芯芒微电子

XINMANG MICROELECTRONICS

POWERHEN

Electronics

产品规格书

PR2009

贴片大电流功率电感

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样品申请 · 替代选型 · 批量报价，欢迎来函来电

SMD HIGH CURRENT POWER INDUCTOR 贴片大电流功率电感

■PR2000 Series

Features

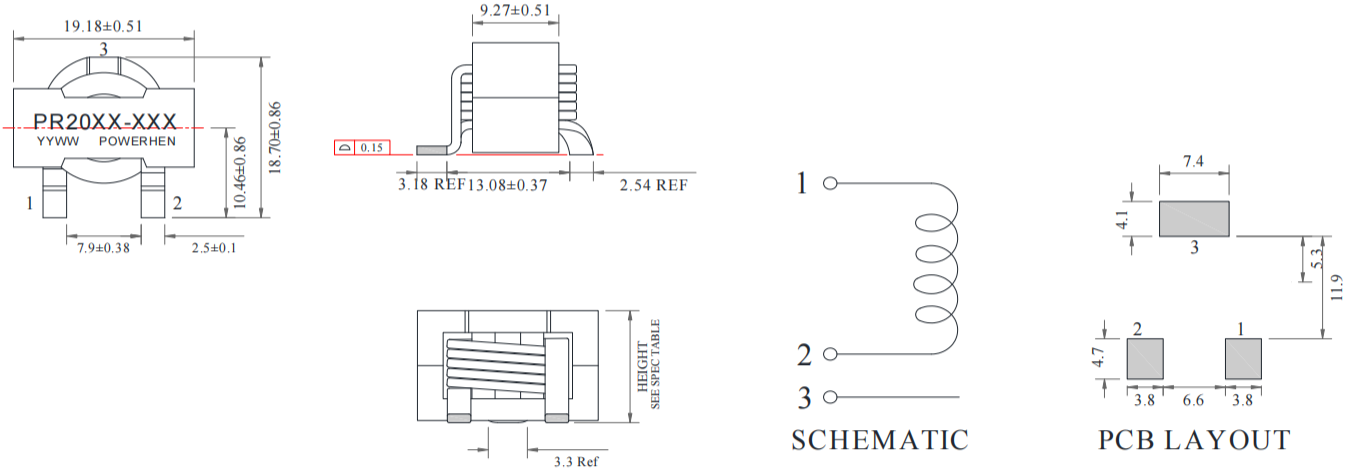
- Susing flat wire, and SMD type. 采用扁平线，贴片类型
- Low radiation noise by magnetically shielded construction
  闭合磁路封装，低辐射
- High current, Low resistance. 大电流，低电阻
- Operating temperature : -40℃~+125℃. 工作温度：-40℃~+125℃
- Tape and reel packaging: -40°C to +80°C 卷带包装： －40° C 至 +80° C
- Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
  耐焊接热 最多三个 40 秒回流 +260° C，部件在循环之间冷却至室温
- Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
  湿气敏感度等级 (MSL) 1（在 <30° C 时的无限车间寿命/ 85% 相对湿度）



Applications

- high efficiency DC/DC converters. 高效 DC/DC 转换器
- Single and polyphase buck converters. 单相、多相降压转换器
- Filter for audio applications.音频滤波应用
- Optimized for high current boost applications. 大电流升压应用优化

Dimensions 结构尺寸



Type	Height (mm) Max.	Weight (g)
PR2009	8.64	6.65~6.89
PR2010	9.40	7.46~7.90
PR2011	10.67	8.63~9.08
PR2012	11.94	9.92~10.30
PR2013	12.95	10.80~11.40
PR2014	13.97	11.70~12.40

CAUTION:

Terminal 3 is provided for mounting stability only.This terminal is connected to the winding of the inductor and must not be connected to ground or any circuitry.

端子 3 仅用于提供安装稳定性，并且这个端子连接到电感器绕组，其不能用于接地或连接其他电路

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Electrical characteristics

Part number 料号	Inductance① 电感量 μH	DCR (mΩ)② 直流电阻 typ	DCR (mΩ)② 直流电阻 max.	SRF③ 自谐频率 MHz typical	Isat④ 饱和电流 A typical 20% drop	Irms ⑤ 温升电流 A typical 20℃ rise	Irms ⑤ 温升电流 A typical 40℃ rise
PR2009-301ML	0.3±20%	0.63	0.74	550	>100	41	54
PR2010-301ML	0.3±20%	0.9	1.00	182	>100	36	45
PR2009-501ML	0.5±20%	0.63	0.74	544	60	41	54
PR2010-501ML	0.5±20%	0.9	1.00	148	81	36	45
PR2011-501ML	0.5±20%	1.2	1.34	161	>100	30	40
PR2009-601ML	0.6±20%	0.63	0.74	648	49	41	54
PR2010-601ML	0.6±20%	0.9	1.00	115	70	36	45
PR2011-601ML	0.6±20%	1.2	1.34	124	90	30	40
PR2012-601ML	0.6±20%	1.44	1.60	115	97	25	35
PR2009-681ML	0.68±20%	0.63	0.74	454	45	41	54
PR2010-681ML	0.68±20%	0.9	1.00	136	62	36	45
PR2011-681ML	0.68±20%	1.2	1.34	135	78	30	40
PR2012-681ML	0.68±20%	1.44	1.60	103	85	25	35
PR2013-681ML	0.68±20%	1.7	1.82	104	98	23	30
PR2009-801ML	0.8±20%	0.63	0.74	567	38	41	54
PR2010-801ML	0.8±20%	0.9	1.00	92	53	36	45
PR2011-801ML	0.8±20%	1.2	1.34	113	70	30	40
PR2012-801ML	0.8±20%	1.44	1.60	91	75	25	35
PR2013-801ML	0.8±20%	1.7	1.82	93	85	23	30
PR2014-801ML	0.8±20%	1.8	2.15	104	98	21	27
PR2009-901ML	0.9±20%	0.63	0.74	557	33	41	54
PR2010-901ML	0.9±20%	0.9	1.00	96	48	36	45
PR2011-901ML	0.9±20%	1.2	1.34	104	62	30	40
PR2012-901ML	0.9±20%	1.44	1.60	85	69	25	35
PR2013-901ML	0.9±20%	1.7	1.82	98	73	23	30
PR2014-901ML	0.9±20%	1.8	2.15	102	87	21	27
PR2009-102ML	1.0±20%	0.63	0.74	488	29	41	54
PR2010-102ML	1.0±20%	0.9	1.00	81	42	36	45
PR2011-102ML	1.0±20%	1.2	1.34	97	56	30	40
PR2012-102ML	1.0±20%	1.44	1.60	75	64	25	35
PR2013-102ML	1.0±20%	1.7	1.82	98	68	23	30
PR2014-102ML	1.0±20%	1.8	2.15	88	70	21	27
PR2009-122ML	1.2±20%	0.63	0.74	81	28	41	54
PR2010-122ML	1.2±20%	0.9	1.00	69	37	36	45
PR2011-122ML	1.2±20%	1.2	1.34	81	49	30	40
PR2012-122ML	1.2±20%	1.44	1.60	73	54	25	35
PR2013-122ML	1.2±20%	1.7	1.82	82	58	23	30
PR2014-122ML	1.2±20%	1.8	2.15	78	63	21	27
PR2009-202KL	2.0±10%	0.63	0.74	40	16	41	54
PR2010-202KL	2.0±10%	0.9	1.00	48	27	36	45
PR2011-202KL	2.0±10%	1.2	1.34	56	32	30	40
PR2012-202KL	2.0±10%	1.44	1.60	51	35	25	35
PR2013-202KL	2.0±10%	1.7	1.82	61	40	23	30
PR2014-202KL	2.0±10%	1.8	2.15	62	45	21	27
PR2013-362KL	3.6±10%	1.7	1.82	38	25	23	30
PR2013-402KL	4.0±10%	1.7	1.82	35	20	23	30
PR2014-402KL	4.0±10%	1.8	2.15	36	25	21	27
PR2013-472KL	4.7±10%	1.7	1.82	30	18	23	30

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Remark

①Inductance is measured with a LCR meter Agilent 4284A or equivalent.
Test frequency at 100kHz

②DC resistance is measured with keithley 580 Milliohm Meter , or equivalent.
Reference ambient temperature 25°C

③SRF measured using an Agilent 4395A network analyzer and an Agilent 16193A test fixture.

④DC current at 25°C that causes the specified inductance drop from its value without current.

⑤Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

⑥Electrical specifications at 25°C

备注

①电感量测试采用 Agilent 4284A 数字电桥或同等仪器；
测试频率 100KHz

②直流电阻测试采用 keithley 580 毫欧表或同等仪器；
环境温度 25° C

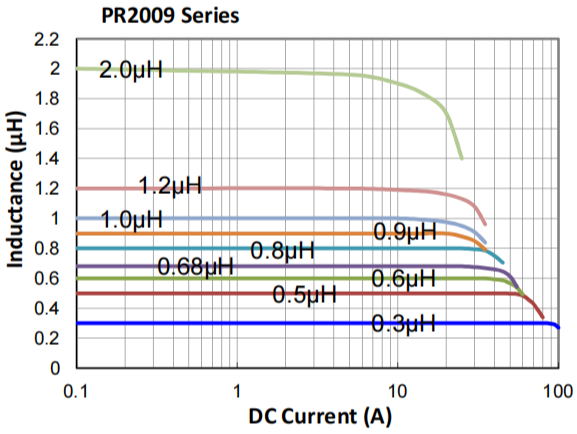
③SRF 使用 Agilent 4395A 网络分析仪和 Agilent 16193A 测试夹具测量。

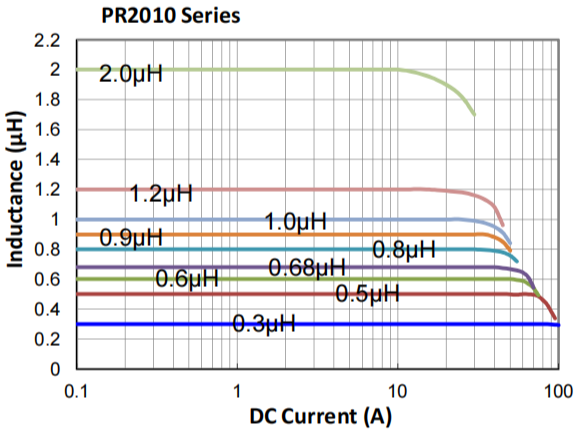
④直流电流在 25° C，加载导致指定电感从没有电流的值下降。

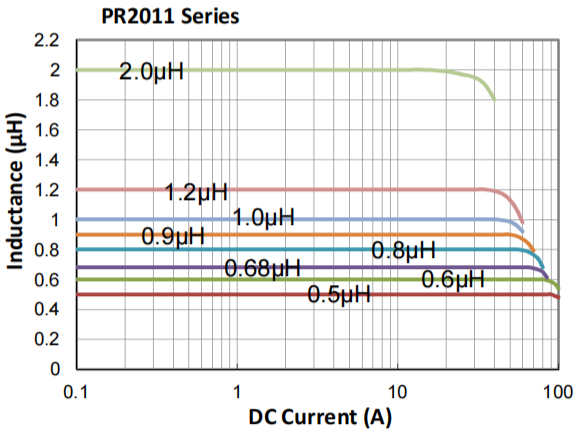
⑤导致指定温度从 25° C 环境温度上升的电流。 此信息仅供参考，不代表绝对最大额定值。

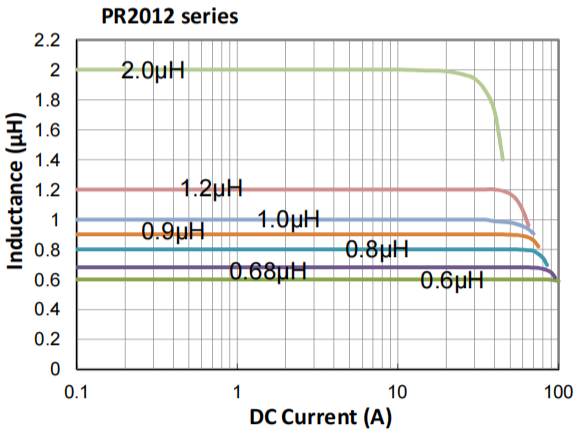
⑥25° C 时的电气规格

Electrical Characteristic Curve



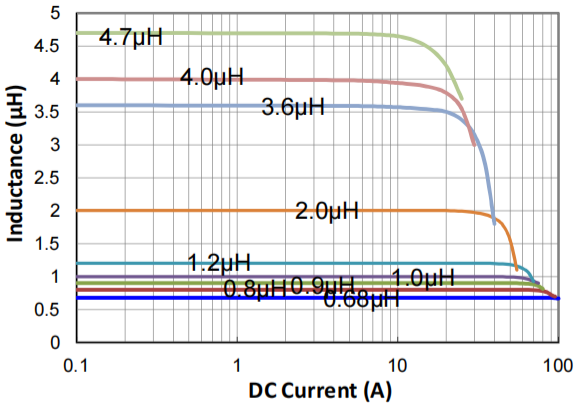




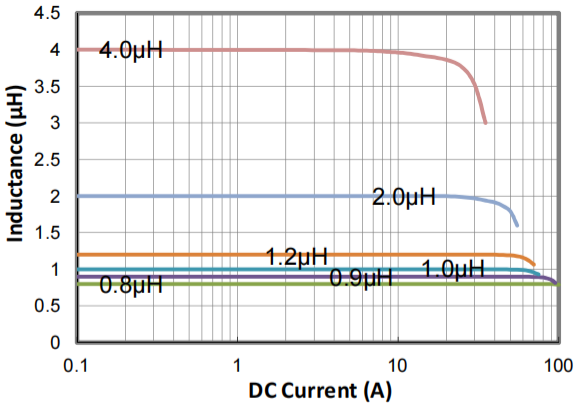


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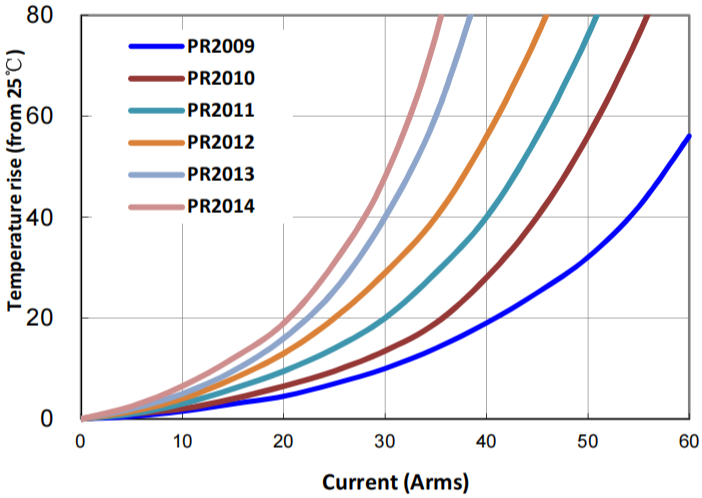
PR2013 Series



PR2014 Series



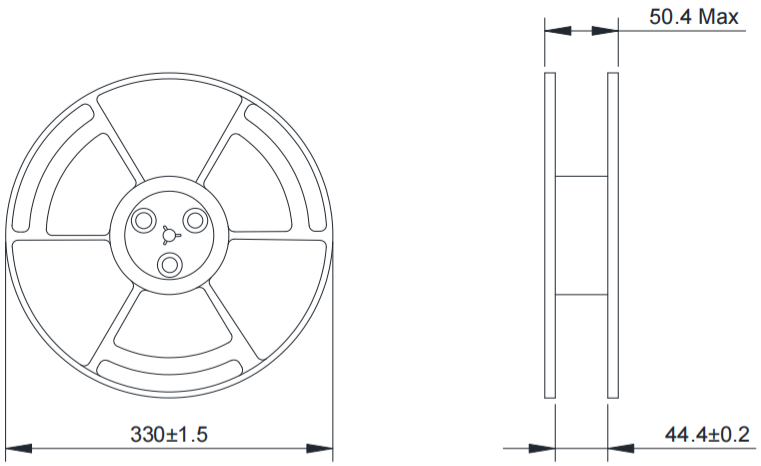
Temperature Rise vs Current(30 Minute)

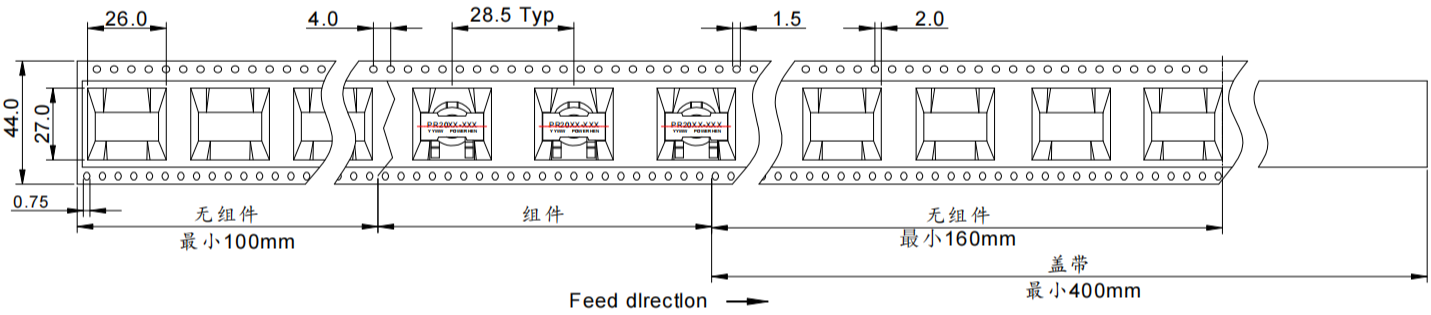


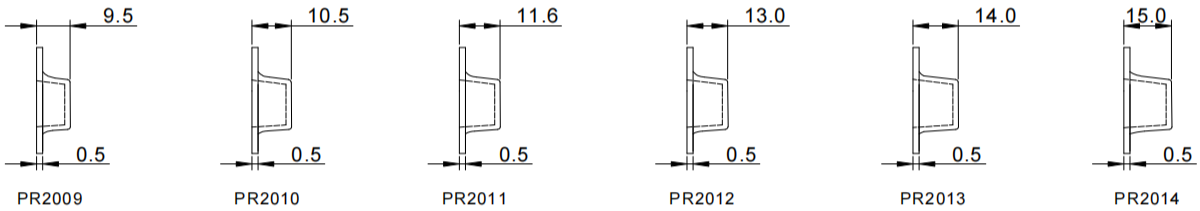
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■Packaging Specification - Tape and Reel: [mm]

包装规格 - 卷带包装：[mm]







PR2009	PR2010	PR2011	PR2012	PR2013	PR2014
重量: 6.65~6.89g/PCS 包装数量: 200 PCS/Reel	重量: 7.46~7.9g/PCS 包装数量: 200 PCS/Reel	重量: 8.63~9.08g/PCS 包装数量: 170 PCS/Reel	重量: 9.92~10.3g/PCS 包装数量: 150 PCS/Reel	重量: 10.8~11.4g/PCS 包装数量: 150 PCS/Reel	重量: 11.7~12.4g/PCS 包装数量: 125 PCS/Reel