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Part Number: [0452801252](#)
Status: **Active**
Overview: [microfit_30](#)
Description: 3.00mm (.118") Pitch Micro-Fit 3.0 BMI CPI™ Compliant Pin Header, Blind Mate Interface, Dual Row, Vertical, 12 Circuits, PA Polyamide Nylon 4/6, UL 94V-0, 0.38µm (15µ") Gold (Au) Selective Contact Plating, Tin (Sn) Tail Plating

Documents:

[3D Model](#) [Product Specification PS-44300-001 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

| | |
|-----|-----------|
| CSA | LR19980 |
| TUV | R72081037 |
| UL | E29179 |

General

| | |
|-------------------------------|-------------------------------|
| Product Family | PCB Headers |
| Series | 45280 |
| Application | Board-to-Board, Wire-to-Board |
| Application Tooling Part Link | 622008400 |
| Overview | microfit_30 |
| Product Literature Order No | USA-106 |
| Product Name | Micro-Fit 3.0 BMI CPI™ |

Physical

| | |
|--------------------------------|--------------------------------|
| Breakaway | No |
| Circuits (Loaded) | 12 |
| Circuits (maximum) | 12 |
| Color - Resin | Black |
| Durability (mating cycles max) | 30 |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | Yes |
| Lock to Mating Part | None |
| Material - Metal | High Performance Alloy (HPA) |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Vertical |
| PC Tail Length (in) | 0.189 In |
| PC Tail Length (mm) | 4.80 mm |
| PCB Locator | Yes |
| PCB Retention | Yes |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.118 In |
| Pitch - Mating Interface (mm) | 3.00 mm |
| Plating min: Mating (µin) | 15 |
| Plating min: Mating (µm) | 0.375 |
| Plating min: Termination (µin) | 100 |
| Plating min: Termination (µm) | 2.5 |
| Polarized to Mating Part | Yes |
| Polarized to PCB | Yes |
| Shrouded | Fully |
| Stackable | No |

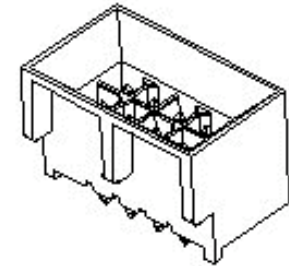


image - Reference only

Series

EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

China RoHS



Not Halogen-Free
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

[45280Series](#)

Mates With

[44133-1200](#) Panel Mount Receptacle,
[44769-1202](#) Vertical Receptacle Header,
[44764-1202](#) Right Angle Receptacle Header

Application Tooling | FAQ

Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.

Global

| Description | Product # |
|--|----------------------------|
| Micro-Fit™ Compliant Pin Insertion Flat Rock Tool | 0622008400 |

| | |
|--------------------------------|------------------------------|
| Surface Mount Compatible (SMC) | No |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole - Compliant Pin |

Electrical

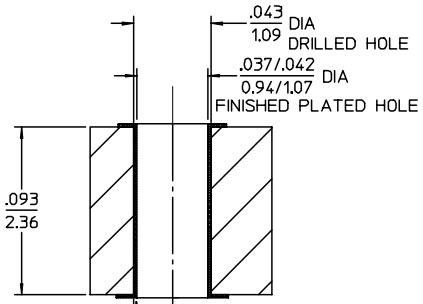
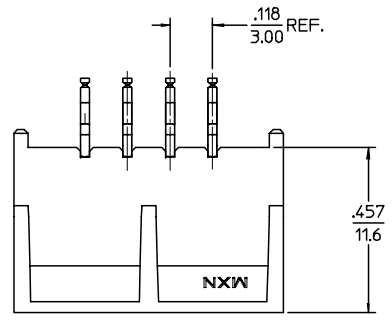
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|-------------------------------|------|
| Current - Maximum per Contact | 5A |
| Voltage - Maximum | 250V |

Material Info**Reference - Drawing Numbers**

| | |
|-------------------------|-----------------------------|
| Packaging Specification | PK-45280-002 |
| Product Specification | PS-44300-001, RPS-44300-001 |
| Sales Drawing | SD-45280-002 |
| Test Summary | TS-45280-001 |

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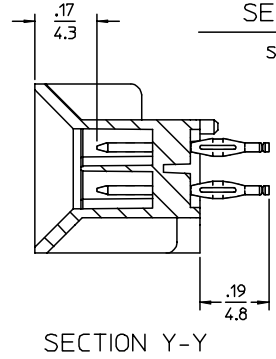
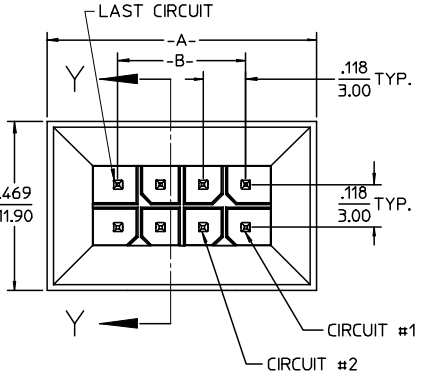
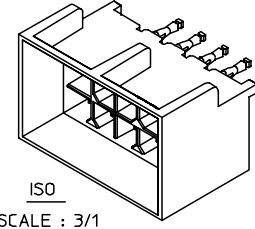
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| CIRCUIT SIZE | DIM. -A- | DIM. -B- | DIM. -C- | MATERIAL NUMBER | CIRCUIT SIZE | PLATING OPTION |
|--------------|-------------|-------------|-------------|-----------------|--------------|----------------|
| 04 | .512/13.00 | .118/3.00 | .472/12.00 | 452800452 | 04 | B |
| 06 | .630/16.00 | .236/6.00 | .590/15.00 | 452800453 | 04 | A |
| 08 | .748/19.00 | .354/9.00 | .709/18.00 | 452800652 | 06 | B |
| 10 | .866/22.00 | .472/12.00 | .827/21.00 | 452800653 | 06 | A |
| 12 | .984/25.00 | .590/15.00 | .945/24.00 | 452800852 | 08 | B |
| 14 | 1.102/28.00 | .709/18.00 | 1.063/27.00 | 452800853 | 08 | A |
| 16 | 1.220/31.00 | .827/21.00 | 1.181/30.00 | 452801052 | 10 | B |
| 18 | 1.338/34.00 | .945/24.00 | 1.299/33.00 | 452801053 | 10 | A |
| 20 | 1.457/37.00 | 1.063/27.00 | 1.417/36.00 | 452801252 | 12 | B |
| 22 | 1.575/40.00 | 1.181/30.00 | 1.535/39.00 | 452801253 | 12 | A |
| 24 | 1.693/43.00 | 1.299/33.00 | 1.653/42.00 | 452801452 | 14 | B |
| | | | | 452801453 | 14 | A |
| | | | | 452801652 | 16 | B |
| | | | | 452801653 | 16 | A |
| | | | | 452801852 | 18 | B |
| | | | | 452801853 | 18 | A |
| | | | | 452802052 | 20 | B |
| | | | | 452802053 | 20 | A |
| | | | | 452802252 | 22 | B |
| | | | | 452802253 | 22 | A |
| | | | | 452802452 | 24 | B |
| | | | | 452802453 | 24 | A |

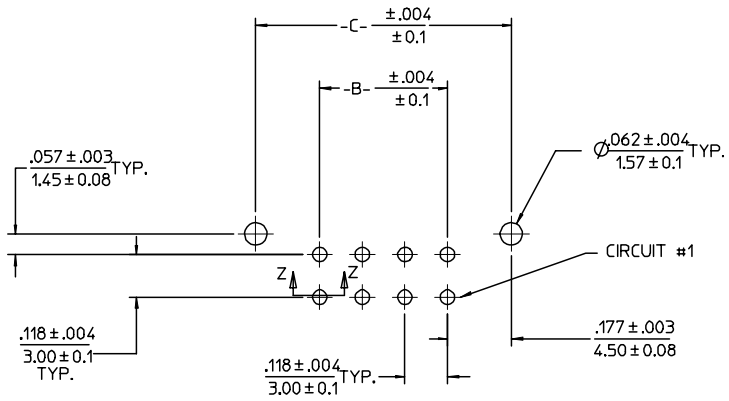
.0013
.0033
MIN
ELECTRO-DEPOSITED
COPPER

.0004
0.010
MAX TIN/LEAD PLATE



SECTION Z-Z
SCALE : 20/1

SECTION Y-Y



RECOMMENDED PCB LAYOUT
(COMPONENT SIDE)
RECOMMENDED PCB THICKNESS .093/2.36 MIN.

NOTES:

- MATERIALS:
HOUSING: GLASS FILLED NYLON, UL94V-0, COLOR: BLACK,
TERMINALS: COPPER ALLOY.
- FINISH:
A= .000030/(0.00075) MIN. GOLD IN SELECTIVE AREA AND .00010/(0.0025) MIN TIN ON PCB TAILS BOTH OVER .000050/(0.0013) NICKEL OVERALL.
B= .000015/(0.00038) MIN. GOLD IN SELECTIVE AREA AND .00010/(0.0025) MIN TIN ON PCB TAILS BOTH OVER .000050/(0.0013) NICKEL OVERALL.
- PRODUCT SPECIFICATION: PS-44300-001
- PACKAGING SPECIFICATION: PK-45280-002.
- THIS ASSEMBLY MATES WITH MOLEX BMI PANEL MOUNT RECEPTACLE (SEE DRAWING SD-44133-001) WITH FEMALE CRIMP TERMINAL (SEE DRAWING SD-43030-****) AND BMI RECEPTACLE HEADERS (SEE DRAWING SD-44764-001 OR SD-44769-001).
- THIS HEADER REQUIRES A MOLEX INSERTION TOOL (62200-8400) TO PROPERLY INSTALL IT TO THE PCB.

| | | | | | | |
|---|--|--|--|--|--|------------------|
| UPDATE PK SPEC FC NO: UCP2006-2769 DRAWN: RINDER 2006/07/24 CHKD: SDOUSEK 2006/07/24 APPR: F SMITH 2006/07/31 REVISION DESCRIPTION | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± .015 1 PLACE ± 0.38 ± --- ANGULAR ±1/2° | DIMENSION STYLE IN/MM DRAWN BY: RHLTS DATE: 2004/07/20 CHECKED BY: SCHMIDT DATE: 2004/07/20 APPROVED BY: F SMITH DATE: 2004/07/20 MATERIAL NO. DOCUMENT NO. | SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION | MICRO-FIT (3.0) DUAL ROW VERTICAL BMI CPI HEADER-ASSY, LEAD-FREE MOLEX MOLEX INCORPORATED | SHEET NO. 1 OF 1 |
| | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SEE CHART | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |