



### Features

- Formerly J.W. Miller® model
- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic surface mounting
- Wide inductance range (1.0 nH to 1000 µH)
- RoHS compliant\*

### Applications

- DC/DC converters
- Power supplies
- General use

## PM1210 & PM1812 Series SMT Chip Inductors

### General Specifications

|                              |                   |
|------------------------------|-------------------|
| Temperature Rise .....       | 20 °C max.        |
| Ambient Temperature .....    | 80 °C max.        |
| Operating Temperature.....   | -40 °C to +100 °C |
| Storage Temperature.....     | -40 °C to +100 °C |
| Resistance to Soldering Heat |                   |
| PM1210.....                  | 260 °C, 5 seconds |
| PM1812.....                  | 245 °C, 5 seconds |

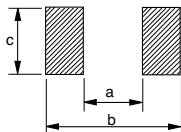
### Materials

|                |             |
|----------------|-------------|
| Ferrite Core   |             |
| PM1210.....    | All         |
| PM1812.....    | All         |
| Coil Type..... | Copper wire |
| Enclosure..... | Epoxy resin |
| Terminal.....  | Sn          |

### Product Dimensions



### Recommended Land Pattern Dimensions



| Model  | a   | b   | c   |
|--------|---|---|---|
| PM1210 | $\frac{1.6 \text{ to } 2.0}{(.063 \text{ to } .079)}$ | $\frac{4.0 \text{ to } 4.6}{(.157 \text{ to } .181)}$ | $\frac{1.9 \text{ to } 2.4}{(.075 \text{ to } .094)}$ |
| PM1812 | $\frac{2.4 \text{ to } 2.6}{(.094 \text{ to } .102)}$ | $\frac{5.5 \text{ to } 6.0}{(.217 \text{ to } .236)}$ | $\frac{2.0 \text{ to } 3.0}{(.079 \text{ to } .118)}$ |

DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

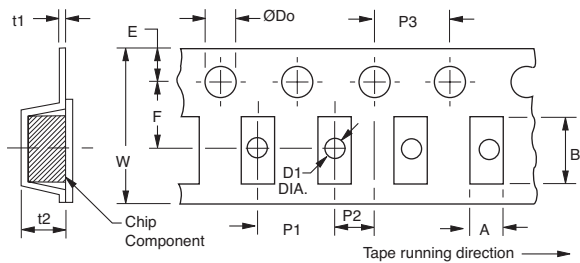
\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

# PM1210 & PM1812 Series SMT Chip Inductors

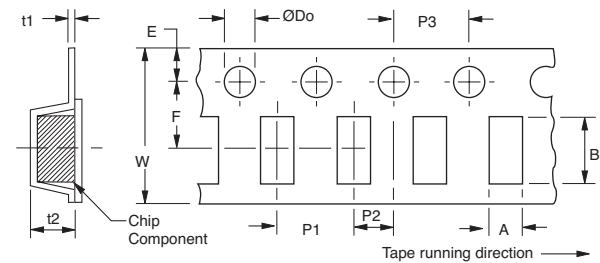
**BOURNS®**

## Packaging Specifications

### PM1210 Series



### PM1812 Series



| Model  | A              | B              | W               | F              | E              | P1             | P2             | P3             | øD0            | øD1 | t1             | t2             |
|--------|----------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|----------------|----------------|
| PM1210 | 2.80<br>(.110) | 3.60<br>(.142) | 8.00<br>(.315)  | 3.50<br>(.138) | 1.75<br>(.069) | 4.00<br>(.157) | 2.00<br>(.079) | 4.00<br>(.157) | 1.50<br>(.059) | —   | 0.25<br>(.010) | 2.40<br>(.094) |
| PM1812 | 3.60<br>(.142) | 4.90<br>(.193) | 12.00<br>(.472) | 5.50<br>(.217) | 1.75<br>(.069) | 8.00<br>(.315) | 2.00<br>(.079) | 4.00<br>(.157) | 1.50<br>(.059) | —   | 0.30<br>(.012) | 3.50<br>(.138) |

## Reel Dimensions

| Model  | A              | B       | C            | D            | E           | W            |
|--------|----------------|---------|--------------|--------------|-------------|--------------|
| PM1210 | 178<br>(7.008) | 60 min. | 13<br>(.512) | 21<br>(.827) | 2<br>(.079) | 9<br>(.354)  |
| PM1812 | 178<br>(7.008) | 60 min. | 13<br>(.512) | 21<br>(.827) | 2<br>(.079) | 13<br>(.512) |



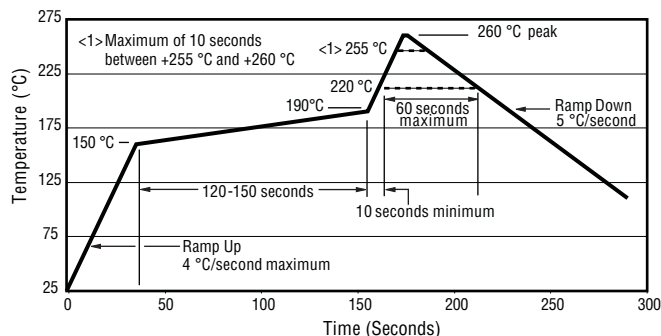
## Packaging

| Model  | Quantity  | Weight |
|--------|-----------|--------|
| PM1210 | 2000 pcs. | 190 g  |
| PM1812 | 500 pcs.  | 100 g  |

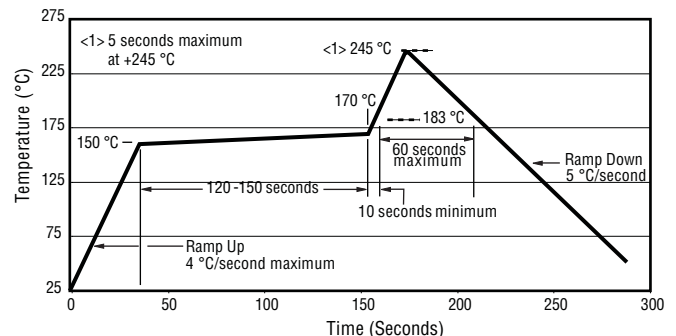
DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Soldering Profiles

### PM1210 Series



### PM1812 Series



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# PM1210 & PM1812 Series SMT Chip Inductors

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## PM1210 Series

| RoHS Compliant<br>1210 Size<br>Part Number | Inductance<br>$\mu$ H | Tolerance | Q<br>min. | Test Frequency<br>MHz | SRF min.<br>MHz | RDC<br>ohms max. | IDC<br>mA max. |
|--|-----------------------|-----------|-----------|-----------------------|-----------------|------------------|----------------|
| PM1210-1R0J-RC                             | 1.0                   | $\pm 5\%$ | 30        | 7.96                  | 115             | 0.69             | 230            |
| PM1210-1R2J-RC                             | 1.2                   | $\pm 5\%$ | 30        | 7.96                  | 100             | 0.75             | 215            |
| PM1210-1R5J-RC                             | 1.5                   | $\pm 5\%$ | 30        | 7.96                  | 90              | 0.75             | 210            |
| PM1210-1R8J-RC                             | 1.8                   | $\pm 5\%$ | 30        | 7.96                  | 85              | 0.82             | 200            |
| PM1210-2R2J-RC                             | 2.2                   | $\pm 5\%$ | 30        | 7.96                  | 80              | 0.95             | 190            |
| PM1210-2R7J-RC                             | 2.7                   | $\pm 5\%$ | 30        | 7.96                  | 75              | 1.1              | 180            |
| PM1210-3R3J-RC                             | 3.3                   | $\pm 5\%$ | 30        | 7.96                  | 65              | 1.2              | 180            |
| PM1210-3R9J-RC                             | 3.9                   | $\pm 5\%$ | 30        | 7.96                  | 60              | 1.3              | 175            |
| PM1210-4R7J-RC                             | 4.7                   | $\pm 5\%$ | 30        | 7.96                  | 55              | 1.5              | 165            |
| PM1210-5R6J-RC                             | 5.6                   | $\pm 5\%$ | 30        | 7.96                  | 50              | 1.6              | 160            |
| PM1210-6R8J-RC                             | 6.8                   | $\pm 5\%$ | 30        | 7.96                  | 45              | 1.8              | 150            |
| PM1210-8R2J-RC                             | 8.2                   | $\pm 5\%$ | 30        | 7.96                  | 40              | 2.0              | 140            |
| PM1210-100J-RC                             | 10                    | $\pm 5\%$ | 30        | 2.52                  | 36              | 2.1              | 140            |
| PM1210-120J-RC                             | 12                    | $\pm 5\%$ | 30        | 2.52                  | 33              | 2.5              | 125            |
| PM1210-150J-RC                             | 15                    | $\pm 5\%$ | 30        | 2.52                  | 30              | 2.8              | 120            |
| PM1210-180J-RC                             | 18                    | $\pm 5\%$ | 30        | 2.52                  | 27              | 3.3              | 110            |
| PM1210-220J-RC                             | 22                    | $\pm 5\%$ | 30        | 2.52                  | 25              | 3.7              | 105            |
| PM1210-270J-RC                             | 27                    | $\pm 5\%$ | 30        | 2.52                  | 22              | 5.0              | 90             |
| PM1210-330J-RC                             | 33                    | $\pm 5\%$ | 30        | 2.52                  | 20              | 5.6              | 85             |
| PM1210-390J-RC                             | 39                    | $\pm 5\%$ | 30        | 2.52                  | 20              | 6.4              | 80             |
| PM1210-470J-RC                             | 47                    | $\pm 5\%$ | 30        | 2.52                  | 15              | 7.0              | 75             |
| PM1210-560J-RC                             | 56                    | $\pm 5\%$ | 30        | 2.52                  | 15              | 8.0              | 70             |
| PM1210-680J-RC                             | 68                    | $\pm 5\%$ | 30        | 2.52                  | 15              | 9.0              | 65             |
| PM1210-820J-RC                             | 82                    | $\pm 5\%$ | 30        | 2.52                  | 11              | 10               | 60             |
| PM1210-101J-RC                             | 100                   | $\pm 5\%$ | 20        | 0.796                 | 10              | 10               | 60             |
| PM1210-121J-RC                             | 120                   | $\pm 5\%$ | 20        | 0.796                 | 10              | 11               | 55             |
| PM1210-151J-RC                             | 150                   | $\pm 5\%$ | 20        | 0.796                 | 8               | 15               | 50             |
| PM1210-181J-RC                             | 180                   | $\pm 5\%$ | 20        | 0.796                 | 7               | 17               | 50             |
| PM1210-221J-RC                             | 220                   | $\pm 5\%$ | 20        | 0.796                 | 7               | 21               | 45             |

# PM1210 & PM1812 Series SMT Chip Inductors

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## PM1812 Series

| RoHS Compliant<br>1812 Size<br>Part Number | Inductance<br>$\mu$ H | Tolerance | Q<br>min. | Test Freq.<br>MHz | SRF min.<br>MHz | RDC<br>ohms max. | IDC<br>mA max. |
|--|-----------------------|-----------|-----------|-------------------|-----------------|------------------|----------------|
| PM1812-R10K-RC                             | 0.10                  | ±10 %     | 35        | 25.2              | 300             | 0.18             | 800            |
| PM1812-R12K-RC                             | 0.12                  | ±10 %     | 35        | 25.2              | 280             | 0.2              | 770            |
| PM1812-R15K-RC                             | 0.15                  | ±10 %     | 35        | 25.2              | 250             | 0.22             | 730            |
| PM1812-R18K-RC                             | 0.18                  | ±10 %     | 35        | 25.2              | 220             | 0.24             | 700            |
| PM1812-R22K-RC                             | 0.22                  | ±10 %     | 40        | 25.2              | 200             | 0.25             | 665            |
| PM1812-R27K-RC                             | 0.27                  | ±10 %     | 40        | 25.2              | 180             | 0.26             | 635            |
| PM1812-R33K-RC                             | 0.33                  | ±10 %     | 40        | 25.2              | 165             | 0.28             | 605            |
| PM1812-R39K-RC                             | 0.39                  | ±10 %     | 40        | 25.2              | 150             | 0.30             | 575            |
| PM1812-R47K-RC                             | 0.47                  | ±10 %     | 40        | 25.2              | 145             | 0.32             | 545            |
| PM1812-R56K-RC                             | 0.56                  | ±10 %     | 40        | 25.2              | 140             | 0.36             | 520            |
| PM1812-R68K-RC                             | 0.68                  | ±10 %     | 40        | 25.2              | 135             | 0.40             | 500            |
| PM1812-R82K-RC                             | 0.82                  | ±10 %     | 40        | 25.2              | 130             | 0.45             | 475            |
| PM1812-1R0J-RC                             | 1.0                   | ±5 %      | 50        | 7.96              | 100             | 0.50             | 450            |
| PM1812-1R2J-RC                             | 1.2                   | ±5 %      | 50        | 7.96              | 80              | 0.55             | 430            |
| PM1812-1R5J-RC                             | 1.5                   | ±5 %      | 50        | 7.96              | 70              | 0.60             | 410            |
| PM1812-1R8J-RC                             | 1.8                   | ±5 %      | 50        | 7.96              | 60              | 0.65             | 390            |
| PM1812-2R2J-RC                             | 2.2                   | ±5 %      | 50        | 7.96              | 55              | 0.70             | 380            |
| PM1812-2R7J-RC                             | 2.7                   | ±5 %      | 50        | 7.96              | 50              | 0.75             | 370            |
| PM1812-3R3J-RC                             | 3.3                   | ±5 %      | 50        | 7.96              | 45              | 0.80             | 355            |
| PM1812-3R9J-RC                             | 3.9                   | ±5 %      | 50        | 7.96              | 40              | 0.90             | 330            |
| PM1812-4R7J-RC                             | 4.7                   | ±5 %      | 50        | 7.96              | 35              | 1.00             | 315            |
| PM1812-5R6J-RC                             | 5.6                   | ±5 %      | 50        | 7.96              | 33              | 1.10             | 300            |
| PM1812-6R8J-RC                             | 6.8                   | ±5 %      | 50        | 7.96              | 27              | 1.2              | 285            |
| PM1812-8R2J-RC                             | 8.2                   | ±5 %      | 50        | 7.96              | 25              | 1.4              | 270            |
| PM1812-100J-RC                             | 10                    | ±5 %      | 50        | 2.52              | 20              | 1.6              | 250            |
| PM1812-120J-RC                             | 12                    | ±5 %      | 50        | 2.52              | 18              | 2                | 225            |
| PM1812-150J-RC                             | 15                    | ±5 %      | 50        | 2.52              | 17              | 2.5              | 200            |
| PM1812-180J-RC                             | 18                    | ±5 %      | 50        | 2.52              | 15              | 2.8              | 190            |
| PM1812-220J-RC                             | 22                    | ±5 %      | 50        | 2.52              | 13              | 3.2              | 180            |
| PM1812-270J-RC                             | 27                    | ±5 %      | 50        | 2.52              | 12              | 3.6              | 170            |
| PM1812-330J-RC                             | 33                    | ±5 %      | 50        | 2.52              | 11              | 4                | 160            |
| PM1812-390J-RC                             | 39                    | ±5 %      | 50        | 2.52              | 10              | 4.5              | 150            |
| PM1812-470J-RC                             | 47                    | ±5 %      | 50        | 2.52              | 10              | 5                | 140            |
| PM1812-560J-RC                             | 56                    | ±5 %      | 50        | 2.52              | 9               | 5.5              | 135            |
| PM1812-680J-RC                             | 68                    | ±5 %      | 50        | 2.52              | 9               | 6                | 130            |
| PM1812-820J-RC                             | 82                    | ±5 %      | 50        | 2.52              | 8               | 7                | 120            |
| PM1812-101J-RC                             | 100                   | ±5 %      | 40        | 2.52              | 8               | 8                | 110            |
| PM1812-121J-RC                             | 120                   | ±5 %      | 40        | 0.796             | 6               | 8                | 110            |
| PM1812-151J-RC                             | 150                   | ±5 %      | 40        | 0.796             | 5               | 9                | 105            |
| PM1812-181J-RC                             | 180                   | ±5 %      | 40        | 0.796             | 5               | 9.5              | 102            |
| PM1812-221J-RC                             | 220                   | ±5 %      | 40        | 0.796             | 4               | 10               | 100            |
| PM1812-271J-RC                             | 270                   | ±5 %      | 40        | 0.796             | 4               | 12               | 92             |
| PM1812-331J-RC                             | 330                   | ±5 %      | 40        | 0.796             | 3.5             | 14               | 85             |
| PM1812-391J-RC                             | 390                   | ±5 %      | 40        | 0.796             | 3               | 18               | 80             |
| PM1812-471J-RC                             | 470                   | ±5 %      | 40        | 0.796             | 3               | 26               | 62             |
| PM1812-561J-RC                             | 560                   | ±5 %      | 30        | 0.796             | 3               | 30               | 50             |
| PM1812-681J-RC                             | 680                   | ±5 %      | 30        | 0.796             | 3               | 30               | 50             |
| PM1812-821J-RC                             | 820                   | ±5 %      | 30        | 0.796             | 2.5             | 35               | 30             |
| PM1812-102J-RC                             | 1000                  | ±5 %      | 30        | 0.252             | 2.5             | 40               | 30             |

REV. 07/10

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
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- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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