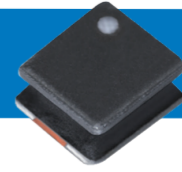


绕线贴片功率电感—WPG 系列

Wire Wound SMD Power Inductors –WPG Series



工作温度

Operating Temp

- ◆ $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (Including self-heating)

特征

Features

- ◆ 采用金属铁磁芯，具有更高的饱和电流
- ◆ 在磁芯上金属化电极，抗跌落冲击强，经久耐用
- ◆ 闭合磁路结构设计，漏磁少，抗 EMI 能力强
- ◆ 低直流电阻降低能量损耗，省电省空间
- ◆ Fe base metal material core provides large saturation current
- ◆ Metallization on ferrite core results in excellent shock resistance and damage-free durability
- ◆ Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- ◆ Low DCR decreases power loss, small and slim take up less PCB real estate

用途

Applications

- ◆ 智能手机、TV、虚拟现实、增强现实
- ◆ 笔记本电脑、智能手表、服务器
- ◆ 工业仪表、安防设备
- ◆ Smart phone, TV, VR, AR
- ◆ Notebooks, smart watch, servers
- ◆ Industrial instrument, security equipment

产品型号

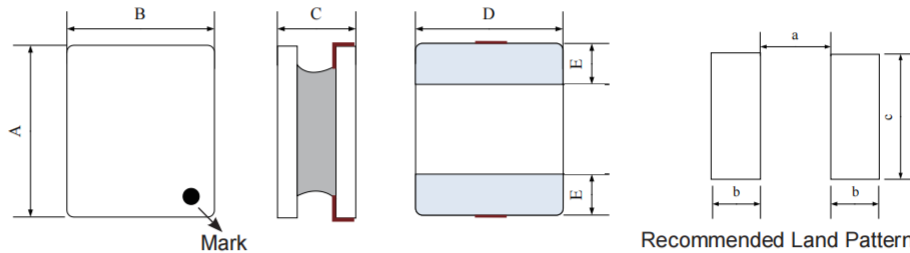
Product Identification

1	2	3	4	5	6	7
WPG	201210	UF	1R0	M	T	□□□

1	分类 Type	2	外形尺寸 (L×W×H) [mm] External Dimensions (L×W×H) [mm]	3	特性类别 Feature Type
WPG	绕线贴片功率电感 Wire Wound SMD Power Inductor	201210	2.0×1.25×1.0	UF	Internal Code
		201610	2.0×1.6×1.0		
		252010	2.5×2.0×1.0		
4	公称感量 Nominal Inductance	5	感量精度 Inductance Tolerance	6	包装 Packing
Example	Nominal Value	N	±30%	T	编带 Tape & Reel
R47	0.47μH	M	±20%		
1R0	1.0μH			7	设计代号 Design Code
				□□□	Design Code
					* Standard product is blank

外观尺寸

Shape and Dimensions



Series	A	B	C	D	E	a Typ.	b Typ.	c Typ.
WPG201210UF	2.0±0.2	1.25±0.2	1.0 Max.	1.25±0.2	0.60±0.2	0.70	0.70	1.40
WPG201610UF	2.0±0.2	1.6±0.2	1.0 Max.	1.6±0.2	0.60±0.2	0.70	0.70	1.70
WPG252010UF	2.5±0.2	2.0±0.2	1.0 Max.	2.0±0.2	0.60±0.2	1.20	0.80	2.00

Unit: mm

规格特性 Specifications

WPG201210UF Series

型号 Part Number	电感量 Inductance	直流电阻 Max. DC Resistance		自谐频率 Self-resonant Frequency	饱和电流 Saturation Current		温升电流 Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
单位 Units	μH	Ω		MHz	A		A	
符号 Symbol	L	DCR		S.R.F	Isat		Irms	
WPG201210UFR11MT	0.11 ± 20%	0.013	0.011	209	9.60	10.5	5.50	6.35
WPG201210UFR24MT	0.24 ± 20%	0.024	0.020	133	7.10	7.80	4.80	5.50
WPG201210UFR33MT	0.33 ± 20%	0.034	0.028	118	6.00	6.60	3.40	3.80
WPG201210UFR47MT	0.47 ± 20%	0.039	0.033	87	4.70	5.15	3.10	3.50
WPG201210UF1R0MT	1.0 ± 20%	0.080	0.067	61	3.10	3.40	2.80	3.20

WPG201610UF Series

型号 Part Number	电感量 Inductance	直流电阻 Max. DC Resistance		自谐频率 Self-resonant Frequency	饱和电流 Saturation Current		温升电流 Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
单位 Units	μH	Ω		MHz	A		A	
符号 Symbol	L	DCR		S.R.F	Isat		Irms	
WPG201610UFR24MT	0.24 ± 20%	0.018	0.015	122	6.50	7.20	4.90	5.60
WPG201610UFR33MT	0.33 ± 20%	0.022	0.018	98	6.00	6.60	4.75	5.15
WPG201610UFR47MT	0.47 ± 20%	0.030	0.025	81	5.00	5.50	4.10	4.50
WPG201610UF1R0MT	1.0 ± 20%	0.055	0.047	50	3.60	4.00	3.00	3.30
WPG201610UF2R2MT	2.2 ± 20%	0.140	0.120	31	2.70	3.00	2.15	2.35

WPG252010UF Series

型号 Part Number	电感量 Inductance	直流电阻 Max. DC Resistance		自谐频率 Self-resonant Frequency	饱和电流 Saturation Current		温升电流 Heat Rating Current	
	@1MHz,1V	Max.	Typ.	Min.	Max.	Typ.	Max.	Typ.
单位 Units	μH	Ω		MHz	A		A	
符号 Symbol	L	DCR		S.R.F	Isat		Irms	
WPG252010UFR24MT	0.24 ± 20%	0.018	0.015	148	9.00	9.90	5.15	5.65
WPG252010UFR33MT	0.33 ± 20%	0.022	0.018	115	8.20	9.00	4.70	5.15
WPG252010UFR47MT	0.47 ± 20%	0.030	0.025	100	6.55	7.20	4.00	4.40
WPG252010UF1R0MT	1.0 ± 20%	0.050	0.042	54	4.40	4.80	3.40	3.70
WPG252010UF1R5MT	1.5 ± 20%	0.068	0.060	39	3.60	3.95	2.60	2.90
WPG252010UF2R2MT	2.2 ± 20%	0.093	0.083	32	2.70	2.95	2.25	2.45
WPG252010UF3R3MT	3.3 ± 20%	0.130	0.110	27	2.00	2.20	1.90	2.10
WPG252010UF4R7MT	4.7 ± 20%	0.180	0.160	23	1.65	1.80	1.60	1.75

※1: 所有的测试数据均在 20°C 环境温度进行;

※1: All test data is referenced to 20°C ambient;

※2: 额定电流: 以饱和电流和温升电流中较小者为标准;

※2: Rated current: Isat or Irms, whichever is smaller;

※3: 饱和电流: 使电感值从初始状态下下降约 30% 的直流电流值;

※3: Isat: DC current at which the inductance drops approximate 30% from its value without current;

※4: 温升电流: 使产品表面温度从 20°C 升高 (ΔT=40°C) 的直流电流值。

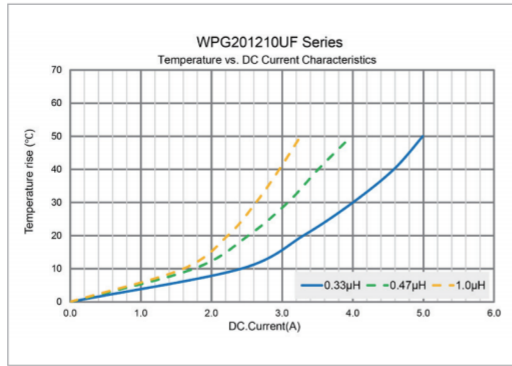
※4: Irms: DC current that causes the temperature rise (ΔT=40°C) from 20°C ambient.

电气特性

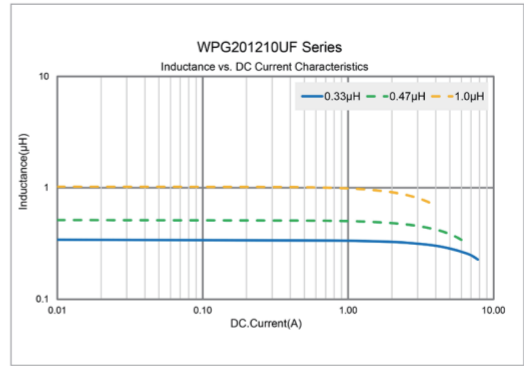
Typical Electrical Characteristics

WPG201210UF Series

Temperature vs. DC Current Characteristics

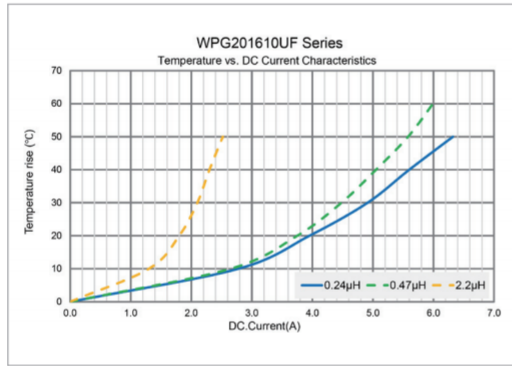


Inductance vs. DC Current Characteristics

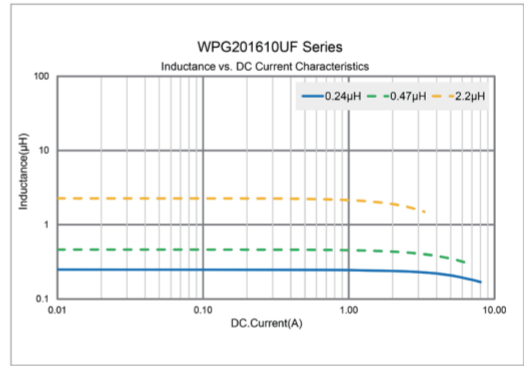


WPG201610UF Series

Temperature vs. DC Current Characteristics

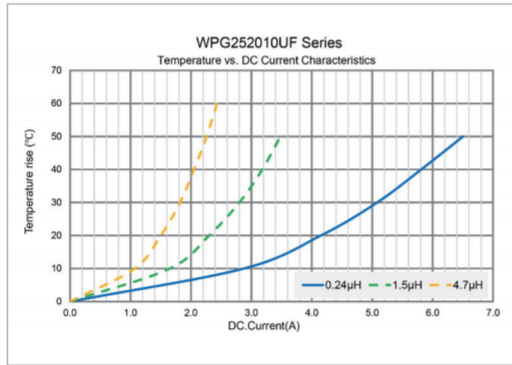


Inductance vs. DC Current Characteristics



WPG252010UF Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

