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Part Number:

0876802002

Status:

Active

Overview:

extreme\_powerplus\_ssi

Description:

6.35mm (.250") Pitch, Power, EXTreme PowerPlus™ All Power Receptacle, Press-fit, Vertical, 0.76µm (30µ") Gold (Au), 4 Circuits, Tin

Documents:

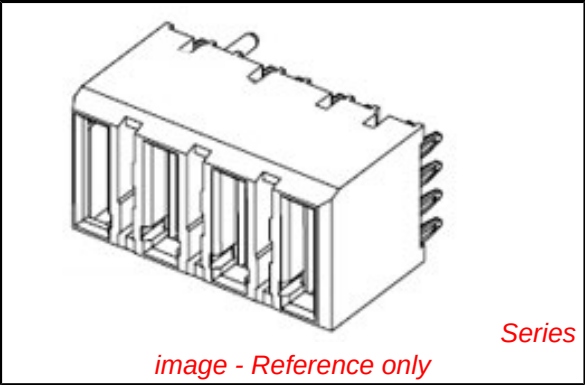
3D Model

Drawing (PDF)

Product Specification PS-87680-006 (PDF)

RoHS Certificate of Compliance (PDF)

|                                |                                          |
|--------------------------------|------------------------------------------|
| Agency Certification           |                                          |
| CSA                            | LR19980                                  |
| General                        |                                          |
| Product Family                 | PCB Receptacles                          |
| Series                         | 87680                                    |
| Application                    | Board-to-Board                           |
| Comments                       | Recessed Power Circuit Position: 2, 3, 4 |
| Overview                       | extreme_powerplus_ssi                    |
| Product Name                   | EXTreme PowerPlus™                       |
| Physical                       |                                          |
| Circuits (Loaded)              | 4                                        |
| Circuits Detail                | Power 4                                  |
| Color - Resin                  | Black                                    |
| Durability (mating cycles max) | 100                                      |
| Flammability                   | 94V-0                                    |
| Glow-Wire Compliant            | No                                       |
| Guide to Mating Part           | Yes                                      |
| Lock to Mating Part            | None                                     |
| Material - Plating Mating      | Gold                                     |
| Material - Plating Termination | Tin                                      |
| Material - Resin               | High Temperature Thermoplastic           |
| Number of Rows                 | 1                                        |
| Orientation                    | Vertical                                 |
| PC Tail Length (in)            | 0.135 In                                 |
| PC Tail Length (mm)            | 3.43 mm                                  |
| PCB Locator                    | No                                       |
| PCB Retention                  | Yes                                      |
| PCB Thickness Recommended (in) | 0.093 In                                 |
| PCB Thickness Recommended (mm) | 2.40 mm                                  |
| Packaging Type                 | Tray                                     |
| Pitch - Mating Interface (in)  | 0.250 In                                 |
| Pitch - Mating Interface (mm)  | 6.35 mm                                  |
| Plating min: Mating (µin)      | 30.4                                     |
| Plating min: Mating (µm)       | 0.76                                     |
| Plating min: Termination (µin) | 101.6                                    |
| Plating min: Termination (µm)  | 2.54                                     |
| Polarized to Mating Part       | Yes                                      |
| Polarized to PCB               | Yes                                      |
| Surface Mount Compatible (SMC) | No                                       |
| Temperature Range - Operating  | -20°C to +105°C                          |
| Termination Interface: Style   | Through Hole - Compliant Pin             |
| Electrical                     |                                          |
| Current - Maximum per Contact  | 30A                                      |



EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

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

87680Series

Mates With

87658 EXTreme PowerPlus™ Header

Voltage - Maximum

48V

Material Info

Reference - Drawing Numbers

Application Specification

AS-87631-018, AS-87633-007

Product Specification

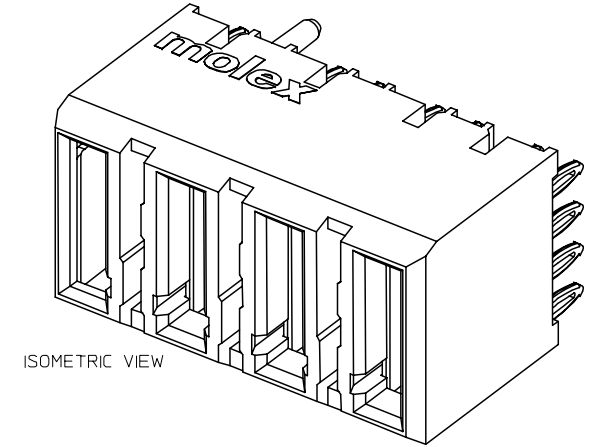
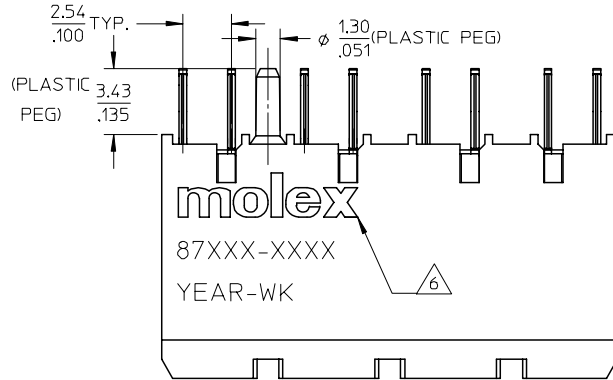
PS-87680-006

Sales Drawing

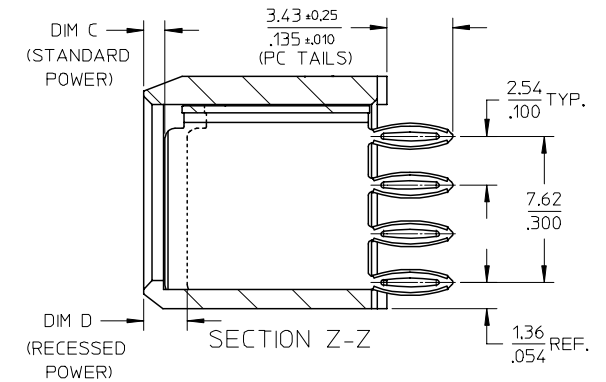
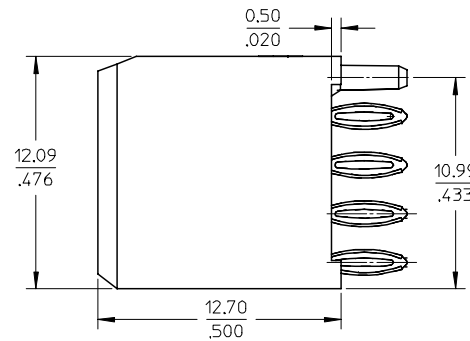
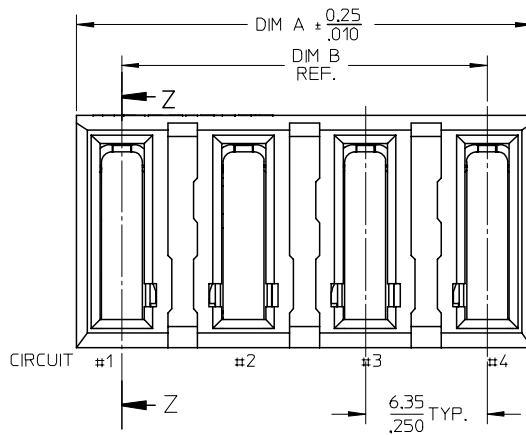
SD-87680-010

This document was generated on 05/21/2010

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ISOMETRIC VIEW



|                                                                                                                       |                 |             |                                       |  |                                                                                                                               |              |                                                                                  |                                                                                                              |                    |  |        |  |
|-----------------------------------------------------------------------------------------------------------------------|-----------------|-------------|---------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------|--|--------|--|
| ADD ASSY P/N FOR L/F<br>EC NO: S2005-0091<br>DRWN:NRVITAP 2004/08/10<br>CHKD:PTLM 2004/08/10<br>APPR:SCLOW 2004/08/11 | QUALITY SYMBOLS | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |  |                                                                                                                               | SCALE<br>NTS | DESIGN UNITS<br>METRIC                                                           |  THIRD ANGLE PROJECTION | REVISE ON CAD ONLY |  |        |  |
|                                                                                                                       |                 |             |                                       |  | DIMENSION STYLE                                                                                                               |              | TITLE<br><br>POWER CONN. RECEPTACLE<br>POWER CONFIGURATION<br>VERTICAL PRESS-FIT | MOLEX INCORPORATED                                                                                           |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | MM/IN                                                                                                                         |              |                                                                                  |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | DRAWN BY DATE                                                                                                                 |              |                                                                                  |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | KMG0H 2002/08/27                                                                                                              |              |                                                                                  |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | CHECKED BY DATE                                                                                                               |              | MATERIAL NO. DOCUMENT NO. SHEET NO.                                              |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | PTLIM 2002/11/25                                                                                                              |              |                                                                                  |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | APPROVED BY DATE                                                                                                              |              |                                                                                  |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  | SKTOH 2002/11/26                                                                                                              |              | SEE TABLE                                                                        |                                                                                                              | SD-87680-010       |  | 1 OF 2 |  |
|                                                                                                                       |                 |             |                                       |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |              | B                                                                                |                                                                                                              |                    |  |        |  |
|                                                                                                                       |                 |             |                                       |  |                                                                                                                               |              |                                                                                  |                                                                                                              |                    |  |        |  |

|   |             |                      |                          |               |               |              |              |                |               |           |        |                |                                                                                       |  |   |  |   |  |       |  |
|---|-------------|----------------------|--------------------------|---------------|---------------|--------------|--------------|----------------|---------------|-----------|--------|----------------|---------------------------------------------------------------------------------------|--|---|--|---|--|-------|--|
|   | 10          |                      | 9                        |               | 8             |              | 7            |                | 6             |           | 5      |                | 4                                                                                     |  | 3 |  | 2 |  | 87680 |  |
| F | PART NUMBER | NUMBER OF POWER PINS | RECESSED POWER CIRCUIT # | DIM A         | DIM B         | DIM C        | DIM D        | DIM E          | DIM F         | PACKAGING | STATUS | PLATING OPTION |                                                                                       |  |   |  |   |  |       |  |
|   | 87680-8001  | 2                    | 2                        | 11.05<br>.435 | 6.35<br>.250  | 1.12<br>.044 | 2.39<br>.094 | 13.63<br>.537  | 8.89<br>.350  | TRAY      | TOOLED | TIN/LEAD       |                                                                                       |  |   |  |   |  |       |  |
|   | 87680-8002  | 4                    | 2,3,4                    | 23.75<br>.935 | 19.05<br>.750 | 1.12<br>.044 | 2.39<br>.094 | 26.33<br>1.037 | 21.59<br>.850 | TRAY      | TOOLED | TIN/LEAD       |                                                                                       |  |   |  |   |  |       |  |
|   | 87680-2001  | 2                    | 2                        | 11.05<br>.435 | 6.35<br>.250  | 1.12<br>.044 | 2.39<br>.094 | 13.63<br>.537  | 8.89<br>.350  | TRAY      | TOOLED | TIN            |                                                                                       |  |   |  |   |  |       |  |
|   | 87680-2002  | 4                    | 2,3,4                    | 23.75<br>.935 | 19.05<br>.750 | 1.12<br>.044 | 2.39<br>.094 | 26.33<br>1.037 | 21.59<br>.850 | TRAY      | TOOLED | TIN            |                                                                                       |  |   |  |   |  |       |  |
|   |             |                      |                          |               |               |              |              |                |               |           |        |                | <div><div></div><div>5</div><div>(DIM E ± <math>\frac{0.76}{.030}</math>)</div></div> |  |   |  |   |  |       |  |

E

D

C

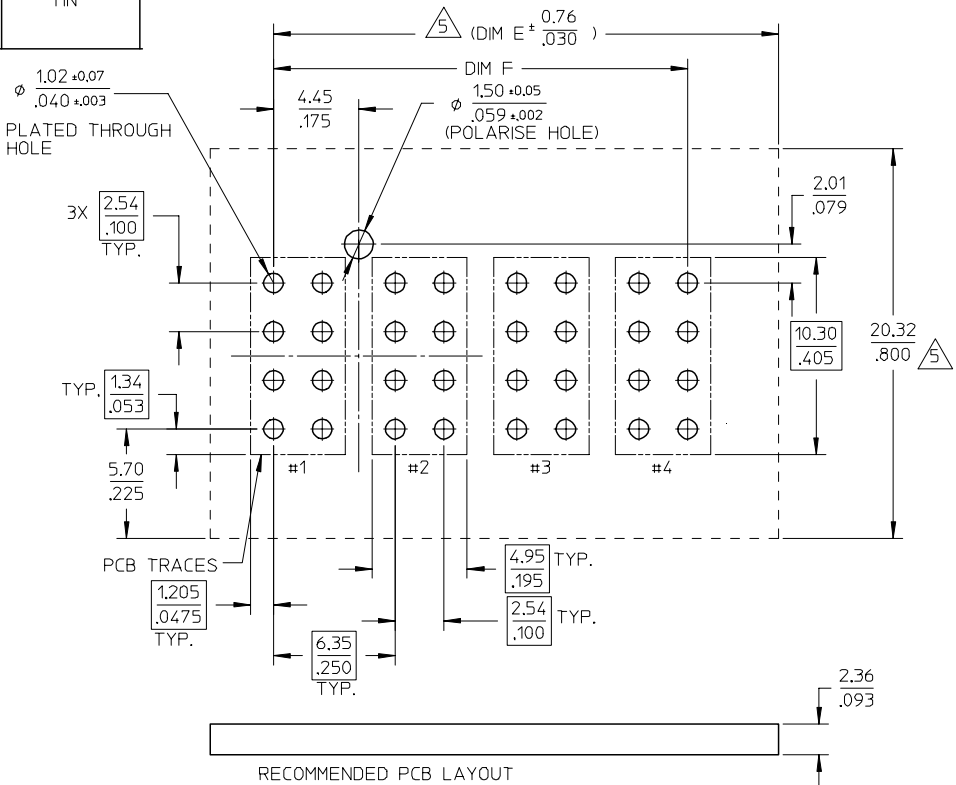
B

A

tb\_frame\_B  
rev. B1 2000/08/01

CONNECTOR - NOTES

- MATERIALS :
  - HOUSING - HIGH TEMPERATURE THERMO-PLASTIC, GLASS FILLED, UL94-0,COLOR:BLACK.
  - POWER PIN - COPPER ALLOY
- PLATING :
  - POWER CONTACTS
  - 0.76 MICROMETER MINIMUM GOLD (Au) AT CONTACT AREA AND
  - 2.54 MICROMETER MINIMUM TIN/LEAD OR TIN AT SOLDERTAIL AREA
  - OVER 1.27um MIN. NICKEL (Ni) UNDERPLATE.
- PRODUCT SPECIFICATION: PS-87680-006.
- PCB NOTE FOR DIAMETER 1.02/.040 PLATED HOLE.
  - DRILLED HOLE SIZE IS 1.151/.0453
  - PLATE WITH 0.007/.0003 MINIMUM TIN/LEAD OR TIN OVER 0.03/.001
  - TO 0.08/.003 COPPER PLATING TO ACHIEVE 1.02±0.08/.040±.003 HOLE.
  - SEE SHEET 2 FOR RECOMMENDED PCB LAYOUT.
- COMPONENT STAY AWAY ZONE FROM CONNECTOR.
- MANUFACTURER LOGO,PART NUMBER AND YEAR-WEEK CODE.



F

E

D

C

B

A

B

|                                                                                                                       |                                   |                                                                                                                                                                    |                                                                                                                               |                        |                                                                              |                     |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------|------------------------------------------------------------------------------|---------------------|
| ADD ASSY P/N FOR L/F<br>EC NO: S2005-0091<br>DRWN:NRVITAP 2004/08/10<br>CHKD:PTLM 2004/08/10<br>APPR:SCLOW 2004/08/11 | QUALITY SYMBOLS<br>▽ = 0<br>▽ = 0 | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± .005<br>2 PLACES ± 0.13 ± ---<br>1 PLACE ± --- ± ---<br>ANGULAR ± 3 ° | SCALE<br>NTS                                                                                                                  | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION                                                       | REVISE ON CAD ONLY  |
|                                                                                                                       |                                   |                                                                                                                                                                    | DIMENSION STYLE<br>MM/IN                                                                                                      |                        | TITLE<br>POWER CONN. RECEPTACLE<br>POWER CONFIGURATION<br>VERTICAL PRESS-FIT |                     |
|                                                                                                                       |                                   |                                                                                                                                                                    | DRAWN BY<br>KMG0H                                                                                                             | DATE<br>2002/08/27     | MOLEX INCORPORATED                                                           |                     |
|                                                                                                                       |                                   |                                                                                                                                                                    | CHECKED BY<br>PTLIM                                                                                                           | DATE<br>2002/11/25     | MATERIAL NO.<br>SEE TABLE                                                    |                     |
| C                                                                                                                     | REV                               | DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS                                                                                                            | APPROVED BY<br>SKTOH                                                                                                          | DATE<br>2002/11/26     | DOCUMENT NO.<br>SD-87680-010                                                 | SHEET NO.<br>2 OF 2 |
|                                                                                                                       |                                   |                                                                                                                                                                    | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |                                                                              |                     |