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*

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

PM1812 Series SMT Chip Inductors

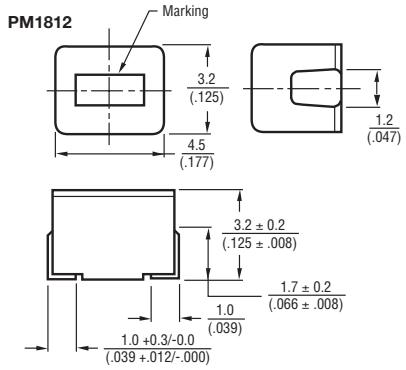
General Specifications

Temperature Rise ..... 20 ˚C max.
Ambient Temperature ..... 100 ˚C max.
Operating Temperature ..... -40 °C to +125 °C
Storage Temperature ..... -40 °C to +125 °C

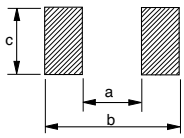
Materials

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

Product Dimensions



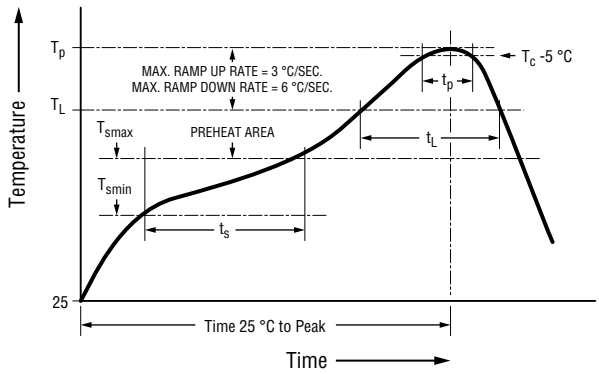
Recommended Land Pattern Dimensions



Model	a	b	c
PM1812	2.4 to 2.6 (.094 to .102)	5.5 to 6.0 (.217 to .236)	2.0 to 3.0 (.079 to .118)

DIMENSIONS: MM (INCHES)

Soldering Profile



REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Classification Temperature (T_c)	250 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant.
See www.P65Warnings.ca.gov

*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.
Users should verify actual device performance in their specific applications.
The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Applications

- DC/DC converters
- Power supplies
- General use

PM1812 Series SMT Chip Inductors

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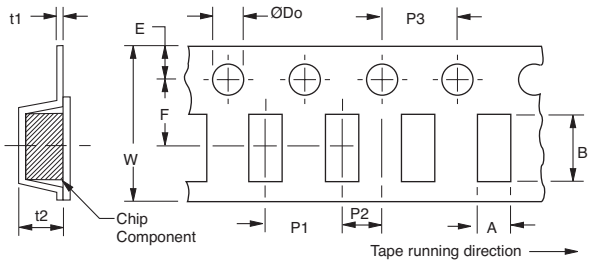
Electrical Characteristics

RoHS Compliant 1812 Size Part Number	Inductance µH	Tolerance	Q Min.	Test Freq. MHz	SRF Typ. MHz	RDC Ohms Max.	IDC mA Max.
PM1812-R10K-RC	0.10	±10 %	35	25.2	780.0	0.18	800
PM1812-R12K-RC	0.12	±10 %	35	25.2	735.0	0.2	770
PM1812-R15K-RC	0.15	±10 %	35	25.2	615.0	0.22	730
PM1812-R18K-RC	0.18	±10 %	35	25.2	570.0	0.24	700
PM1812-R22K-RC	0.22	±10 %	40	25.2	505.0	0.25	665
PM1812-R27K-RC	0.27	±10 %	40	25.2	450.0	0.26	635
PM1812-R33K-RC	0.33	±10 %	40	25.2	425.0	0.28	605
PM1812-R39K-RC	0.39	±10 %	40	25.2	390.0	0.30	575
PM1812-R47K-RC	0.47	±10 %	40	25.2	350.0	0.32	545
PM1812-R56K-RC	0.56	±10 %	40	25.2	325.0	0.36	520
PM1812-R68K-RC	0.68	±10 %	40	25.2	300.0	0.40	500
PM1812-R82K-RC	0.82	±10 %	40	25.2	275.0	0.45	475
PM1812-1R0J-RC	1.0	±5 %	50	7.96	250.0	0.50	450
PM1812-1R2J-RC	1.2	±5 %	50	7.96	240.0	0.55	430
PM1812-1R5J-RC	1.5	±5 %	50	7.96	210.0	0.60	410
PM1812-1R8J-RC	1.8	±5 %	50	7.96	190.0	0.65	390
PM1812-2R2J-RC	2.2	±5 %	50	7.96	160.0	0.70	380
PM1812-2R7J-RC	2.7	±5 %	50	7.96	150.0	0.75	370
PM1812-3R3J-RC	3.3	±5 %	50	7.96	110.0	0.80	355
PM1812-3R9J-RC	3.9	±5 %	50	7.96	100.0	0.90	330
PM1812-4R7J-RC	4.7	±5 %	50	7.96	80.0	1.00	315
PM1812-5R6J-RC	5.6	±5 %	50	7.96	50.0	1.10	300
PM1812-6R8J-RC	6.8	±5 %	50	7.96	35.0	1.2	285
PM1812-8R2J-RC	8.2	±5 %	50	7.96	28.0	1.4	270
PM1812-100J-RC	10	±5 %	50	2.52	22.0	1.6	250
PM1812-120J-RC	12	±5 %	50	2.52	20.0	2	225
PM1812-150J-RC	15	±5 %	50	2.52	18.0	2.5	200
PM1812-180J-RC	18	±5 %	50	2.52	16.0	2.8	190
PM1812-220J-RC	22	±5 %	50	2.52	14.0	3.2	180
PM1812-270J-RC	27	±5 %	50	2.52	13.0	3.6	170
PM1812-330J-RC	33	±5 %	50	2.52	12.0	4	160
PM1812-390J-RC	39	±5 %	50	2.52	11.0	4.5	150
PM1812-470J-RC	47	±5 %	50	2.52	10.5	5	140
PM1812-560J-RC	56	±5 %	50	2.52	10.0	5.5	135
PM1812-680J-RC	68	±5 %	50	2.52	9.5	6	130
PM1812-820J-RC	82	±5 %	50	2.52	8.5	7	120
PM1812-101J-RC	100	±5 %	40	2.52	8.0	8	110
PM1812-121J-RC	120	±5 %	40	0.796	7.0	8	110
PM1812-151J-RC	150	±5 %	40	0.796	6.0	9	105
PM1812-181J-RC	180	±5 %	40	0.796	5.5	9.5	102
PM1812-221J-RC	220	±5 %	40	0.796	5.0	10	100
PM1812-271J-RC	270	±5 %	40	0.796	4.5	12	92
PM1812-331J-RC	330	±5 %	40	0.796	4.0	14	85
PM1812-391J-RC	390	±5 %	40	0.796	3.5	18	80
PM1812-471J-RC	470	±5 %	40	0.796	3.5	26	62
PM1812-561J-RC	560	±5 %	30	0.796	3.0	30	50
PM1812-681J-RC	680	±5 %	30	0.796	3.0	30	50
PM1812-821J-RC	820	±5 %	30	0.796	2.5	35	30
PM1812-102J-RC	1000	±5 %	20	0.252	2.5	40	30

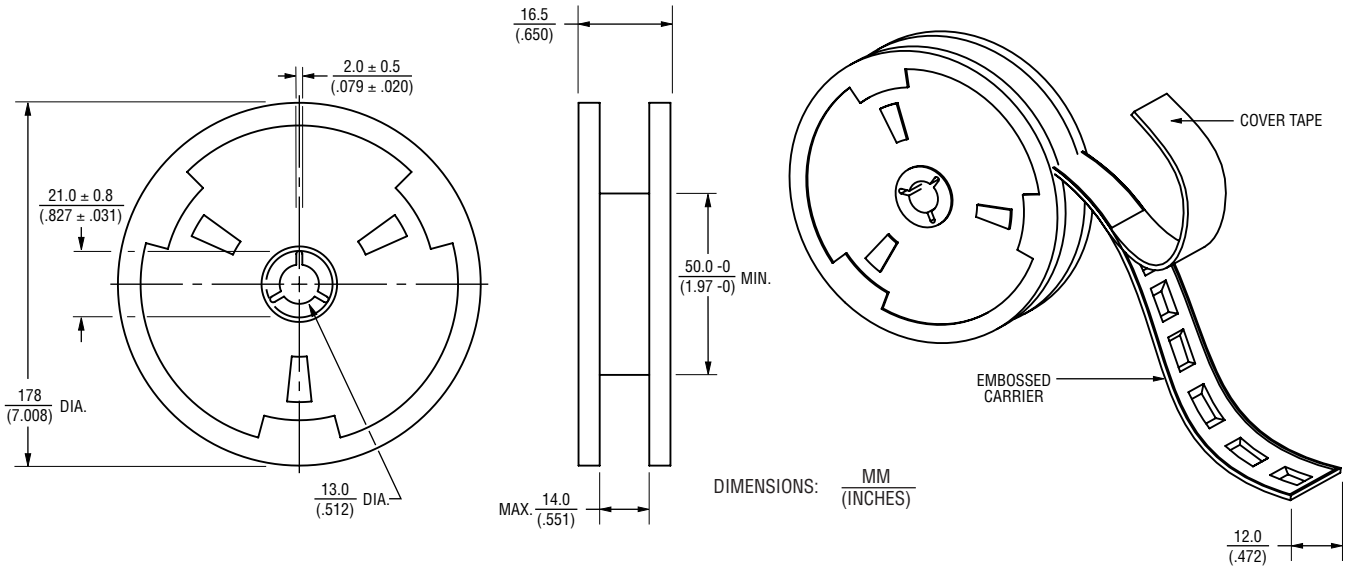
Packaging Specifications



Model	Quantity	Weight
PM1812	500 pcs.	100 g

Model	A	B	W	F	E	P1	P2	P3	øD0	øD1	t1	t2
PM1812	3.60 (.142)	4.90 (.193)	12.00 (.472)	5.50 (.217)	1.75 (.069)	8.00 (.315)	2.00 (.079)	4.00 (.157)	1.50 (.059)	—	0.30 (.012)	3.50 (.138)

Reel Dimensions



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