



Features

- Formerly J.W. Miller® model
- Current rating up to 25.4 A
- Toroidal core
- RoHS compliant*

Applications

- Input/output of DC/DC converters
- Industrial electronics
- Power supplies for:
 - Portable communications equipment
 - Camcorders
 - LCD TVs

PM2120 Series - High Current SMD Power Inductors

Electrical Specifications

| Bourns Part No. | Inductance 1 kHz | | DCR Max. (mΩ) | I _{dc} (A) | Dim. A Max. mm/(in.) |
|-----------------|------------------|----------|---------------|---------------------|----------------------|
| | (μH) | Tol. (%) | | | |
| PM2120-1R0M-RC | 1.0 | ±20 | 2 | 25.4 | 20.83 / (0.82) |
| PM2120-1R2M-RC | 1.2 | ±20 | 2 | 25.4 | 20.83 / (0.82) |
| PM2120-1R5M-RC | 1.5 | ±20 | 3 | 22.0 | 20.83 / (0.82) |
| PM2120-1R8M-RC | 1.8 | ±20 | 3 | 22.0 | 20.83 / (0.82) |
| PM2120-2R2M-RC | 2.2 | ±20 | 3 | 19.7 | 20.83 / (0.82) |
| PM2120-2R7M-RC | 2.7 | ±20 | 3 | 19.7 | 20.83 / (0.82) |
| PM2120-3R3M-RC | 3.3 | ±20 | 4 | 18.0 | 20.83 / (0.82) |
| PM2120-3R9M-RC | 3.9 | ±20 | 4 | 18.0 | 20.83 / (0.82) |
| PM2120-4R7M-RC | 4.7 | ±20 | 5 | 16.6 | 20.83 / (0.82) |
| PM2120-5R6M-RC | 5.6 | ±20 | 5 | 15.6 | 20.83 / (0.82) |
| PM2120-6R8M-RC | 6.8 | ±20 | 6 | 14.7 | 20.83 / (0.82) |
| PM2120-8R2M-RC | 8.2 | ±20 | 6 | 14.7 | 20.83 / (0.82) |
| PM2120-100K-RC | 10 | ±10 | 7 | 13.9 | 20.83 / (0.82) |
| PM2120-120K-RC | 12 | ±10 | 8 | 12.7 | 20.83 / (0.82) |
| PM2120-150K-RC | 15 | ±10 | 9 | 12.2 | 20.83 / (0.82) |
| PM2120-180K-RC | 18 | ±10 | 9 | 11.8 | 20.83 / (0.82) |
| PM2120-220K-RC | 22 | ±10 | 11 | 11.0 | 20.83 / (0.82) |
| PM2120-270K-RC | 27 | ±10 | 12 | 10.4 | 20.83 / (0.82) |
| PM2120-330K-RC | 33 | ±10 | 13 | 10.1 | 20.83 / (0.82) |
| PM2120-390K-RC | 39 | ±10 | 14 | 9.6 | 20.83 / (0.82) |
| PM2120-470K-RC | 47 | ±10 | 19 | 8.2 | 20.07 / (0.79) |
| PM2120-560K-RC | 56 | ±10 | 21 | 7.9 | 20.07 / (0.79) |
| PM2120-680K-RC | 68 | ±10 | 29 | 6.7 | 19.56 / (0.77) |
| PM2120-820K-RC | 82 | ±10 | 32 | 6.4 | 22.10 / (0.87) |
| PM2120-101K-RC | 100 | ±10 | 35 | 6.1 | 22.10 / (0.87) |
| PM2120-121K-RC | 120 | ±10 | 39 | 5.8 | 22.10 / (0.87) |
| PM2120-151K-RC | 150 | ±10 | 43 | 5.5 | 22.10 / (0.87) |
| PM2120-181K-RC | 180 | ±10 | 47 | 5.3 | 21.08 / (0.83) |
| PM2120-221K-RC | 220 | ±10 | 52 | 5.0 | 21.08 / (0.83) |
| PM2120-271K-RC | 270 | ±10 | 72 | 4.2 | 20.32 / (0.80) |
| PM2120-331K-RC | 330 | ±10 | 100 | 3.6 | 19.81 / (0.78) |
| PM2120-391K-RC | 390 | ±10 | 108 | 3.5 | 19.81 / (0.78) |
| PM2120-471K-RC | 470 | ±10 | 119 | 3.3 | 21.59 / (0.85) |
| PM2120-561K-RC | 560 | ±10 | 130 | 3.2 | 21.59 / (0.85) |
| PM2120-681K-RC | 680 | ±10 | 142 | 3.0 | 21.59 / (0.85) |
| PM2120-821K-RC | 820 | ±10 | 157 | 2.9 | 21.59 / (0.85) |
| PM2120-102K-RC | 1000 | ±10 | 215 | 2.5 | 20.83 / (0.82) |

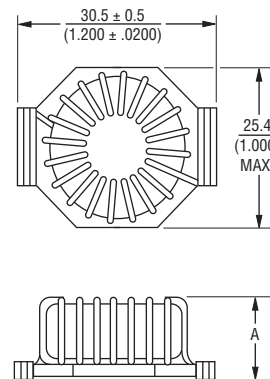
General Specifications

Test Voltage 0.1 V
 Operating Temperature -55 °C to +105 °C
 (Temperature rise included)
 Storage Temperature -55 °C to +105 °C
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

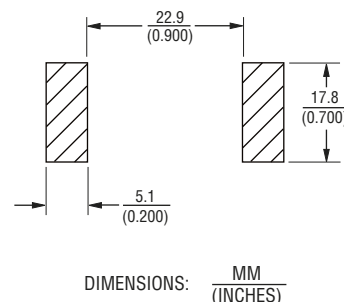
Materials

Core Iron
 Wire Enameled copper
 Adhesive Epoxy resin
 Terminal Sn/Ag/Cu
 Rated Current See "Inductance vs. Current" table
 Temperature Rise 30 °C typical at I_{dc}
 Packaging 77 pcs. per box

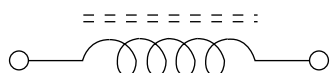
Product Dimensions



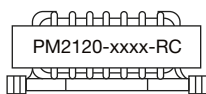
Recommended Pad Layout



Electrical Schematic



Typical Part Marking



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
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PM2120 Series - High Current SMD Power Inductors

BOURNS®

Inductance vs. Current

| L (μH) | Idc (A) to decrease L by 10 % | Idc (A) to decrease L by 20 % | Idc (A) to decrease L by 30 % | Idc (A) to decrease L by 40 % | Idc (A) to decrease L by 50 % |
|--------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 | 15.3 | 24.5 | 34.4 | 45.9 | 61.3 |
| 1.2 | 17.4 | 27.9 | 39.2 | 52.2 | 69.7 |
| 1.5 | 15.8 | 25.3 | 35.6 | 47.4 | 63.3 |
| 1.8 | 14.6 | 23.4 | 32.9 | 43.8 | 58.5 |
| 2.2 | 13.1 | 21.0 | 29.5 | 39.3 | 52.5 |
| 2.7 | 11.7 | 18.7 | 26.3 | 35.1 | 46.9 |
| 3.3 | 15.1 | 24.2 | 34.0 | 45.3 | 60.5 |
| 3.9 | 9.70 | 15.5 | 21.8 | 29.1 | 38.9 |
| 4.7 | 8.90 | 14.3 | 20.0 | 26.7 | 35.7 |
| 5.6 | 8.10 | 13.0 | 18.2 | 24.3 | 32.4 |
| 6.8 | 7.40 | 11.9 | 16.7 | 22.2 | 29.6 |
| 8.2 | 6.70 | 10.7 | 15.1 | 20.1 | 26.8 |
| 10 | 6.10 | 9.77 | 13.7 | 18.3 | 24.4 |
| 12 | 5.60 | 8.97 | 12.6 | 16.8 | 22.4 |
| 15 | 4.90 | 7.85 | 11.0 | 14.7 | 19.6 |
| 18 | 4.60 | 7.37 | 10.4 | 13.8 | 18.4 |
| 22 | 4.10 | 6.57 | 9.23 | 12.3 | 16.4 |
| 27 | 3.70 | 5.93 | 8.33 | 11.1 | 14.8 |
| 33 | 3.35 | 5.37 | 7.54 | 10.1 | 13.4 |
| 39 | 3.10 | 4.97 | 6.98 | 9.30 | 12.4 |
| 47 | 2.80 | 4.49 | 6.30 | 8.40 | 11.2 |
| 56 | 2.55 | 4.09 | 5.74 | 7.65 | 10.2 |
| 68 | 2.35 | 3.76 | 5.29 | 7.05 | 9.41 |
| 82 | 2.15 | 3.44 | 4.84 | 6.45 | 8.61 |
| 100 | 1.92 | 3.08 | 4.32 | 5.76 | 7.69 |
| 120 | 1.75 | 2.80 | 3.94 | 5.25 | 7.01 |
| 150 | 1.58 | 2.53 | 3.56 | 4.74 | 6.33 |
| 180 | 1.43 | 2.29 | 3.22 | 4.29 | 5.73 |
| 220 | 1.30 | 2.08 | 2.93 | 3.90 | 5.21 |
| 270 | 1.18 | 1.89 | 2.66 | 3.54 | 4.73 |
| 330 | 1.11 | 1.78 | 2.50 | 3.33 | 4.45 |
| 390 | 0.97 | 1.55 | 2.18 | 2.91 | 3.89 |
| 470 | 0.89 | 1.43 | 2.00 | 2.67 | 3.57 |
| 560 | 0.81 | 1.30 | 1.82 | 2.43 | 3.24 |
| 680 | 0.74 | 1.19 | 1.67 | 2.22 | 2.96 |
| 820 | 0.67 | 1.07 | 1.51 | 2.01 | 2.68 |
| 1000 | 0.61 | 0.98 | 1.37 | 1.83 | 2.44 |

REV. 03/18

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Users should verify actual device performance in their specific applications.

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