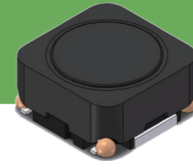


# 组装式贴片功率电感—ALPR 系列 Assembled SMD Power Inductor—ALPR Series



工作温度：-50°C ~+150°C (含自温升)  
Operating Temp：-50°C ~+150°C (Including self-heating)

## 特征

### FEATURES

- ◆ 低损耗, 低 DCR
- ◆ 高性能
- ◆ 满足 AEC-Q200 要求
- ◆ Low loss Realized with low DCR
- ◆ High Performance
- ◆ AEC-Q200 verified

## 用途

### APPLICATIONS

- ◆ 车灯
- ◆ 逆变器
- ◆ ECU
- ◆ LED Lighting
- ◆ Inverter
- ◆ ECU

## 产品型号

### PRODUCT IDENTIFICATION

| 1    | 2    | 3 | 4   | 5 | 6 | 7   |
|------|------|---|-----|---|---|-----|
| ALPR | 1208 | S | XXX | M | T | □□□ |

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#### 分类 Type

|      |                                                       |
|------|-------------------------------------------------------|
| ALPR | 车载组装贴片功率电感<br>Automotive Assembled SMD Power Inductor |
|------|-------------------------------------------------------|

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#### 外形尺寸 (L×W×H) [mm] External Dimensions (L×W×H) [mm]

|      |             |
|------|-------------|
| 1208 | 12.1×12.1×8 |
|------|-------------|

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#### 特性类别 Feature Type

|   |        |
|---|--------|
| S | S type |
|---|--------|

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#### 公称电感量 Nominal Inductance

| Example | Nominal Value |
|---------|---------------|
| 4R7     | 4.7μH         |
| 6R8     | 6.8μH         |
| 100     | 10μH          |
| 150     | 15μH          |
| 220     | 22μH          |
| 270     | 27μH          |
| 330     | 33μH          |
| 470     | 47μH          |
| 680     | 68μH          |
| 101     | 100μH         |

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#### 感量精度 Inductance Tolerance

|   |      |
|---|------|
| M | ±20% |
|---|------|

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#### 包装 Packing

|   |                |
|---|----------------|
| T | 编带 Tape & Reel |
|---|----------------|

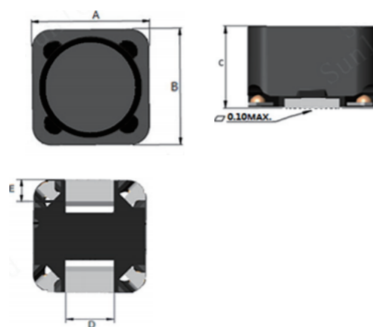
7

#### 设计代码 Design Code

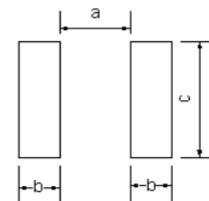
|     |                           |
|-----|---------------------------|
| □□□ | Standard product is blank |
|-----|---------------------------|

## 外观尺寸

### SHAPE AND DIMENSIONS



### 推荐焊盘 Recommended Land Pattern



单位 Unit: mm

| 系列 Series | A        | B        | C       | D       | E       | a      | b       | c      |
|-----------|----------|----------|---------|---------|---------|--------|---------|--------|
| ALPR1208S | 12.1±0.4 | 12.1±0.4 | 8.0±0.3 | 5.0±0.2 | 2.4±0.3 | 6.6ref | 3.25ref | 5.6ref |

## 规格特性

### SPECIFICATIONS

#### ALPR1208S Series

| 型号<br>Part Number | 电感值<br>Inductance | 直流电阻<br>DC Resistance |       | 饱和电流<br>Saturation Current |      | 温升电流<br>Heat Rating Current | 耐压值<br>Withstanding Voltage |
|-------------------|-------------------|-----------------------|-------|----------------------------|------|-----------------------------|-----------------------------|
|                   | 100KHz/1V         | Max.                  | Typ.  | Max.                       | Typ. | Typ.                        | Typ.                        |
| 单位 Units          | μH                | mΩ                    |       | A                          |      | A                           | V <sub>DC</sub>             |
| 符号 Symbol         | L                 | DCR                   |       | Isat                       |      | I <sub>rms</sub>            | /                           |
| ALPR1208S4R7MT    | 4.7±20%           | 12.5                  | 10.4  | 11.0                       | 13.0 | 7.2                         | 500                         |
| ALPR1208S6R8MT    | 6.8±20%           | 14.0                  | 11.7  | 9.3                        | 11.0 | 6.5                         |                             |
| ALPR1208S100MT    | 10±20%            | 17.6                  | 14.7  | 7.6                        | 9.0  | 5.9                         |                             |
| ALPR1208S150MT    | 15±20%            | 21.5                  | 17.9  | 6.1                        | 7.2  | 5.2                         |                             |
| ALPR1208S220MT    | 22±20%            | 36.6                  | 30.5  | 5.6                        | 6.6  | 4.3                         |                             |
| ALPR1208S270MT    | 27±20%            | 48.7                  | 40.6  | 4.7                        | 5.6  | 3.9                         |                             |
| ALPR1208S330MT    | 33±20%            | 54.6                  | 45.5  | 4.2                        | 5.0  | 3.6                         |                             |
| ALPR1208S470MT    | 47±20%            | 67.0                  | 55.8  | 3.4                        | 4.0  | 3.2                         |                             |
| ALPR1208S680MT    | 68±20%            | 105.0                 | 87.5  | 2.8                        | 3.4  | 2.6                         |                             |
| ALPR1208S101MT    | 100±20%           | 148.9                 | 124.1 | 2.3                        | 2.8  | 2.2                         |                             |

注：※1: 额定电流: Isat(Max.) 或 I<sub>rms</sub>(Typ.), 以较小数据为准。

※2: 饱和电流: 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 40°C(ΔT) 时, 所对应的直流电流的大小。

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 I<sub>rms</sub>(Typ.), whichever is smaller.

※2: Saturation Current: Typ. Value, DC current at which the inductance drops approximately 30% from its value without current;

※3: Heat Rating Current: DC current that causes an approximate ΔT of 40°C from 20°C ambient.

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.