

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

**Part Number:** [0452802453](#)  
**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, 24 Circuits, PA Polyamide Nylon 4/6, UL 94V-0, 0.76µm (30µ") 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	<a href="#">45280</a>
Application	Board-to-Board, Wire-to-Board
Application Tooling Part Link	622008400
Overview	<a href="#">microfit_30</a>
Product Literature Order No	USA-106
Product Name	Micro-Fit 3.0 BMI CPI™

**Physical**

Breakaway	No
Circuits (Loaded)	24
Circuits (maximum)	24
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)	30
Plating min: Mating (µm)	0.75
Plating min: Termination (µin)	100
Plating min: Termination (µm)	2.5
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Fully
Stackable	No

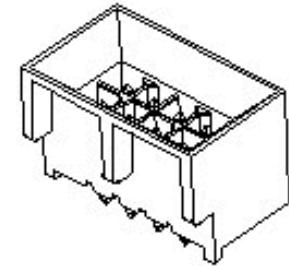


image - Reference only

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](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**

[45280Series](#)

**Mates With**

[44133-2400](#) Panel Mount Receptacle,  
[44769-2403](#) Vertical Receptacle Header,  
[44764-2403](#) 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	<a href="#">0622008400</a>

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

**Electrical**

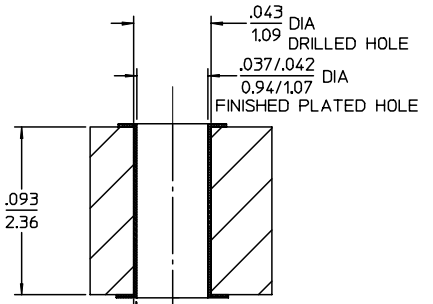
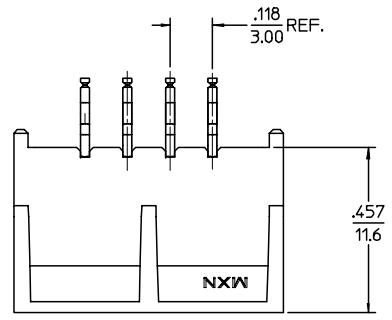
Current - Maximum per Contact	5A
Voltage - Maximum	250V

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

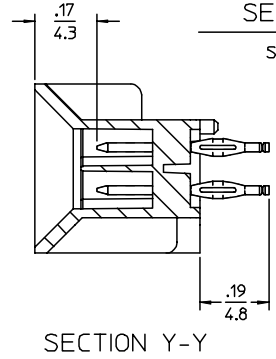
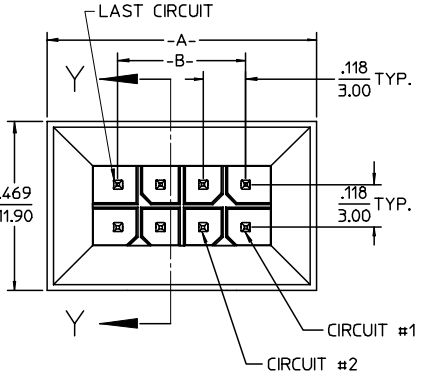
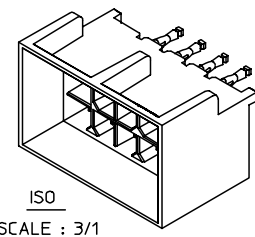
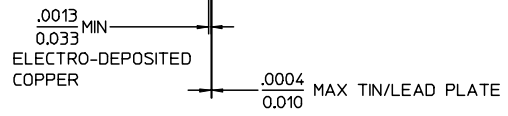
Packaging Specification	PK-45280-002
Product Specification	PS-44300-001, RPS-44300-001
Sales Drawing	SD-45280-002
Test Summary	TS-45280-001

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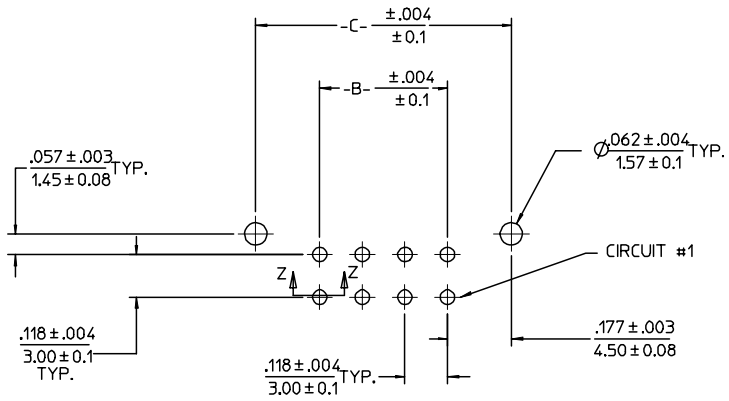


CIRCUIT SIZE	DIM. -A-	DIM. -B-	DIM. -C-	MATERIAL NUMBER	CIRCUIT SIZE	PLATING OPTION
04	.512/13.00	.118/3.00	.472/12.00	452800452	04	B
06	.630/16.00	.236/6.00	.590/15.00	452800453	04	A
08	.748/19.00	.354/9.00	.709/18.00	452800652	06	B
10	.866/22.00	.472/12.00	.827/21.00	452800653	06	A
12	.984/25.00	.590/15.00	.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



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: FSMITH 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: FSMITH DATE: 2004/07/20 MATERIAL NO.	SCALE: 4:1 DESIGN UNITS: METRIC THIRD ANGLE PROJECTION
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART	TITLE: MICRO-FIT (3.0) DUAL ROW VERTICAL BMI CPI HEADER-ASSY, LEAD-FREE MOLEX MOLEX INCORPORATED DOCUMENT NO. SD-45280-002 SHEET NO. 1 OF 1