

SDDA Series

SMD Shielded Power Inductor

Size 1210

FEATURES

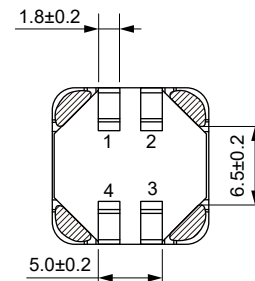
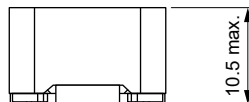
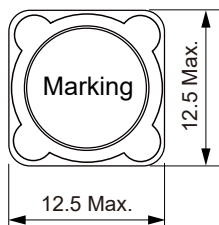
- Low loss realized with low DCR.
- High performance realized by metal dust core.
Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -50 to +150 °C (including self-temperature rise)
- Quantity: 300PCS



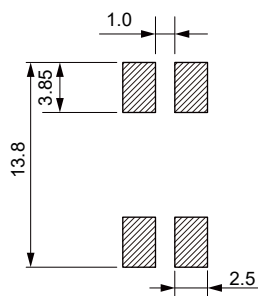
APPLICATION

- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation
- SEPIC circuit

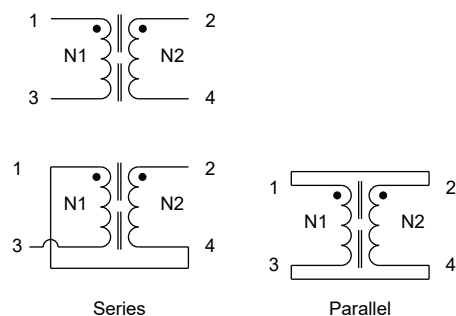
Dimensions: [mm]



Land Patterns: [mm]



Schematic:



Electrical Properties:

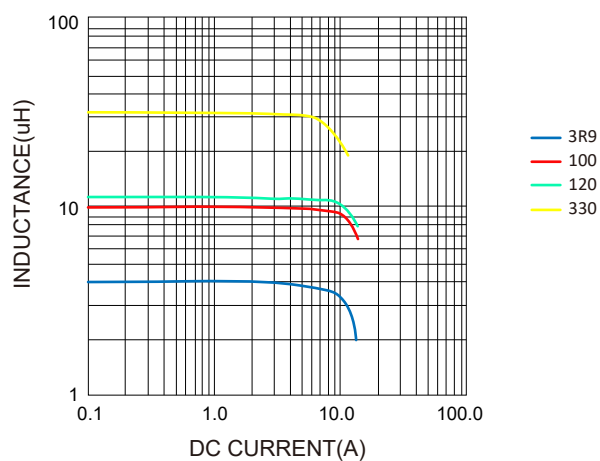
Part No	Inductance @ 100KHz/0.1V (μ H)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Max. (m Ω)	Hi-POT
SDDA1210-3R9M	3.9	$\pm 20\%$	7.0	17.6	12.5	18	DC 500V/1Sec
SDDA1210-100M	10.0	$\pm 20\%$	5.6	10.6	7.1	28	DC 500V/1Sec
SDDA1210-120M	12.0	$\pm 20\%$	5.6	10.6	7.1	28	DC 500V/1Sec
SDDA1210-330M	33.0	$\pm 20\%$	3.1	6.2	4.0	75	DC 500V/1Sec

Saturation Current will cause L to drop approximately 30%

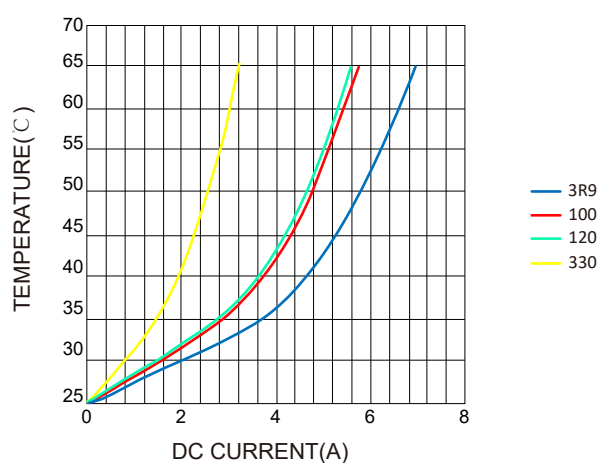
Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T = 40^\circ\text{C}$

Typical Electrical Characteristics:

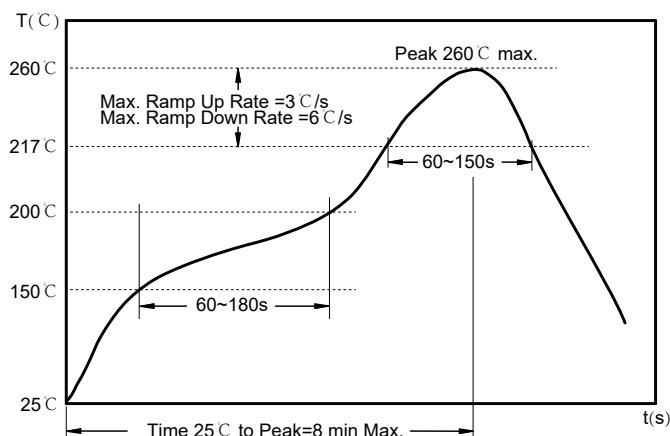
Inductance VS. DC Current Characteristics:



Temperature VS. DC Current Characteristics:



Soldering Reflow:



Preheat condition: 150 ~200°C / 60~180 sec.

Allowed time above 217°C : 60~150 sec.

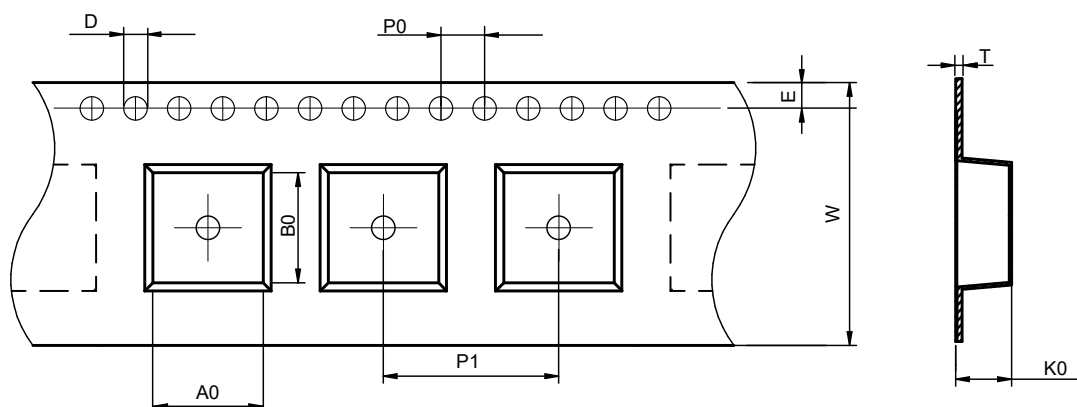
Max temperature: 260°C.

Max time at max temperature: 5 sec.

Allowed Reflow time: 3x max.

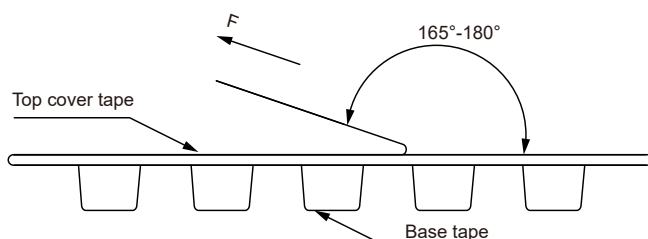
Packaging Information:

Tape Dimension :



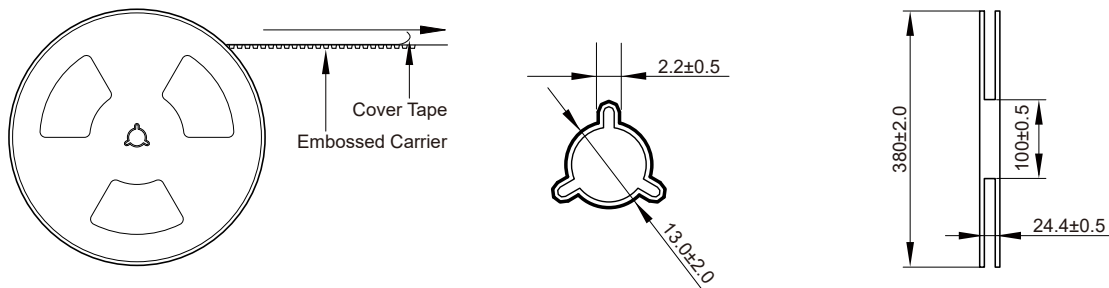
Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
SDDA1210	12.5±0.1	12.5±0.1	1.5±0.1	4.0±0.1	20.0±0.1	24.0±0.3	11.05±0.1	1.75±0.1	0.50±0.05

Peel force of top cover tape:

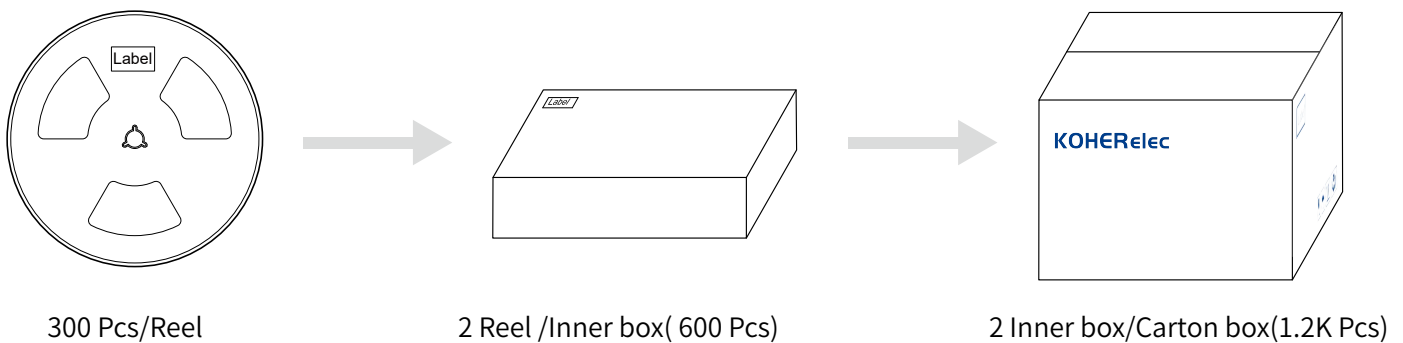


The peel force of top cover tape shall be between 0.1 to 1.3 N

Reel Dimension: [mm]



Packaging Quantity:



Cautions and Warnings:

Storage Conditions:

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C , humidity: 75% RH Max). If the storage period elapses, the soldering of the terminal electrodes may deteriorate. The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C .
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does. As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.