

绕线贴片功率电感—AMWPB 系列

Wire Wound SMD Power Inductor—AMWPB Series



工作温度：-55℃ ~+150℃ (含自温升)
Operating Temp：-55℃ ~+150℃ (Including self-heating)

特征 FEATURES

- ◆ 高饱和电流, 低直流电阻
- ◆ 优异的温度特性
- ◆ 高可靠性
- ◆ 满足 AEC-Q200 要求
- ◆ High saturation current, low DC resistance
- ◆ Excellent temperature stability
- ◆ High reliability,
- ◆ AEC-Q200 verified

用途 APPLICATIONS

- ◆ 车载信息娱乐系统
- ◆ LED 灯
- ◆ 安全气囊
- ◆ ADAS
- ◆ Infotainment system
- ◆ LED lighting
- ◆ Airbag
- ◆ ADAS

产品型号 PRODUCT IDENTIFICATION

1	2	3	4	5	6	7
AMWPB	6045	S	1R0	M	T	□□□

1	分类 Type
AMWPB	绕线贴片功率电感 Wire Wound SMD Power Inductor

2	外形尺寸 (L×W×H) (mm) External Dimensions (L×W×H) [mm]
6045	6.5×6.0×4.5
7045	7.4×7.0×4.5

3	特性类别 Feature Type
S	标准型 Standard

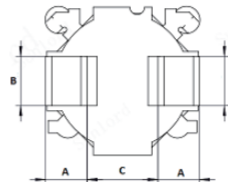
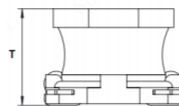
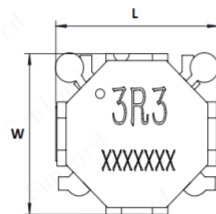
4	公称电感量 Nominal Inductance
Example	Nominal Value
1R0	1.0μH
100	10μH

5	感量精度 Inductance Tolerance
M	±20%
N	±30%

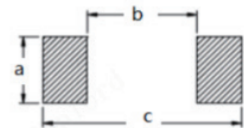
6	包装 Packing
T	编带 Tape Carrier Package

7	设计代码 Design Code
□□□	Standard product is blank

外观尺寸 SHAPE AND DIMENSIONS



推荐焊盘 Recommended Land Pattern



单位 Unit: mm

系列 Series	L	W	T	A	B	C	a	b	c
AMWPB6045S	6.5±0.3	6.0±0.3	4.5±0.3	1.7±0.1	2.0±0.1	2.9 Typ.	2.2ref.	2.8ref.	7.0ref.
AMWPB7045S	7.4±0.3	7.0±0.3	4.5±0.3	2.0±0.1	2.0±0.1	3.4 Typ.	2.2ref.	3.3ref.	8.1ref.

规格特性 SPECIFICATIONS

AMWPB6045 Series

型号 Part Number	电感值 Inductance		直流电阻 DC Resistance		饱和电流 Saturation Current		温升电流 Heat Rating Current
	-	测试条件 Test condition	Typ.	Max.	Typ.	Max.	Typ.
单位 Units	μH		mΩ		A		A
符号 Symbol	L		DCR		Isat		Irms
AMWPB6045S1R0MT	1.0±20%	100KHz/1V	13	16	9.3	8.2	5.9
AMWPB6045S1R5MT	1.5±20%	100KHz/1V	15	18	7.2	6.6	5.5
AMWPB6045S2R2MT	2.2±20%	100KHz/1V	22	26	6.6	6.0	4.5
AMWPB6045S3R3MT	3.3±20%	100KHz/1V	27	33	5.5	5.0	4.1
AMWPB6045S4R7MT	4.7±20%	100KHz/1V	29	35	4.1	3.7	3.8
AMWPB6045S5R6MT	5.6±20%	100KHz/1V	32	37	3.6	3.2	3.6
AMWPB6045S6R8MT	6.8±20%	100KHz/1V	42	50	3.6	3.1	3.3
AMWPB6045S8R2MT	8.2±20%	100KHz/1V	50	60	3.1	2.7	3.0
AMWPB6045S100MT	10±20%	100KHz/1V	56	73	3.0	2.6	2.7

AMWPB7045S Series

型号 Part Number	电感值 Inductance		直流电阻 DC Resistance		饱和电流 Saturation Current		温升电流 Heat Rating Current
	-	测试条件 Test condition	Typ.	Max.	Typ.	Max.	Typ.
单位 Units	μH		mΩ		A		A
符号 Symbol	L		DCR		Isat		Irms
AMWPB7045S1R0MT	1.0±20%	100KHz/1V	12	14	10.1	9.2	6.2
AMWPB7045S1R5MT	1.5±20%	100KHz/1V	14	17	9.0	8.1	5.7
AMWPB7045S2R2MT	2.2±20%	100KHz/1V	16	19	6.9	6.2	5.3
AMWPB7045S3R3MT	3.3±20%	100KHz/1V	21	25	5.4	4.9	4.7
AMWPB7045S4R7MT	4.7±20%	100KHz/1V	26	31	4.6	4.0	4.3
AMWPB7045S5R6MT	5.6±20%	100KHz/1V	28	33	4.1	3.8	4.1
AMWPB7045S6R8MT	6.8±20%	100KHz/1V	38	45	4.0	3.6	3.5
AMWPB7045S8R2MT	8.2±20%	100KHz/1V	42	50	3.7	3.4	3.3
AMWPB7045S100MT	10±20%	100KHz/1V	48	57	3.3	2.9	3.1
AMWPB7045S220MT	22±20%	100KHz/1V	85	102	2.2	1.7	2.0

注：※1:额定电流: Isat(Max.) 或 Irms(Typ.)，以较小数据为准。

※2:饱和电流:Max. 值:电感比初始电感量下降小于 30% 时，所对应的直流电流的大小；

Typ. 值:电感比初始电感量下降约 30% 时，所对应的直流电流的大小。

※3:温升电流:温度从 20°C 环境温度上升 (ΔT) 时，所对应的直流电流的大小。

对于 Max. 值，ΔT < 40°C；

对于 Typ. 值，ΔT 约是 40°C

在最坏的操作条件下，零件温度 (环境温度 + 温升) 不应超过 150°C。电路设计、元件放置、PCB 走线尺寸和厚度、气流和其他冷却规定都会影响零件温度。应在最终应用中验证零件温度。

Note:※1:Rated current: Isat(Max.) or Irms(Typ.), whichever is smaller.

※2:Saturation Current:

Max.Value, DC current at which the inductance drops less than 30% from its value without current;

Typ.Value, DC current at which the inductance drops approximate 30% from its value without current.

※3:Heat Rating Current: DC current that causes the temperature rise (ΔT) from 20°C ambient;

For Max. Value, temperature rise (ΔT) is 20°C.

For Typ. Value, temperature rise (ΔT) is approximate 40°C.

The part temperature (ambient + temp. rise) should not exceed 150 °C under worst case operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.