

屏蔽型贴片耦合电感—ACPR 系列

Shielded SMD Coupled Inductor—ACPR Series



工作温度

Operating Temp

- ◆ -50°C ~+150°C (Including self-heating)

特征

Features

- ◆ 高效率, 高耦合
- ◆ 高额定电流, 低直流电阻
- ◆ 符合 RoHS 标准
- ◆ AEC-Q200 认证
- ◆ High efficiency, high coupling
- ◆ High rated current, low DC resistance
- ◆ RoHS compatible
- ◆ AEC-Q200 qualified

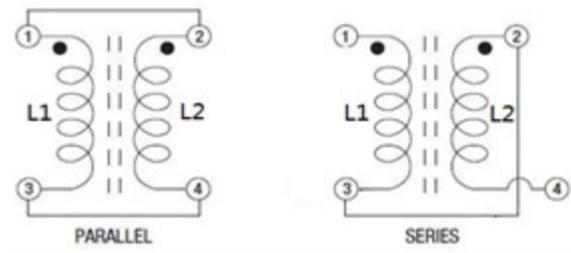
用途

Applications

- ◆ SEPIC, Zeta, 反激等拓扑结构电路
- ◆ LED 灯, 电源电路
- ◆ 可作共模使用
- ◆ 可作变压器使用
- ◆ SEPIC, Zeta, Flyback topology, etc.
- ◆ LED, power supplies
- ◆ Used as common mode choke
- ◆ Used as transformer

应用电路示意图

Application Circuit Diagram



产品型号

Product Identification

1	2	3	4	5	6	7	8
A	CP	R	1208	S	150	M	T

1	分类 Type
A	汽车电子 Automotive

2	分类 Type
CP	耦合电感 For Coupled Power Inductor

3	结构代码 Structure Code
R	R Structure

4	外形尺寸 (L×W) [mm] External Dimensions (L×W) [mm]
1208	12.5×8.0
1210	12.5×10.5

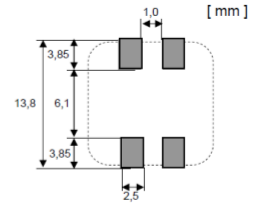
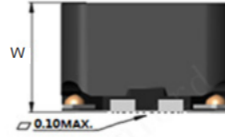
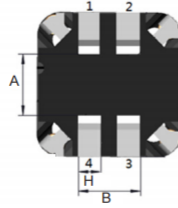
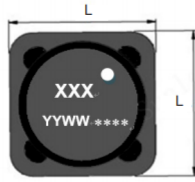
5	特性类别 Feature Type
S	S Standard

6	公称电感量 Nominal Inductance
例子 Example	感值 Nominal Value
150	15μH

7	感量精度 Inductance Tolerance
M	±20%

8	包装 Packing
T	编带 Tape & Reel

外观尺寸 Shape and Dimensions



单位 Unit: mm

系列 Series	L	W	H	A	B
ACPR1208	12.50 Max	8.50 Max.	1.80±0.20	5.0±0.20	6.5±0.20
ACPR1210	12.50 Max	10.50 Max.	1.80±0.20	5.0±0.20	6.5±0.20

规格特性 Specifications

ACPR1208S Series

型号 Part Number	感值 Inductance(μH)@100K,0.1V	直流电阻 DCR (mΩ) Max.	饱和电流 Isat (30%) (A)		温升电流 I _{rms} Typ. (A)
			Max.	Typ.	
ACPR1208S4R7MT	4.7±20%	25	9.2	12.9	5.0
ACPR1208S6R8MT	6.8±20%	29	8.1	11.4	4.5
ACPR1208S100MT	10±20%	36	6.8	9.8	4.1
ACPR1208S120MT	12±20%	38	6.0	8.0	3.8
ACPR1208S150MT	15±20%	40	5.2	7.0	3.6
ACPR1208S220MT	22±20%	72	4.7	6.7	3.0
ACPR1208S270MT	27±20%	96	3.9	5.7	2.7
ACPR1208S330MT	33±20%	105	3.6	5.2	2.5
ACPR1208S470MT	47±20%	132	3.1	4.3	2.2
ACPR1208S680MT	68±20%	206	2.5	3.6	1.8
ACPR1208S101MT	100±20%	280	2.1	3.0	1.5

ACPR1210S Series

型号 Part Number	感值 Inductance(μH)@100K,0.1V	直流电阻 DCR (mΩ) Max.	饱和电流 Isat (30%) (A)		温升电流 I _{rms} Typ. (A)
			Max.	Typ.	
ACPR1210S3R9MT	3.9±20%	18	12.5	17.6	7.0
ACPR1210S100MT	10.0±20%	28	7.1	10.6	5.6
ACPR1210S120MT	12.0±20%	28	7.1	10.6	5.6
ACPR1210S330MT	33.0±20%	75	4.0	6.2	3.1

注：※ 1: 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大约 30% 时, 所对应的直流电流的大小。

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

对于 Max. 值, ΔT 是 20℃;

对于 Typ. 值, ΔT 约是 40℃。

在最坏的操作条件下, 零件温度 (环境温度 + 温升) 不应超过 150℃。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: 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.

※ 2: Heat Rating Current: DC current that causes the temperature rise (ΔT) from 20℃ ambient;

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

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

The part temperature (ambient + temp. rise) should not exceed 150℃ 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.

等效电路 Equivalent Circuit

