



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 (0.1 nH to 1000 µH)
- RoHS compliant*

Applications

- DC/DC converters
- Power supplies
- General use

PM1812 Series SMT Chip Inductors

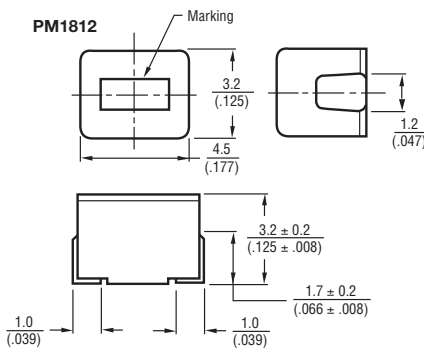
General Specifications

Temperature Rise	20 °C max.
Ambient Temperature	100 °C max.
Operating Temperature.....	-40 °C to +125 °C
Storage Temperature.....	-40 °C to +125 °C
Resistance to Soldering Heat.....	245 °C, 5 seconds

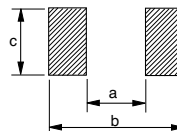
Materials

Core.....	Ferrite
Coil Type.....	Copper wire
Enclosure.....	Epoxy resin
Terminal	Sn

Product Dimensions



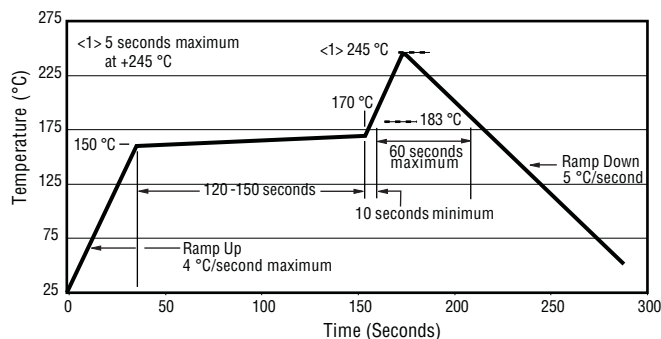
Recommended Land Pattern Dimensions



Model	a	b	c
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: $\frac{\text{MM}}{(\text{INCHES})}$

Soldering Profiles



*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.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

PM1812 Series SMT Chip Inductors

BOURNS®

Electrical Characteristics

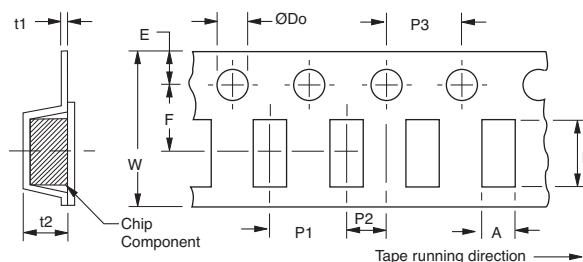
RoHS Compliant 1812 Size Part Number	Inductance μ H	Tolerance	Q min.	Test Freq. MHz	SRF min. MHz	RDC ohms max.	IDC mA max.
PM1812-R10K-RC	0.10	±10 %	35	25.2	300	0.18	800
PM1812-R12K-RC	0.12	±10 %	35	25.2	280	0.2	770
PM1812-R15K-RC	0.15	±10 %	35	25.2	250	0.22	730
PM1812-R18K-RC	0.18	±10 %	35	25.2	220	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

Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.

PM1812 Series SMT Chip Inductors

BOURNS®

Packaging Specifications



Model	A	B	W	F	E	P1	P2	P3	ØD0	ØD1	t1	t2
PM1812	$\frac{3.60}{(.142)}$	$\frac{4.90}{(.193)}$	$\frac{12.00}{(.472)}$	$\frac{5.50}{(.217)}$	$\frac{1.75}{(.069)}$	$\frac{8.00}{(.315)}$	$\frac{2.00}{(.079)}$	$\frac{4.00}{(.157)}$	$\frac{1.50}{(.059)}$	—	$\frac{0.30}{(.012)}$	$\frac{3.50}{(.138)}$

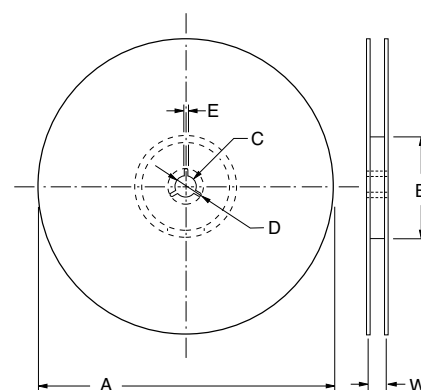
Reel Dimensions

Model	A	B	C	D	E	W
PM1812	$\frac{178}{(7.008)}$	60 min.	$\frac{13}{(.512)}$	$\frac{21}{(.827)}$	$\frac{2}{(.079)}$	$\frac{13}{(.512)}$

Packaging

Model	Quantity	Weight
PM1812	500 pcs.	100 g

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



REV. 09/14

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

[PM1812-100J](#) [PM1812-101J](#) [PM1812-102J](#) [PM1812-120J](#) [PM1812-121J](#) [PM1812-150J](#) [PM1812-151J](#) [PM1812-180J](#) [PM1812-181J](#) [PM1812-1R0J](#) [PM1812-1R2J](#) [PM1812-1R5J](#) [PM1812-1R8J](#) [PM1812-220J](#) [PM1812-221J](#) [PM1812-270J](#) [PM1812-271J](#) [PM1812-2R2J](#) [PM1812-2R7J](#) [PM1812-330J](#) [PM1812-331J](#) [PM1812-390J](#) [PM1812-391J](#) [PM1812-3R3J](#) [PM1812-3R9J](#) [PM1812-470J](#) [PM1812-471J](#) [PM1812-4R7J](#) [PM1812-560J](#) [PM1812-561J](#) [PM1812-5R6J](#) [PM1812-680J](#) [PM1812-681J](#) [PM1812-6R8J](#) [PM1812-820J](#) [PM1812-821J](#) [PM1812-8R2J](#) [PM1812-R10K](#) [PM1812-R12K](#) [PM1812-R15K](#) [PM1812-R18K](#) [PM1812-R22K](#) [PM1812-R27K](#) [PM1812-R33K](#) [PM1812-R39K](#) [PM1812-R47K](#) [PM1812-R56K](#) [PM1812-R68K](#) [PM1812-R82K](#) [PM1812-150J-RC](#) [PM1812-R27K-RC](#) [PM1812-1R5J-RC](#) [PM1812-R15K-RC](#) [PM1812-181J-RC](#) [PM1812-681J-RC](#) [PM1812-1R0J-RC](#) [PM1812-820J-RC](#) [PM1812-101J-RC](#) [PM1812-R10K-RC](#) [PM1812-100J-RC](#) [PM1812-R56K-RC](#) [PM1812-5R6J-RC](#) [PM1812-331J-RC](#) [PM1812-R12K-RC](#) [PM1812-471J-RC](#) [PM1812-271J-RC](#) [PM1812-R39K-RC](#) [PM1812-680J-RC](#) [PM1812-180J-RC](#) [PM1812-6R8J-RC](#) [PM1812-1R8J-RC](#) [PM1812-330J-RC](#) [PM1812-2R7J-RC](#) [PM1812-4R7J-RC](#) [PM1812-R68K-RC](#) [PM1812-R22K-RC](#) [PM1812-561J-RC](#) [PM1812-270J-RC](#) [PM1812-470J-RC](#) [PM1812-R47K-RC](#) [PM1812-R33K-RC](#) [PM1812-121J-RC](#) [PM1812-1R2J-RC](#) [PM1812-221J-RC](#) [PM1812-2R2J-RC](#) [PM1812-391J-RC](#) [PM1812-220J-RC](#) [PM1812-3R3J-RC](#) [PM1812-120J-RC](#) [PM1812-3R9J-RC](#) [PM1812-821J-RC](#) [PM1812-8R2J-RC](#) [PM1812-102J-RC](#) [PM1812-560J-RC](#) [PM1812-151J-RC](#) [PM1812-R82K-RC](#) [PM1812-390J-RC](#) [PM1812-R18K-RC](#)