



## 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
  - Car radios

# PM2120 Series - High Current SMD Power Inductors

### Electrical Specifications

Bourns Part No.	Inductance 1 kHz		Test Frequency (MHz)	DCR Max. (mΩ)	Idc (A)	Dim. A Max. mm/(in.)
	(μH)	Tol. (%)				
PM2120-1R0M-RC	1.0	±20	7.96	2	25.4	20.83 / (0.82)
PM2120-1R2M-RC	1.2	±20	7.96	2	25.4	20.83 / (0.82)
PM2120-1R5M-RC	1.5	±20	7.96	3	22.0	20.83 / (0.82)
PM2120-1R8M-RC	1.8	±20	7.96	3	22.0	20.83 / (0.82)
PM2120-2R2M-RC	2.2	±20	7.96	3	19.7	20.83 / (0.82)
PM2120-2R7M-RC	2.7	±20	7.96	3	19.7	20.83 / (0.82)
PM2120-3R3M-RC	3.3	±20	7.96	4	18.0	20.83 / (0.82)
PM2120-3R9M-RC	3.9	±20	7.96	4	18.0	20.83 / (0.82)
PM2120-4R7M-RC	4.7	±20	7.96	5	16.6	20.83 / (0.82)
PM2120-5R6M-RC	5.6	±20	7.96	5	15.6	20.83 / (0.82)
PM2120-6R8M-RC	6.8	±20	7.96	6	14.7	20.83 / (0.82)
PM2120-8R2M-RC	8.2	±20	7.96	6	14.7	20.83 / (0.82)
PM2120-100K-RC	10	±10	2.52	7	13.9	20.83 / (0.82)
PM2120-120K-RC	12	±10	2.52	8	12.7	20.83 / (0.82)
PM2120-150K-RC	15	±10	2.52	9	12.2	20.83 / (0.82)
PM2120-180K-RC	18	±10	2.52	9	11.8	20.83 / (0.82)
PM2120-220K-RC	22	±10	2.52	11	11.0	20.83 / (0.82)
PM2120-270K-RC	27	±10	2.52	12	10.4	20.83 / (0.82)
PM2120-330K-RC	33	±10	2.52	13	10.1	20.83 / (0.82)
PM2120-390K-RC	39	±10	2.52	14	9.6	20.83 / (0.82)
PM2120-470K-RC	47	±10	2.52	19	8.2	20.07 / (0.79)
PM2120-560K-RC	56	±10	2.52	21	7.9	20.07 / (0.79)
PM2120-680K-RC	68	±10	2.52	29	6.7	19.56 / (0.77)
PM2120-820K-RC	82	±10	2.52	32	6.4	20.10 / (0.87)
PM2120-101K-RC	100	±10	0.796	35	6.1	20.10 / (0.87)
PM2120-121K-RC	120	±10	0.796	39	5.8	20.10 / (0.87)
PM2120-151K-RC	150	±10	0.796	43	5.5	20.10 / (0.87)
PM2120-181K-RC	180	±10	0.796	47	5.3	21.08 / (0.83)
PM2120-221K-RC	220	±10	0.796	52	5.0	21.08 / (0.83)
PM2120-271K-RC	270	±10	0.796	72	4.2	20.32 / (0.80)
PM2120-331K-RC	330	±10	0.796	100	3.6	19.81 / (0.78)
PM2120-391K-RC	390	±10	0.796	108	3.5	19.81 / (0.78)
PM2120-471K-RC	470	±10	0.796	119	3.3	21.59 / (0.85)
PM2120-561K-RC	560	±10	0.796	130	3.2	21.59 / (0.85)
PM2120-681K-RC	680	±10	0.796	142	3.0	21.59 / (0.85)
PM2120-821K-RC	820	±10	0.796	157	2.9	21.59 / (0.85)
PM2120-102K-RC	1000	±10	0.252	215	2.5	20.83 / (0.82)

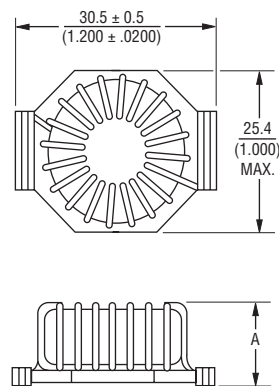
### General Specifications

Test Voltage.....0.1 V  
 Reflow Soldering .....245 °C; 5 seconds  
 Operating Temperature ..-55 °C to +105 °C  
 (Temperature rise included)  
 Storage Temperature..-55 °C to +105 °C  
 Resistance to Soldering Heat  
 .....260 °C, 10 sec. max.

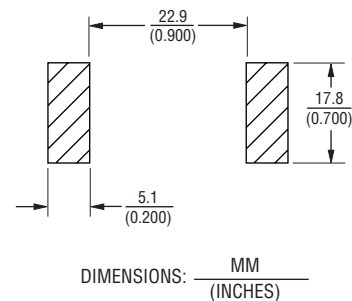
### Materials

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 Idc  
 Packaging .....77 pcs. per box

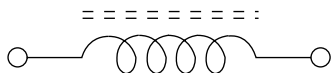
### Product Dimensions



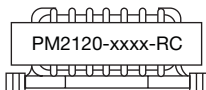
### Recommended Layout



### Electrical Schematic



### Typical Part Marking



\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

## 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