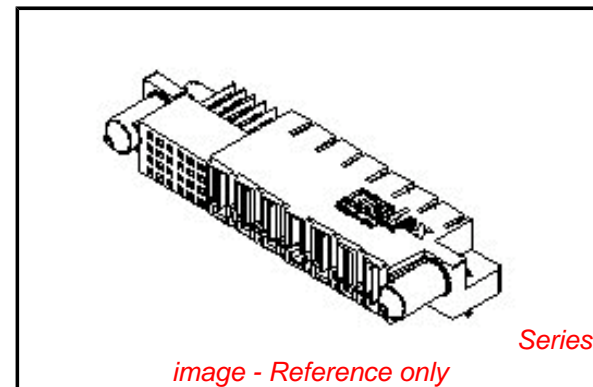


**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0877003002](#)  
**Status:** **Active**  
**Overview:** [extreme\\_powerplus\\_ssi](#)  
**Description:** 6.35mm (.250") Pitch, Power, 2.54mm (.100") Pitch, Signal, EXTreme PowerPlus™ Pa-S Receptacle, Through Hole, with Beveled Metal Pins, Right Angle, Signal 24, Power Alpha 7, 31 Circuits, Leadfree

**Documents:**

[3D Model](#) [Product Specification PS-87631-006 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)



*image - Reference only*

**General**

|                             |                                       |
|-----------------------------|---------------------------------------|
| Product Family              | PCB Receptacles                       |
| Series                      | <a href="#">87700</a>                 |
| Application                 | Board-to-Board                        |
| Comments                    | No Recessed Power Circuit Position    |
| Overview                    | <a href="#">extreme_powerplus_ssi</a> |
| Product Literature Order No | 987650-3002                           |
| Product Name                | EXTreme PowerPlus™                    |

**Physical**

|                                |                                |
|--------------------------------|--------------------------------|
| Circuits (Loaded)              | 31                             |
| Circuits Detail                | Signal 24, Power Alpha 7       |
| Color - Resin                  | Black                          |
| Durability (mating cycles max) | 100                            |
| Glow-Wire Compliant            | No                             |
| Guide to Mating Part           | Yes                            |
| 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                 | 4                              |
| Orientation                    | Right Angle                    |
| PC Tail Length (in)            | 0.135 In                       |
| PC Tail Length (mm)            | 3.43 mm                        |
| PCB Locator                    | No                             |
| PCB Retention                  | Yes                            |
| PCB Thickness Recommended (in) | 0.062 In                       |
| PCB Thickness Recommended (mm) | 1.57 mm                        |
| Packaging Type                 | Tray                           |
| Pitch - Mating Interface (in)  | 0.100 In, 0.250 In             |
| Pitch - Mating Interface (mm)  | 2.54 mm, 6.35 mm               |
| Pitch - Term. Interface (in)   | 0.100 In, 0.125 In             |
| Pitch - Term. Interface (mm)   | 2.54 mm, 3.18 mm               |
| Plating min: Mating (µin)      | 30.4                           |
| 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  | -20°C to +105°C                |
| Termination Interface: Style   | Through Hole                   |

**Electrical**

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**

**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**

[87700Series](#)

**Mates With**

[87696 EXTreme PowerPlus™ Pa-S Header](#)

|                               |           |
|-------------------------------|-----------|
| Current - Maximum per Contact | 2.5A, 30A |
| Voltage - Maximum             | 250V DC   |

**Solder Process Data**

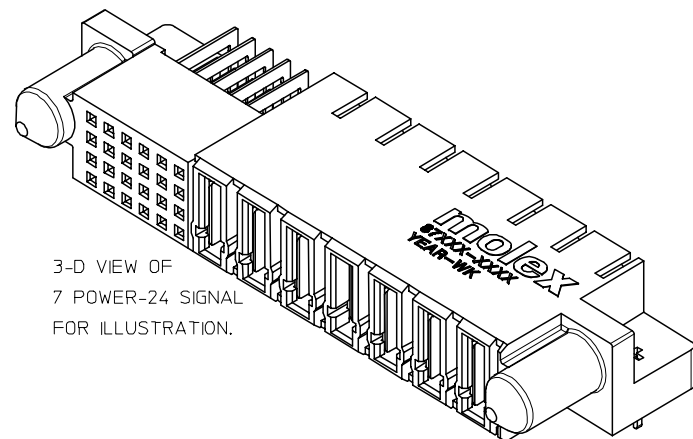
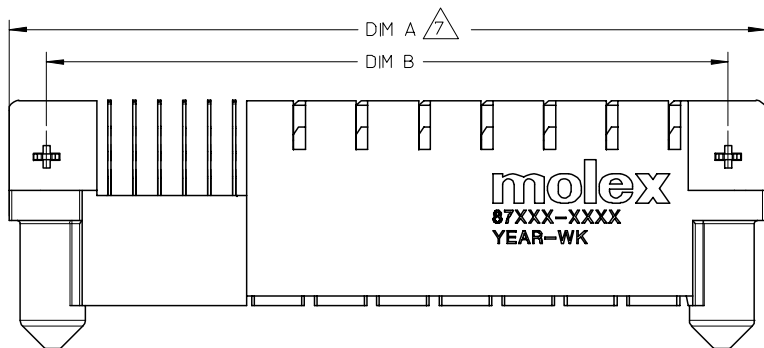
|  |                              |
|--|------------------------------|
| Duration at Max. Process Temperature (seconds) | 10                           |
| Lead-free Process Capability                   | SMC & Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature        | 3                            |
| Process Temperature max. C                     | 260                          |

**Material Info****Reference - Drawing Numbers**

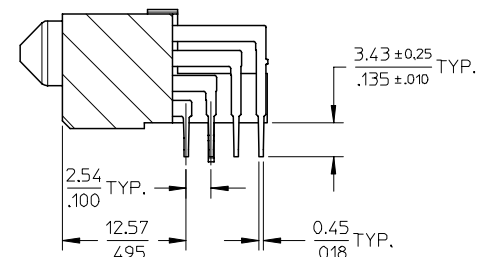
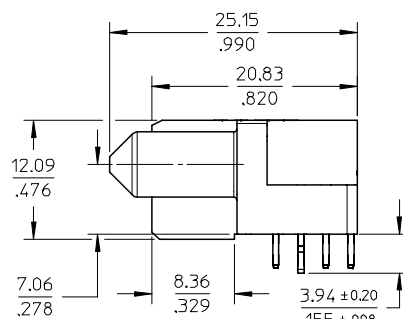
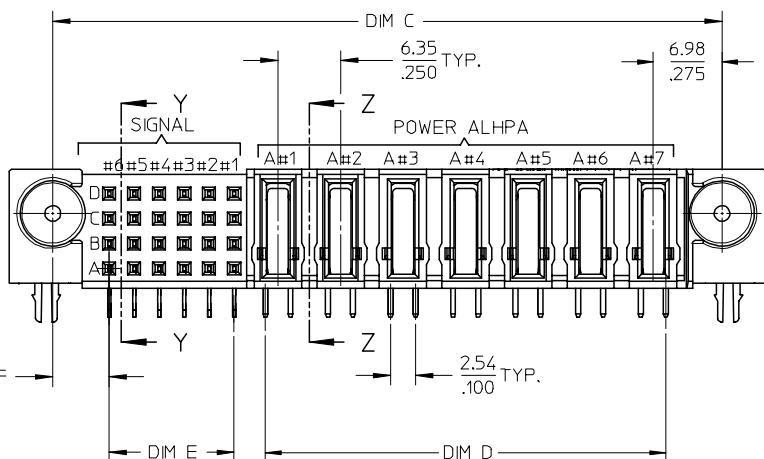
|                           |              |
|---------------------------|--------------|
| Application Specification | AS-87631-018 |
| Product Specification     | PS-87631-006 |
| Sales Drawing             | SD-87700-010 |

This document was generated on 05/22/2010

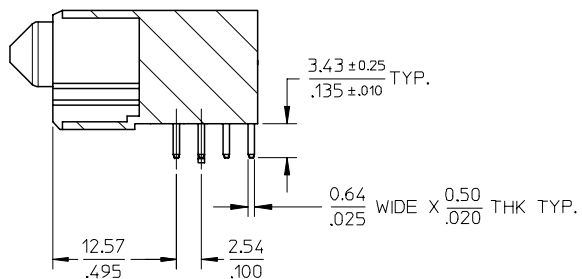
**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



3-D VIEW OF  
7 POWER-24 SIGNAL  
FOR ILLUSTRATION.



SECTION Y-Y



SECTION Z-Z

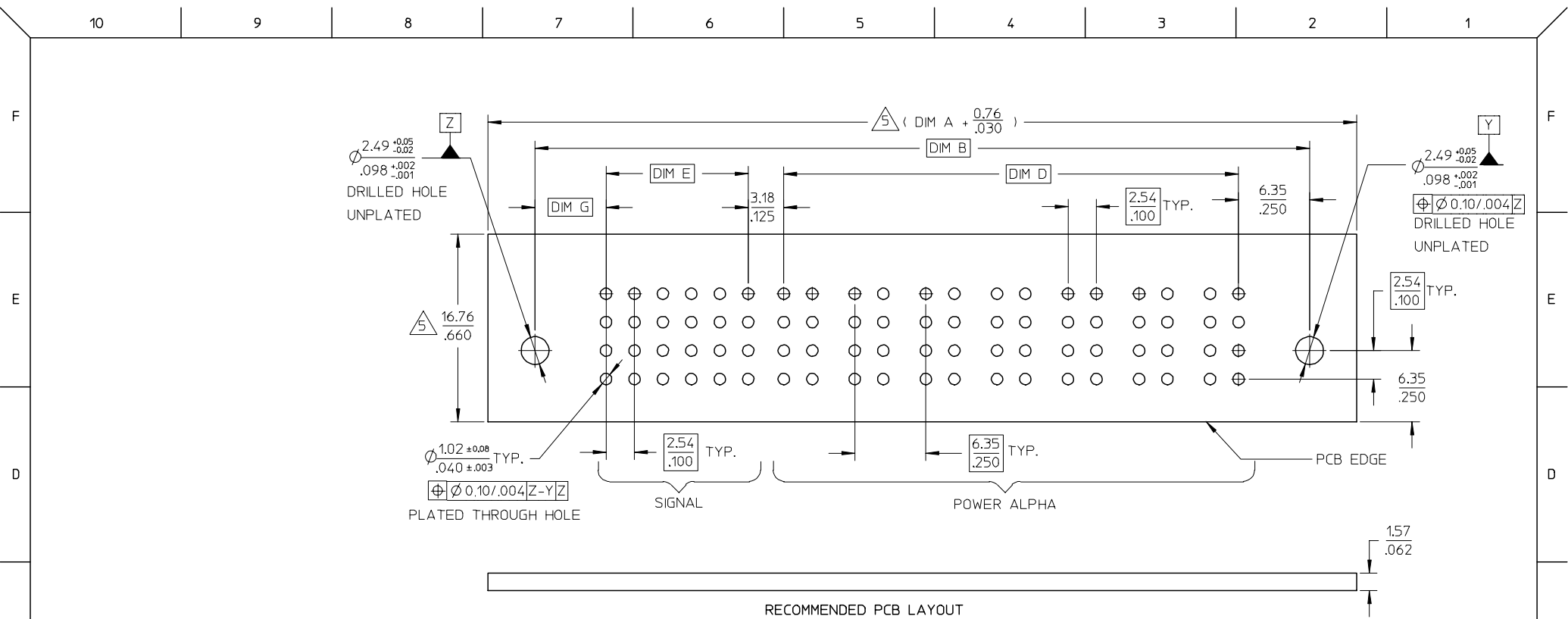
|                    |             |
|--------------------|-------------|
| PDR#S-001245-00-00 | 2006/05/09  |
| EC NO: S2006-1028  | 2006/05/09  |
| DRWN:KELIM         | 2006/05/10  |
| CHKD:MLONG         |             |
| APPR:PTLIM         |             |
| REV                | DESCRIPTION |
| D1                 |             |

|                 |     |
|-----------------|-----|
| QUALITY SYMBOLS | ▽=0 |
|                 | ∇=0 |

|  |                |
|--|----------------|
| GENERAL TOLERANCES (UNLESS SPECIFIED)                |                |
|  | mm INCH        |
| 4 PLACES   | ± .010 ± .0004 |
| 3 PLACES   | ± .025 ± .0010 |
| 2 PLACES   | ± 0.25 ± .0100 |
| 1 PLACE  | ± .000 ± .0001 |
| ANGULAR ± 3°   |                |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                |

|                 |            |
|-----------------|------------|
| DIMENSION STYLE |            |
| MM/IN           |            |
| DRAWN BY        | DATE       |
| KMGOH           | 2002/08/20 |
| CHECKED BY      | DATE       |
| PTLIM           | 2002/11/25 |
| APPROVED BY     | DATE       |
| SKTOH           | 2002/11/26 |
| MATERIAL NO.    |            |
| SEE TABLE       |            |
| SIZE            | A3         |

|   |              |                        |
|---|--------------|------------------------|
| SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION |
| NTS   | METRIC       |                        |
| TITLE   |              |                        |
| POWER CONNECTOR RECEPT.<br>P(A)-S CONFIGURATION<br>R/A, T/H, 6.35MM   |              |                        |
| MOLEX INCORPORATED  |              |                        |
| DOCUMENT NO.  | SHEET NO.    |                        |
| SD-87700-010  | 1 OF 3       |                        |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |              |                        |



- NOTES:
- MATERIALS : HOUSING - LCP, GLASS FILLED, UL 94V-0, COLOR: BLACK  
POWER PINS - COPPER ALLOY  
SIGNAL PINS - COPPER ALLOY  
BOARD LOCK - COPPER ALLOY
  - FINISHES: POWER AD SIGNAL PINS  
SELECTIVE GOLD IN THE CONTACT AREA  
THICKNESS = 0.76 MICROMETER / 30 MICROINCH MINIMUM  
SELECTIVE TIN IN THE PC TAIL AREA  
THICKNESS = 2.54 MICROMETER / 100 MICROINCH MINIMUM  
NICKEL OVERALL
  - PRODUCT SPECIFICATIONS : PS-87631-006
  - SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT AND THICKNESS
  - COMPONENT STAY AWAY ZONE FROM CONNECTOR
  - REFER TO THE TABLE ON TOP OF PAGE 3/3 FOR RECESSED PINS LOCATION
  - 7 POWER - 24 SIGNAL CONNECTOR IS SHOWN FOR ILLUSTRATION

|  |  |                                       |   |                          |                      |   |  |                        |  |
|--|--|---------------------------------------|---|--------------------------|----------------------|---|--|------------------------|--|
| PDR#S-001245-00-00<br>EC NO: S2006-1028<br>DRWN:KELIM 2006/05/09<br>CHKD:M.LONG 2006/05/09<br>APPR:PTL IM 2006/05/10<br>D1 | QUALITY SYMBOLS<br>$\nabla = 0$<br>$\triangle = 0$ | GENERAL TOLERANCES (UNLESS SPECIFIED) |   | DIMENSION STYLE<br>MM/IN |                      | SCALE<br>NTS  | DESIGN UNITS<br>METRIC   | THIRD ANGLE PROJECTION |  |
|  |  |                                       | mm  | INCH                     | DRAWN BY<br>KMG0H    | DATE<br>2002/08/20                                      | TITLE<br>POWER CONNECTOR RECEPT.<br>P(A)-S CONFIGURATION<br>R/A, T/H, 6.35MM |                        |  |
|  |  | 4 PLACES                              | $\pm$ ---   | $\pm$ ---                | CHECKED BY<br>PTL IM | DATE<br>2002/11/25                                      | MOLEX INCORPORATED   |                        |  |
|  |  | 3 PLACES                              | $\pm$ ---   | $\pm .010$               | APPROVED BY<br>SKT0H | DATE<br>2002/11/26                                      | DOCUMENT NO.<br>SD-87700-010   | SHEET NO.<br>2 OF 3    |  |
|  |  |                                       | 1 PLACE   | $\pm$ ---                | $\pm$ ---            | DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS |  |                        |  |
|  |  |                                       | ANGULAR $\pm 3^\circ$   |                          | SEE TABLE            |   |  |                        |  |
|  |  |                                       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                          |                      |   |  |                        |  |

| PART NUMBER | P-S CONFIGURATION |             | DIM A          | DIM B          | DIM C          | DIM D          | DIM E          | DIM F        | DIM G        | RECESS POWER PINS LOCATIONS | VOID PIN LOCATION | PACKAGING |
|-------------|-------------------|-------------|----------------|----------------|----------------|----------------|----------------|--------------|--------------|-----------------------------|-------------------|-----------|
|             | SIGNAL            | POWER ALPHA |                |                |                |                |                |              |              |                             |                   |           |
| 87700-3002  | 24                | 7           | 76.83<br>3.025 | 69.22<br>2.725 | 67.94<br>2.675 | 40.64<br>1.600 | 12.70<br>.500  | 5.72<br>.225 | 6.35<br>.250 | NIL                         | NIL               | TRAY      |
| 87700-3003  | 16                | 4           | 52.70<br>2.075 | 45.09<br>1.775 | 43.81<br>1.725 | 21.59<br>.850  | 7.62<br>.300   | 5.72<br>.225 | 6.35<br>.250 | NIL                         | NIL               | TRAY      |
| 87700-3005  | 16                | 4           | 52.07<br>2.050 | 44.45<br>1.750 | 43.18<br>1.700 | 21.59<br>.850  | 7.62<br>.300   | 5.08<br>.200 | 5.72<br>.225 | NIL                         | NIL               | TRAY      |
| 87700-3006  | 20                | 4           | 54.61<br>2.150 | 46.99<br>1.850 | 45.72<br>1.800 | 21.59<br>.850  | 10.16<br>0.400 | 5.08<br>.200 | 5.72<br>.225 | NIL                         | A2,B2,C2,D2       | TRAY      |

| PDR#S-001245-00-00<br>EC NO: S2006-1028<br>DRWN:KELIM 2006/05/09<br>CHKD:M.LONG 2006/05/09<br>APPR:PTLIM 2006/05/10<br>REV D1            | QUALITY SYMBOLS                                      | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE  | SCALE  | DESIGN UNITS                                  | THIRD ANGLE PROJECTION |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
|--|--|--|--|--|---|------------------------|--------|---------|----------|--------|--------|----------|--------|--------|---------|--------|--------|-------|-----|--------|--|
|  | = 0<br>= 0   | <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± .005</td> <td>± .0005</td> </tr> <tr> <td>3 PLACES</td> <td>± .005</td> <td>± .010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± .010</td> </tr> <tr> <td>1 PLACE</td> <td>± .005</td> <td>± .010</td> </tr> </tbody> </table> |  | mm   | INCH  | 4 PLACES               | ± .005 | ± .0005 | 3 PLACES | ± .005 | ± .010 | 2 PLACES | ± 0.25 | ± .010 | 1 PLACE | ± .005 | ± .010 | MM/IN | NTS | METRIC |  |
|  |  | mm   | INCH   |  |   |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
|  | 4 PLACES   | ± .005   | ± .0005  |  |   |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
|  | 3 PLACES   | ± .005   | ± .010   |  |   |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
| 2 PLACES   | ± 0.25   | ± .010   |  |  |   |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
| 1 PLACE  | ± .005   | ± .010   |  |  |   |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
| DESCRIPTION  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SEE TABLE  | DRAWN BY: KMG0H<br>CHECKED BY: PTLIM<br>APPROVED BY: SKT0H<br>DATE: 2002/08/20<br>DATE: 2002/11/25<br>DATE: 2002/11/26 | TITLE: POWER CONNECTOR RECEPT. P(A)-S CONFIGURATION R/A, T/H, 6.35MM<br>MOLEX INCORPORATED | DOCUMENT NO. SD-87700-010<br>SHEET NO. 3 OF 3 |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |
| SIZE A3<br>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |  |  |  |   |                        |        |         |          |        |        |          |        |        |         |        |        |       |     |        |  |