# 3M<sup>™</sup> Mini-Clamp Socket

### 2 mm, Surfacemount, Right Angle



### **Physical**

### 372 Series

- · Low profile design minimizes overall thickness
- Compact design saves board space
- Multiple PCB locating post layouts to ensure competitive compatibility
- Solder tab design helps ensures a reliable solder joint
- Mating Latch feature provides a reliable interconnection in demanding applications
- High number of mating cycles (300)
- Maximum current rating of 3 Amps
- Dust cover accessory available for use in harsh environment
- RoHS Compliant. See paragraphs E1 and C1 or Regulatory Information Appendix.

Date Modified: July 11, 2008

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Material:	LCP
Flammability:	UL 94V-0
Color:	Black
<b>Contact:</b>	
Material:	Copper Alloy
Plating:	
Underplating:	Ni
Wiping Area:	$0.2 \mu m  [8 \mu]$ min Gold with Lubricant
Soldertails:	Gold Flash
Marking:	3M Logo, Position Indicator, Insulator Material

### Electrical

Current Rating: 3.0 A

**Insulation:** 

#### **Environmental**

Temperature Rating:-20°C to +85°C ambient (1.0 A max.)<br/>-20°C to +75°C ambient (2.0 A max.)<br/>-20°C to +60°C ambient (3.0 A max.)<br/>(Note: UL rating is 65 C at 3.0 A, 32 V)Process Rating:245°C max. SMT reflow<br/>390°C max. for soldering iron

UL File No.: E68080

## 3M<sup>™</sup> Mini-Clamp Socket

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#### 3 and 4 Position Socket Locating Posts: None Locating Posts: Yes 372XX - 12E0-004 PL 372XX - 1AEO-004 PL 14.1 [0.555] 12.6 [0.496] 11.4 [0.449] A Type A 372XX - 18E0-004 PL 2.00 [0.079] 0.25 [0.01] 7.7 [0.303] 夏夏夏夏 7.3[0.288] [0.028] 3.0 [0.118] 375 D 0.7 **B** Type φ, ø 0.6 [0.024] <u>2.00 [0.0</u>79] mm [inch] **Tolerance Unless Noted** В С D Е Pins А .00 .000 .0 13.8 [0.54] 5.75 [.23] 4.65 [0.18] 11.6 [0.46] 4.00 [0.157 3 ±.3 ±.13 mm 4 15.8 [0.62] 6.75 [0.27] 5.65 [0.22] 13.6 [0.54] 6.00 [0.236] [],() Dimensions for Reference Only **Ordering Information** 372XX-1XE0-00X PL (RIA E1 and C1 Apply) Available Combinations 37203-1AE0-003 PL 37203-1BE0-003 PL Positions Locating Posts Mating Plug Size 37203-12E0-003 PL 03 or 04 A = Asymmetric 3 or 4 37204-1AE0-004 PL B= Symmetric 37204-1BE0-004 PL 2 = None

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37204-12E0-004 PL

# $3M^{\text{TM}}$ Mini-Clamp Socket

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**PCB** Layout 37203-1AE0-003 PL 37203-18E0-003 PL (1.1) (1.1) 11.60 ±0.05 11.60 ±0.05 4.65 ±0.05 4.65 ±0.05 (0.25) (0.25) Ø 1.00 ±0.05 THROUGH HOLE FOR Ø 1.30 ±0.05 THROUGH HOLE FOR LOCATING POST Ø 1.30 ±0.05 THROUGH HOLE FOR LOCATING POST 3 Pin 2010 563 8 ÷. 3**.**00 (1.75) (1.75) 5.75 [0.226] 5.75 [0.226] EDGE OF BOARD LEDGE OF BOARD 8 00 (0 31 (13.8) (13.8) 37204-18E0-004 PL 37204-1AE0-004 PL (1.1) (1.1) 13.60 ±0.05 13.60 ±0.05 5.65 ±0.05 5.65 ±0.05 6.00 [0.236] 6.00 [0.236] 2 00 (0 079) 2.00 (0.079) Ø 1.00 ±0.05 -THROUGH HOLE FOR LOCATING POST 0.25) 1.20(0.079 1.20(0.079) 向 匝 **Xiy-Xi**y Ø 1.30 ±0.05 THROUGH HOLE FOR LOCATING POST Ø 1.30 ±0.05 THROUGH HOLE FOR LOCATING POST 4 Pin 8 å 8 (1.75) (1.75) 6.75 [0.266] 6.75 [0.266] EDGE OF BOARD EDGE OF BOARD 0.00 [0.394 10.00 (0.39 (15.8) (15.8) Type B Type A Type 2: , ДСРК 1234 BBBB 37203-12E0-003 PL 37204-12E0-004 PL Use Type A or B PCB layout and R - A remove through holes. THE CONNECTOR MOUNTING SURFACE SEE NOTE-1 ŧ ••• 00 ġ, 8 mm [inch] 0 **Tolerance Unless Noted** .0 .00 .000 <u>detail a</u> DETAIL B mm ±.3 ±.13 [], () Dimensions for **Reference** Only

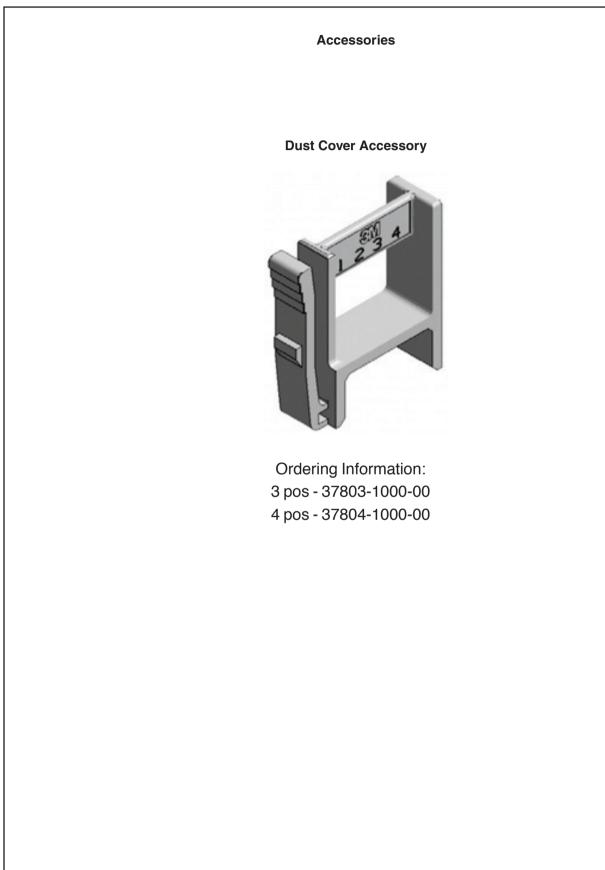
372 Series

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## $3M^{\text{TM}}$ Mini-Clamp Socket

### 2 mm, Surfacemount, Right Angle

372 Series



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# **Regulatory Information Appendix**

### **3M Electronic Solutions Division/Interconnect**

### **EUROPE**

### Appendix E1: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

#### This product is RoHS Compliant 2005/95/EC.

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

### Appendix E2: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

## This product contains lead in the compliant pin area in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/747/EC.

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

## Appendix E3: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment as amended by Commission Decision 2005/618/EC.

#### This product contains lead in the solder tail area in excess of the maximum concentration value allowed.

Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

## Appendix E4: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC, as amended by EU Commission Decision 2005/717/EC, as amended by EU Court of Justice Decision 2008/C 116/04

# This product contains decaBDE in the insulating material in excess of the maximum concentration allowed for finished products subject to EU RoHS that are placed on the EU market after June 30, 2008.

Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

### Appendix E5: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

#### This product contains lead in excess of the maximum concentration value allowed but is compliant by exemption under Item 6 of the Annex to the Directive.

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

### CHINA Appendix C1: China RoHS

Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

## Appendix C2: China RoHS



Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part does contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product's life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the product Warranty stated below.

#### 产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

<u>)</u> 而于有每有古物须或元家的石物及百重 Traine and Content of Hazardous Substances of Elements									
部件名称	有毒有害物质或元素(Hazardous Substances or Elements)								
(Part or Component Name)	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬(Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)			
端子镀层(contact plating)	×	0	0	0	0	0			
O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.) ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)									

## Appendix C3: China RoHS



Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product's life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the product Warranty stated below.

部件名称	有毒有害物质或元素 (Hazardous Substances or Elements)							
(Part or Component Name)	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬(Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)		
合金(Metal alloy)	×	0	0	0	0	0		

产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.) ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)

#### **Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

#### Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.

