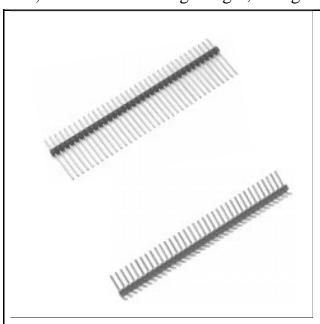
929 Series



- Stackable
- Tin Lead or gold plating available
- Solder stand-offs facilitate production wave soldering
- Board pin retention feature available
- See Regulatory Information Appendix (RIA) for chemical compliance information

Date Modified: August 13, 2007

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## **Physical**

#### Insulation

Material: Glass Filled Polyester (PBT) or High Temperature (PCT)

Flammability: UL 94V-0 Color: Black

Contact

Material: Copper Alloy

**Plating** 

Underplating:  $50 \mu$ " [1.27  $\mu$ m] Nickel Wiping Area and Solder Tails: See ordering information

Marking: None

#### **Electrical**

**Current Rating: 2.5 A** 

Insulation Resistance:  $> 5 \times 10^9 \Omega$  at  $500 \text{ V}_{DC}$ Withstanding Voltage:  $1500 \text{ V}_{RMS}$  at Sea Level

#### **Environmental**

**Temperature Rating:**  $-40^{\circ}$ C to  $+105^{\circ}$ C

Process Rating: 260°C (per J-STD-020C) for PCT parts only

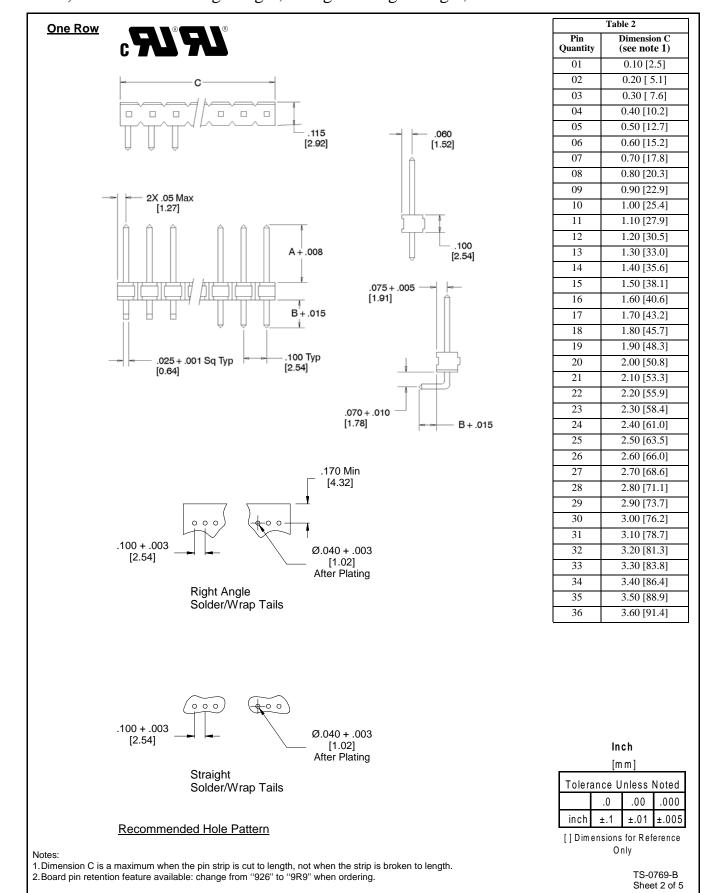
(PBT insulator version), maximum insulator temperature 191°C

(Solder Wave Process Only)

Moisture Sensitivity Level: 1 (per J-STD-020C) for PCT parts only

UL File No.: E68080

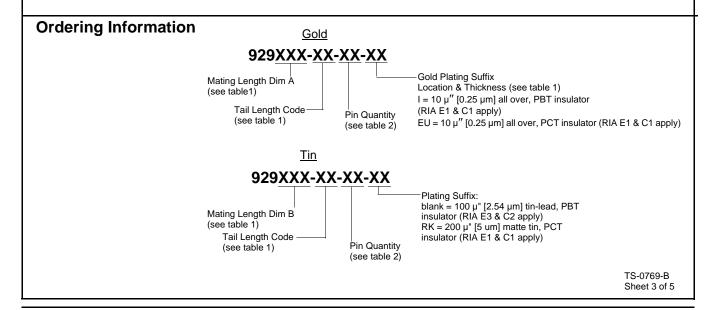
929 Series



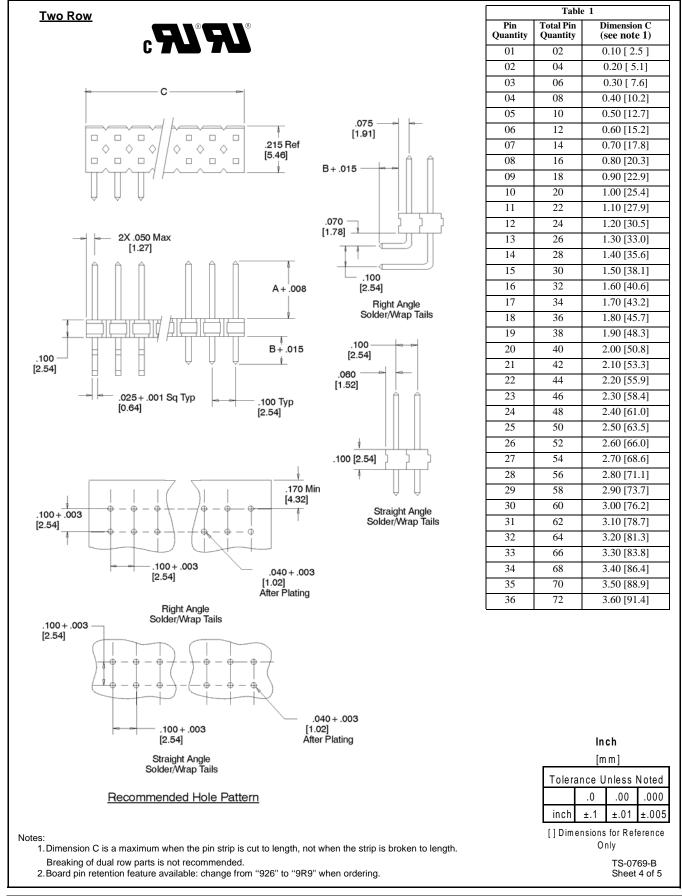
929 Series

#### **One Row**

Table 1								
		Tail	Dimensions					
	3M Part	Length						
Plating	*****		Α	В				
		01		0.110 [2.79]				
		09		0.145 [3.68]				
	000047	02		0.210 [5.33]				
	929647	03	0.235 [5.97]	0.410 [10.41]				
	Straight	04		0.510 [12.95]				
		05		0.610 [15.49]				
		07		0.910 [23.11]				
Gold	929648 Right Angle	01	0.235 [5.97]	0.110 [2.79]				
		01		0.110 [2.79]				
	929705	11	0.318 [8.08]	0.125 [3.18]				
	Straight	09		0.145 [3.68]				
		06		0.710 [18.03]				
		01		0.110 [2.79]				
		02		0.210 [5.33]				
	929834	03	0.235 [5.97]	0.410 [10.41]				
	Straight	04	0.233 [3.97]	0.510 [12.95]				
		05		0.610 [15.49]				
		07		0.910 [23.11]				
Tin	929835 Right Angle	01	0.235 [5.97]	0.110 [2.79]				
	929700 Straight	01	0.318 [8.08]	0.110 [2.79]				
		11		0.125 [3.18]				
	Otraight	06		0.710 [18.03]				
	929730 Right Angle	01	0.318 [8.08]	0.110 [2.79]				



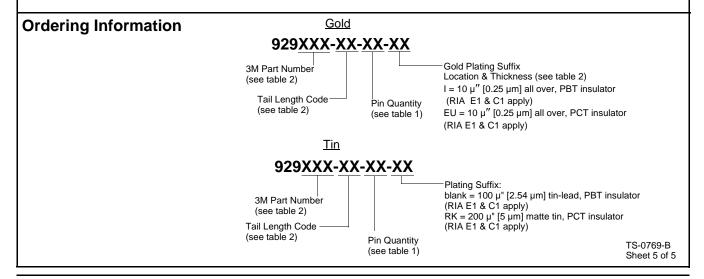
929 Series



929 Series

#### **Two Row**

Plating   Number   Code   A   B	Table 2								
Plating   Number   Code   A   B			Tail	Dimensions					
Gold 929715 Straight 01 0.235 [5.97] 0.110 [2.79] 0.145 [3.68] 0.210 [5.33] 0.410 [10.41] 0.510 [12.95] 0.610 [15.49] 0.125 [3.18] 0.10 [2.79] 0.125 [3.18] 0.10 [2.79] 0.145 [3.68] 0.175 [4.45] 0.10 [2.79] 0.145 [3.68] 0.10 [2.79] 0.145 [3.68] 0.10 [2.79] 0.145 [3.68] 0.10 [2.79] 0.145 [3.68] 0.10 [2.79] 0.145 [3.68] 0.210 [5.33] 0.235 [5.97] 0.145 [3.68] 0.210 [5.33] 0.235 [5.97] 0.145 [3.68] 0.210 [5.33		3M Part	Length						
Gold       09       0.145 [3.68]         929665       08       0.235 [5.97]       0.310 [7.87]         04       03       0.410 [10.41]       0.510 [12.95]         05       0.610 [15.49]       0.110 [2.79]         01       0.318 [8.08]       0.125 [3.18]         0.10 [10.41]       0.710 [18.03]         06       0.235 [5.97]       0.145 [3.68]         929667       01       0.235 [5.97]       0.145 [3.68]         Angle       02       0.235 [5.97]       0.145 [3.68]         929745       01       0.318 [8.08]       0.110 [2.79]         Right       02       0.318 [8.08]       0.110 [2.79]         929836       02       0.235 [5.97]       0.310 [7.87]         0.410 [10.41]       0.510 [12.95]       0.610 [15.49]         04       0.235 [5.97]       0.310 [7.87]         0.410 [10.41]       0.510 [12.95]       0.610 [15.49]         05       0.610 [15.49]       0.110 [2.79]         0.110 [2.79]       0.110 [2.79]       0.125 [3.18]         0.125 [3.18]       0.110 [2.79]       0.110 [2.79]         0.110 [2.79]       0.110 [2.79]       0.125 [3.18]         0.175 [4.45]       0.410 [10.41]       0.175 [4	Plating	Number	Code	Α	В				
Gold         929665 Straight         02 08 08 04 04 05 05 05 06 06 06 06 06 07 0710 [2.79] 0.318 [8.08] 0.235 [5.97]         0.210 [5.33] 0.310 [7.87] 0.410 [10.41] 0.510 [12.95] 0.110 [2.79] 0.125 [3.18] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 0.110 [2.79]           929667 Right Angle         01 02 02 02 02 0.405 [10.29] 0.405 [10.29] 0.405 [10.29] 0.405 [10.29] 0.405 [10.29]           929745 Right         01 02 0.318 [8.08]         0.110 [2.79] 0.405 [10.29]           929836 Straight         02 0.235 [5.97]         0.110 [2.79] 0.110 [2.79] 0.145 [3.68]           02 0.235 [5.97]         0.310 [7.87] 0.405 [10.29]           01 02 0.210 [5.33] 0.210 [5.33]         0.210 [5.33] 0.210 [5.33]           0.210 [5.33] 0.210 [5.33]         0.210 [5.33] 0.210 [5.33]           0.210 [5.33] 0.210 [2.79]         0.310 [7.87] 0.410 [10.41] 0.510 [2.79]           05 05 05 0.610 [15.49]         0.318 [8.08] 0.125 [3.18] 0.145 [3.68]           01 03 06 0710 [18.03]         0.318 [8.08] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03]           929838 Right         01 0.235 [5.97]         0.145 [3.68] 0.110 [2.79]			01		0.110 [2.79]				
Gold Straight 03 0.235 [5.97] 0.310 [7.87] 0.410 [10.41] 0.510 [12.95] 0.610 [15.49] 0.110 [2.79] 0.125 [3.18] 0.710 [18.03] 0.929745 01 0.318 [8.08] 0.110 [2.79] 0.405 [10.29] 0.235 [5.97] 0.405 [10.29] 0.125 [3.68] 0.235 [5.97] 0.145 [3.68] 0.235 [5.97] 0.145 [3.68] 0.235 [5.97] 0.145 [3.68] 0.235 [5.97] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.110 [2.79] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.110 [2.79] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.110 [2.79] 0.125 [3.18] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 0.299838 01 0.235 [5.97] 0.110 [2.79] 0.110 [2			09		0.145 [3.68]				
Gold         08			02	0.235 [5.97]	0.210 [5.33]				
Gold 929715 5traight 01 0.318 [8.08] 0.110 [2.79] 0.125 [3.18] 0.175 [4.45] 0.175 [4.45] 0.175 [4.45] 0.175 [4.45] 0.175 [4.45] 0.175 [4.45] 0.175 [4.45] 0.175 [4.45] 0.170 [18.03] 0.175 [4.45] 0.110 [2.79] 0.110			80		0.310 [7.87]				
Gold 929715   11   0.318 [8.08]   0.110 [2.79]   0.125 [3.18]   0.410 [10.41]   0.710 [18.03]   0.105 [10.29]   0.235 [5.97]   0.145 [3.68]   0.295 [5.97]   0.145 [3.68]   0.295 [5.97]   0.145 [3.68]   0.295 [5.97]   0.145 [3.68]   0.295 [5.97]   0.145 [3.68]   0.295 [5.97]   0.145 [3.68]   0.295 [5.97]   0.145 [3.68]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.210 [2.79]   0.225 [3.18]			03		0.410 [10.41]				
Gold 929715   11			04		0.510 [12.95]				
Gold 929715   11			05		0.610 [15.49]				
Gold         929715 Straight         10 03         0.318 [8.08]         0.175 [4.45] 0.410 [10.41]           929667 Right Angle         01 02 02 02 02 02 02 02 03 03 03 03 03 03 04 02 02 03 03 04 05 05 05 06 07 03 03 03 03 03 03 03 03 03 03 03 03 03			01		0.110 [2.79]				
Straight   10	Gold	020715	11		0.125 [3.18]				
Tin    03	Gold		10	0.318 [8.08]	0.175 [4.45]				
Page 1		Otraignt	03		0.410 [10.41]				
Right Angle     04     0.235 [5.97]     0.145 [3.68]       929745 Right     01 0.318 [8.08]     0.405 [10.29]       929836 Straight     01 09 09 0.145 [3.68]     0.210 [5.33]       03 04 05 05 05 05 05 05 05 05 05 10 06 05 05 06 06 06 06 06 06 06 06 06 06 06 06 06			06						
Right Angle     0.4     0.235 [5.97]     0.145 [3.68]       929745 Right     01 02 0.318 [8.08]     0.110 [2.79]       01 09 09 0.145 [3.68]     0.210 [5.33]       02 02 0.210 [5.33]     0.210 [5.33]       03 04 0.235 [5.97]     0.310 [7.87]       04 0.510 [12.95]     0.610 [15.49]       05 0.610 [15.49]     0.110 [2.79]       01 11 0.279]     0.125 [3.18]       01 0.175 [4.45]     0.410 [10.41]       07 0.10 [18.03]     0.235 [5.97]       929838 01 0.235 [5.97]     0.110 [2.79]       Right     04 0.235 [5.97]     0.145 [3.68]		929667	01	0.235 [5.97]	0.110 [2.79]				
Tin    02		Right	04		0.145 [3.68]				
Right         02         0.318 [8.08]         0.405 [10.29]           929836 Straight         09 02 08 08 08 03 04 04 05 05 05 05 05 06 01 01 01 01 01 01 01 01 01 01 01 01 01		Angle	02		0.405 [10.29]				
Tin  Page 101  929836 Straight  01  09  02  02  03  02  0.235 [5.97]  0.310 [7.87]  0.410 [10.41]  0.510 [12.95]  0.610 [15.49]  0.110 [2.79]  0.110 [2.79]  0.110 [2.79]  0.115 [3.68]  0.145 [3.68]  0.145 [3.68]  0.145 [3.68]  0.175 [4.45]  0.410 [10.41]  0.710 [18.03]  929838  01  Right  04  0.235 [5.97]  0.10 [2.79]  0.115 [3.68]		929745	01	0 240 [0 00]	0.110 [2.79]				
Tin  929836 Straight  03  0.235 [5.97]  0.310 [7.87]  0.410 [10.41]  0.510 [12.95]  0.610 [15.49]  0.115 [3.68]  0.210 [5.33]  0.410 [10.41]  0.510 [12.95]  0.610 [15.49]  0.110 [2.79]  0.125 [3.18]  0.145 [3.68]  0.145 [3.68]  0.175 [4.45]  0.410 [10.41]  0.710 [18.03]  929838  01  0.235 [5.97]  0.145 [3.68]  0.175 [4.45]  0.410 [10.41]  0.710 [18.03]		Right	02	0.316 [6.06]	0.405 [10.29]				
Tin 929836 Straight 08 0.235 [5.97] 0.210 [5.33] 0.310 [7.87] 0.410 [10.41] 0.510 [12.95] 0.610 [15.49] 0.110 [2.79] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 929838 01 0.235 [5.97] 0.145 [3.68] 0.145 [3.68]			01	0.235 [5.97]	0.110 [2.79]				
Tin			09		0.145 [3.68]				
Tin			02		0.210 [5.33]				
Tin  03 04 04 0.510 [12.95] 05 0.610 [15.49] 0.110 [2.79] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 0.235 [5.97] 0.145 [3.68]			08		0.310 [7.87]				
Tin  05 0.610 [15.49] 01 11 929710 09 Straight 10 0.318 [8.08] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 929838 01 Right 04 0.235 [5.97] 0.610 [15.49] 0.110 [2.79]			03		0.410 [10.41]				
Tin  929710 929710 Straight 10 0.318 [8.08] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 929838 01 Right 04 0.235 [5.97] 0.145 [3.68]			04		0.510 [12.95]				
11 929710 09 0.318 [8.08] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 929838 01 0.235 [5.97] 0.145 [3.68]			05		0.610 [15.49]				
929710 09 0.318 [8.08] 0.125 [3.18] 0.145 [3.68] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 0.929838 01 0.195 [3.68] 0.145 [3.68] 0.110 [2.79] 0.145 [3.68]	Tin		01		0.110 [2.79]				
Straight 10 0.318 [8.08] 0.175 [4.45] 0.410 [10.41] 0.710 [18.03] 929838 01 0.235 [5.97] 0.145 [3.68]	1111		11		0.125 [3.18]				
929838 01 0.235 [5.97] 0.145 [3.68]			09	0 318 [8 08]	0.145 [3.68]				
929838 01 0.235 [5.97] 0.145 [3.68]			10	0.510 [0.00]	0.175 [4.45]				
929838 01 0.110 [2.79] Right 04 0.235 [5.97] 0.145 [3.68]			03		0.410 [10.41]				
Right 04 0.235 [5.97] 0.145 [3.68]			06		0.710 [18.03]				
		929838	01		0.110 [2.79]				
Angle 02 0.405 [10.29]		Right	04	0.235 [5.97]	0.145 [3.68]				
		Angle	02		0.405 [10.29]				



## **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.

This product contains decaBDE in the insulating material in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/17/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.

# 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; 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; 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

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.)

#### **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 90 days 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.



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<sup>×:</sup>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 SI/T11363-2006.)