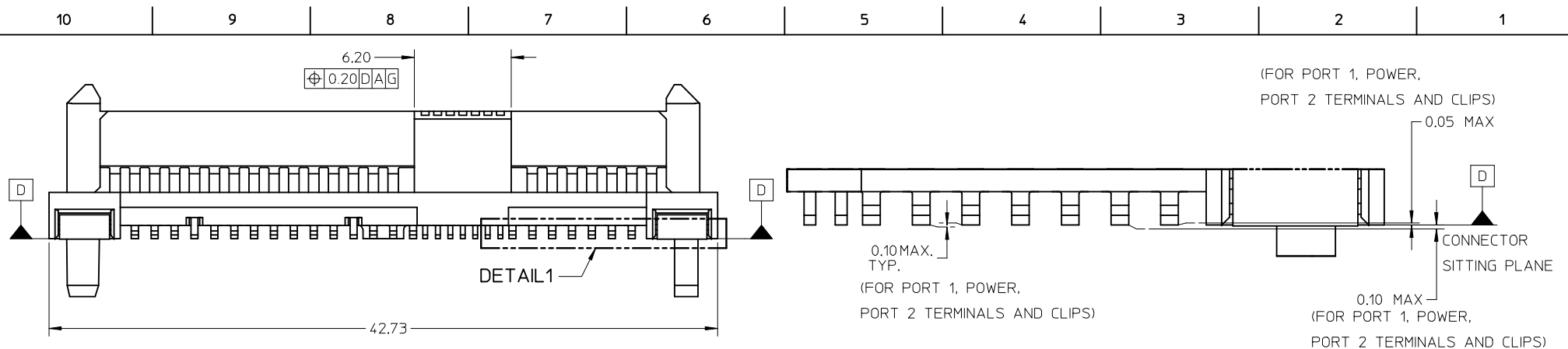
SFF-8482 Hard Disk Drive and Backplane  
Plug. [87679](#) Serial ATA Device Plug with  
Latch. [87703](#) Serial ATA Device Plug  
without Jumper. [87799](#) Serial ATA Device  
Plug with Jumper

|                                                |                           |
|------------------------------------------------|---------------------------|
| Wire Size AWG                                  | N/A                       |
| <b>Electrical</b>                              |                           |
| Current - Maximum per Contact                  | 1.5A                      |
| Shielded                                       | No                        |
| Voltage - Maximum                              | 30V                       |
| <b>Solder Process Data</b>                     |                           |
| 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                       |
| <b>Material Info</b>                           |                           |
| <b>Reference - Drawing Numbers</b>             |                           |
| Product Specification                          | PS-87824-029              |
| Sales Drawing                                  | SD-87824-031              |

This document was generated on 04/09/2010

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SECTION Z-Z

| REVISED    |            | QUALITY SYMBOLS |       | GENERAL TOLERANCES (UNLESS SPECIFIED) |     | DIMENSION STYLE                                                                                                               |        | SCALE   |        | DESIGN UNITS |  | THIRD ANGLE PROJECTION |  |
|------------|------------|-----------------|-------|---------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------|--------|---------|--------|--------------|--|------------------------|--|
| EC NO.     | DATE       | DRW             | CHK   | APP                                   | REV | mm                                                                                                                            | INCH   | NTS     | METRIC | METRIC       |  |                        |  |
| 52009-0197 | 2008/09/15 | KHLIM           | KHLIM | BOKOK                                 |     | 4 PLACES                                                                                                                      | ± ---  | MM ONLY |        |              |  |                        |  |
|            | 2008/09/16 |                 |       |                                       |     | 3 PLACES                                                                                                                      | ± ---  |         |        |              |  |                        |  |
|            | 2008/09/16 |                 |       |                                       |     | 2 PLACES                                                                                                                      | ± 0.20 |         |        |              |  |                        |  |
|            |            |                 |       |                                       |     | 1 PLACE                                                                                                                       | ± ---  |         |        |              |  |                        |  |
|            |            |                 |       |                                       |     | ANGULAR ± 3 °                                                                                                                 |        |         |        |              |  |                        |  |
|            |            |                 |       |                                       |     | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                                                          |        |         |        |              |  |                        |  |
|            |            |                 |       |                                       |     | SEE TABLE                                                                                                                     |        |         |        |              |  |                        |  |
|            |            |                 |       |                                       |     | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |        |         |        |              |  |                        |  |

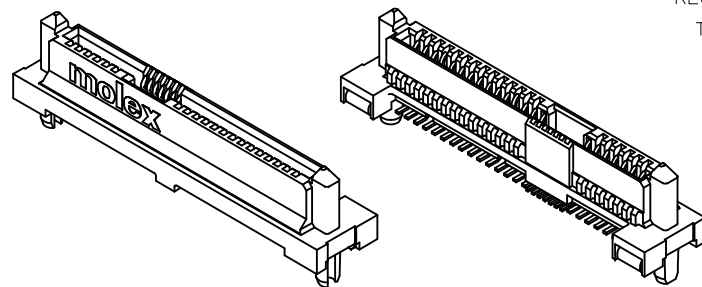
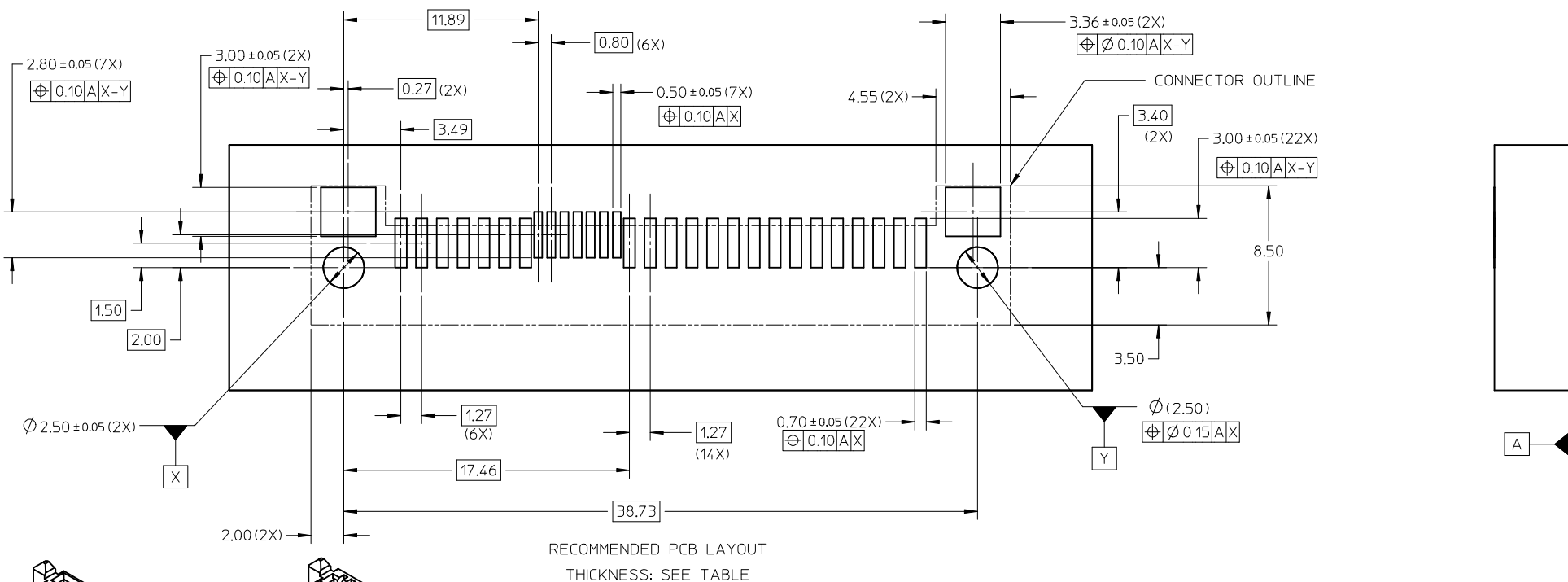
SERIAL ATTACH SCSI  
 STD HEIGHT BACKPLANE SMT  
 RECEPT (WITH SOLDER TAB)

MOLEX INCORPORATED

SD-87824-031

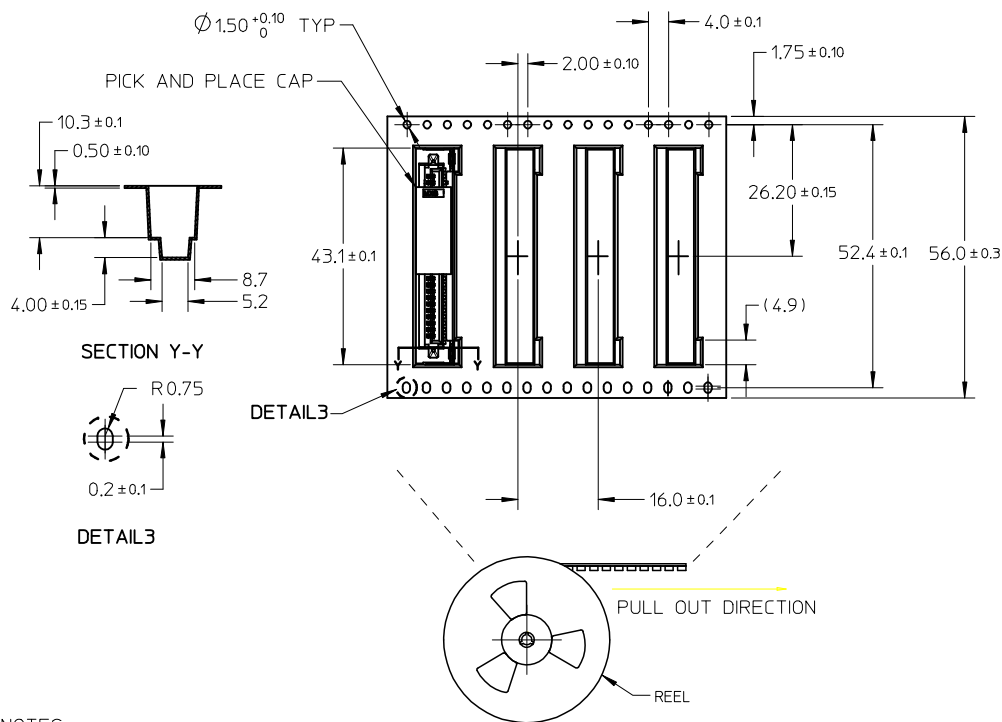
SHEET NO.  
 2 OF 4

| PART NO    | PACKAGING     | QUANTITY | PICK & PLACE CAP | DIM S (2X)<br>PEG HEIGHT | PCB THICKNESS |
|------------|---------------|----------|------------------|--------------------------|---------------|
| 87824-0004 | TRAY          | 50/TRAY  | YES              | 3.70                     | 4.57±0.10     |
| 87824-0008 | TRAY          | 30/TRAY  | NO               | 3.70                     | 4.57±0.10     |
| 87824-0010 | TAPE AND REEL | 350/REEL | YES              | 3.70                     | 4.57±0.10     |
| 87824-0013 | TRAY          | 50/TRAY  | YES              | 2.00                     | 2.54±0.10     |
| 87824-0014 | TRAY          | 30/TRAY  | NO               | 2.00                     | 2.54±0.10     |
| 87824-0015 | TAPE AND REEL | 350/REEL | YES              | 2.00                     | 2.54±0.10     |



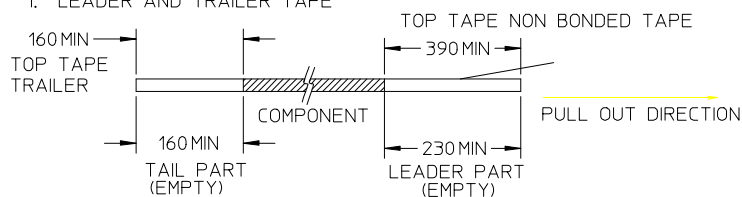
|                                                                                                                                  |                    |                                   |                                          |        |                            |                                                            |                    |                        |                                                                                                                 |                                                                                                                                       |                     |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------|------------------------------------------|--------|----------------------------|------------------------------------------------------------|--------------------|------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| REVISED<br>EC NO: S2009-0197<br>DRWN:KHLIM<br>CHKD:CGOH<br>APPR:BOKOK<br>A                                                       | DESCRIPTION<br>REV | QUALITY SYMBOLS<br><br>▽=0<br>▽=0 | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) |        | DIMENSION STYLE<br>MM ONLY |                                                            | SCALE<br>NTS       | DESIGN UNITS<br>METRIC |  THIRD ANGLE<br>PROJECTION | TITLE<br><br>SERIAL ATTACH SCSI<br>STD HEIGHT BACKPLANE SMT<br>RECEPT (WITH SOLDER TAB)<br><br>MOLEX INCORPORATED<br><br>SD-87824-031 | SHEET NO.<br>3 OF 4 |
|                                                                                                                                  |                    |                                   |                                          | mm     | INCH                       | DRAWN BY<br>KHLIM                                          | DATE<br>2005/07/07 |                        |                                                                                                                 |                                                                                                                                       |                     |
|                                                                                                                                  |                    |                                   | 4 PLACES                                 | ± ---  | ± ---                      | CHECKED BY<br>SHFONG                                       | DATE<br>2005/07/15 |                        |                                                                                                                 |                                                                                                                                       |                     |
|                                                                                                                                  |                    |                                   | 3 PLACES                                 | ± ---  | ± ---                      | APPROVED BY<br>SKTOH                                       | DATE<br>2005/07/15 |                        |                                                                                                                 |                                                                                                                                       |                     |
|                                                                                                                                  |                    |                                   | 2 PLACES                                 | ± 0.20 | ± ---                      | MATERIAL NO.<br>SEE TABLE                                  |                    |                        |                                                                                                                 |                                                                                                                                       |                     |
|                                                                                                                                  |                    |                                   | 1 PLACE                                  | ± ---  | ± ---                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                    |                        |                                                                                                                 |                                                                                                                                       |                     |
|                                                                                                                                  |                    | ANGULAR ± 3 °                     |                                          |        |                            | DOCUMENT NO.<br>SD-87824-031                               |                    |                        |                                                                                                                 |                                                                                                                                       |                     |
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TAPE AND REEL PACKAGING

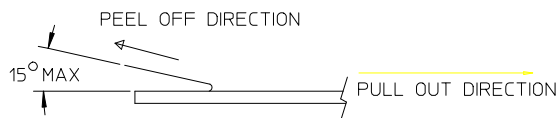


NOTES:

1. LEADER AND TRAILER TAPE



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

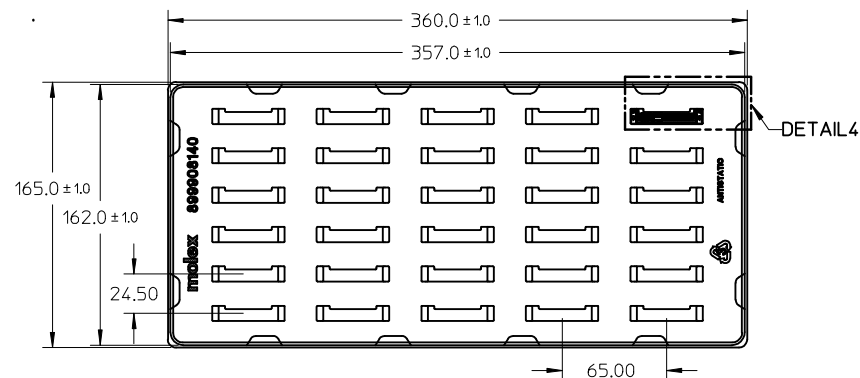


3. PACKAGING QTY: 350 PCS/REEL

4. PACKAGING STANDARD IS AS PER EIA-481.

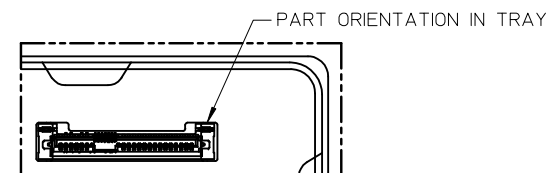
5. CONNECTOR COMES WITH PICK AND PLACE CAP.

TRAY PACKAGING



NOTES:

1. PACKAGING QTY: 30PCS/TRAY
2. NO PICK AND PLACE CAP



DETAIL4

|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  |                  |  |       |              |                        |  |       |                                                                            |                    |              |           |
|---------|-------------------|-------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|-------------|-----------------|---------------------------------------|--|------------------|--|-------|--------------|------------------------|--|-------|----------------------------------------------------------------------------|--------------------|--------------|-----------|
| REVISED | EC NO: S2009-0197 | 2008/09/15                                                                                                                    | 2008/09/16 | 2008/09/16 | 2008/09/16 | DESCRIPTION | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE  |  | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |  | TITLE | SERIAL ATTACH SCSI<br>STD HEIGHT BACKPLANE SMT<br>RECEPT (WITH SOLDER TAB) | MOLEX INCORPORATED | DOCUMENT NO. | SHEET NO. |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | MM ONLY          |  | NTS   | METRIC       |                        |  |       |                                                                            |                    |              |           |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | DRAWN BY DATE    |  |       |              |                        |  |       |                                                                            |                    |              |           |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | CHECKED BY DATE  |  |       |              |                        |  |       |                                                                            |                    |              |           |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | APPROVED BY DATE |  |       |              |                        |  |       |                                                                            |                    |              |           |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | MATERIAL NO.     |  |       |              |                        |  |       |                                                                            |                    |              |           |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | SIZE             |  |       |              |                        |  |       |                                                                            |                    |              |           |
|         |                   |                                                                                                                               |            |            |            |             |                 |                                       |  | A3               |  |       |              |                        |  |       |                                                                            |                    |              |           |
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