

## Shielded SMD Coupled Inductor –ACPR Series

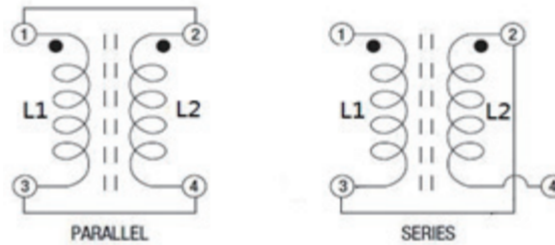


Operating Temp : -50°C ~ +150°C

- FEATURES**
- ◆ High efficiency, high coupling
  - ◆ High rated current, low DC resistance
  - ◆ RoHS compatible
  - ◆ AEC-Q200 verified

- APPLICATIONS**
- ◆ SEPIC, Zeta, Flyback topology, etc.
  - ◆ LED, power supplies
  - ◆ Used as common mode choke
  - ◆ Used as transformer

**APPLICATION  
CIRCUIT  
DIAGRAM**



**PRODUCT  
IDENTIFICATION**

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

1	Type
A	Automotive

2	Type
CP	for Coupled Power Inductor

3	Structure Code
R	R Structure

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

5	Feature Type
S	S Standard

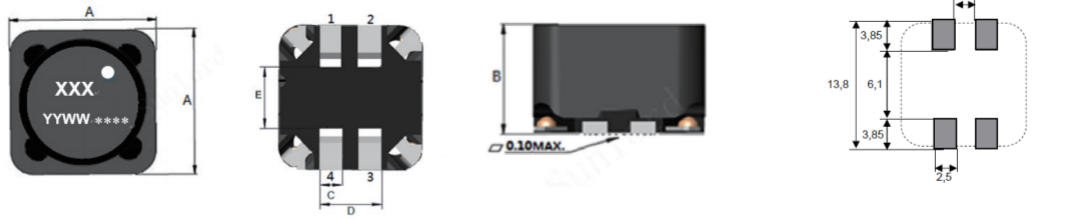
6	Nominal Inductance
Example	Nominal Value
150	15μH

7	Inductance Tolerance
M	±20%

8	Packing
T	Tape & Reel

**SHAPE AND DIMENSIONS**

**Recommended Land Pattern**



Unit: mm

Series	A	B	C	D	E
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

**SPECIFICATIONS ACPR1208S Series**

Part Number	Inductance(μH)@100K,0.1V	DCR (mΩ)Max.	Isat (30%) (A)		Irms 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**

Part Number	Inductance(μH)@100K,0.1V	DCR (mΩ)Max.	Isat (30%) (A)		Irms 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	10.4	5.6
ACPR1210S330MT	33.0±20%	75	4.0	6.2	3.1

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°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.

**EQUIVALENT CIRCUIT**

