SDDA Series

SMD Shielded Power Inductor

Size 1280

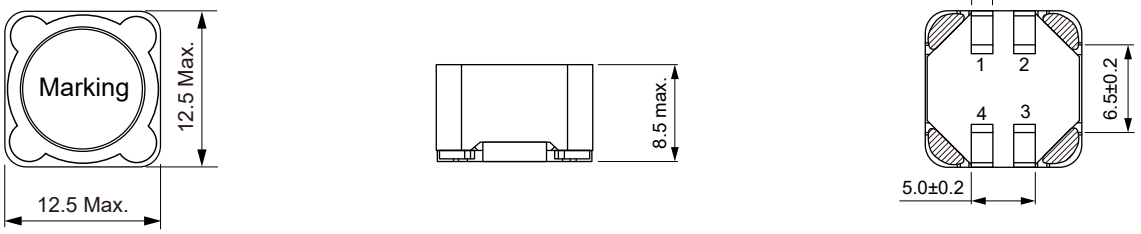
FEATURES

- 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: 500PCS

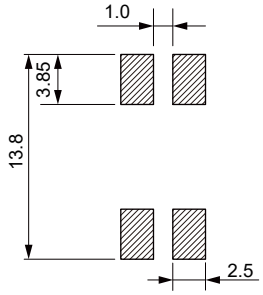
APPLICATION

- 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

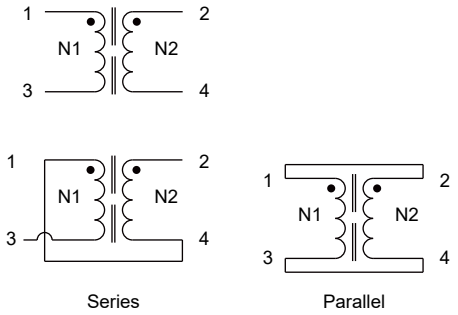
Dimensions: [mm]



Land Patterns: [mm]



Schematic:



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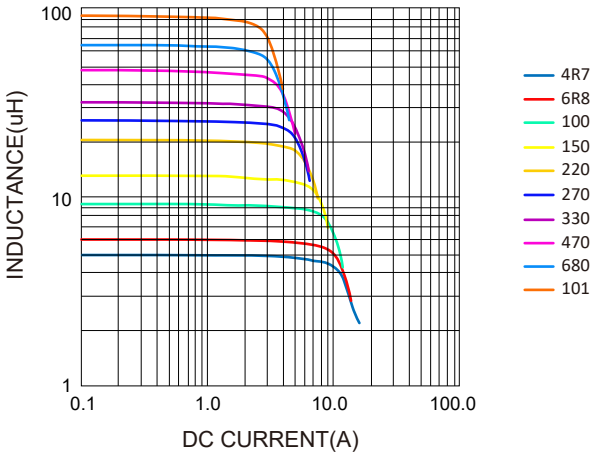
Electrical Properties:

Part No	Inductance @ 100KHz/0.1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Max. (mΩ)	Hi-POT
SDDA1280-4R7M	4.7	±20%	5.0	12.9	9.2	25	DC 500V/1Sec
SDDA1280-6R8M	6.8	±20%	4.5	11.4	8.1	29	DC 500V/1Sec
SDDA1280-100M	10	±20%	4.1	9.8	6.8	36	DC 500V/1Sec
SDDA1280-150M	15	±20%	3.6	7.0	5.2	40	DC 500V/1Sec
SDDA1280-220M	22	±20%	3.0	6.7	4.7	72	DC 500V/1Sec
SDDA1280-270M	27	±20%	2.7	5.7	3.9	96	DC 500V/1Sec
SDDA1280-330M	33	±20%	2.5	5.2	3.6	105	DC 500V/1Sec
SDDA1280-470M	47	±20%	2.2	4.3	3.1	132	DC 500V/1Sec
SDDA1280-680M	68	±20%	1.8	3.6	2.5	206	DC 500V/1Sec
SDDA1280-101M	100	±20%	1.5	3.0	2.1	280	DC 500V/1Sec

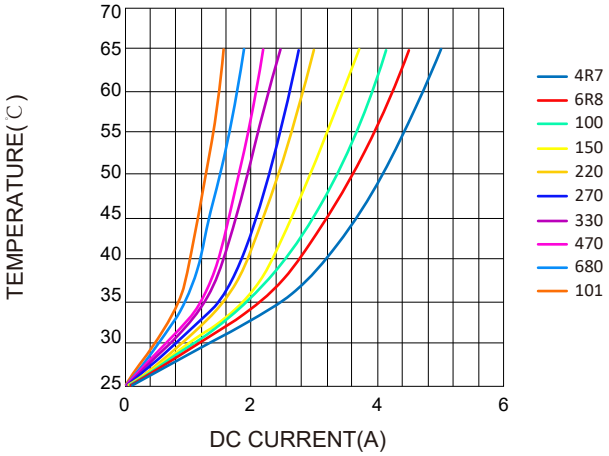
Saturation Current will cause L to drop approximately 30%
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

Typical Electrical Characteristics:

Inductance VS. DC Current Characteristics:



Temperature VS. DC Current Characteristics:



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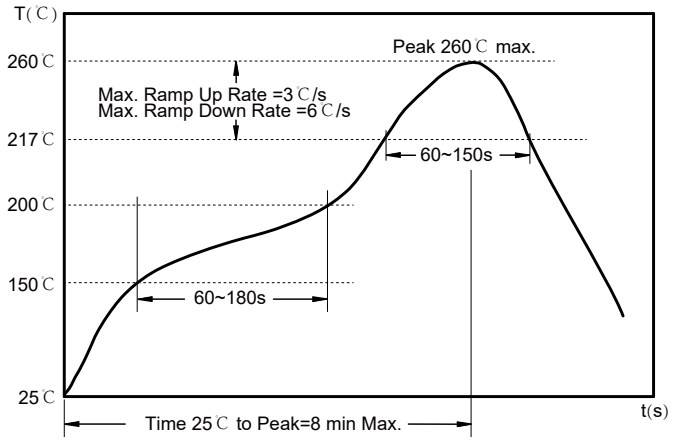
Soldering Reflow:



Preheat condition: 150 ~200℃/ 60~180 sec.

Allowed time above 217℃: 60~150 sec.

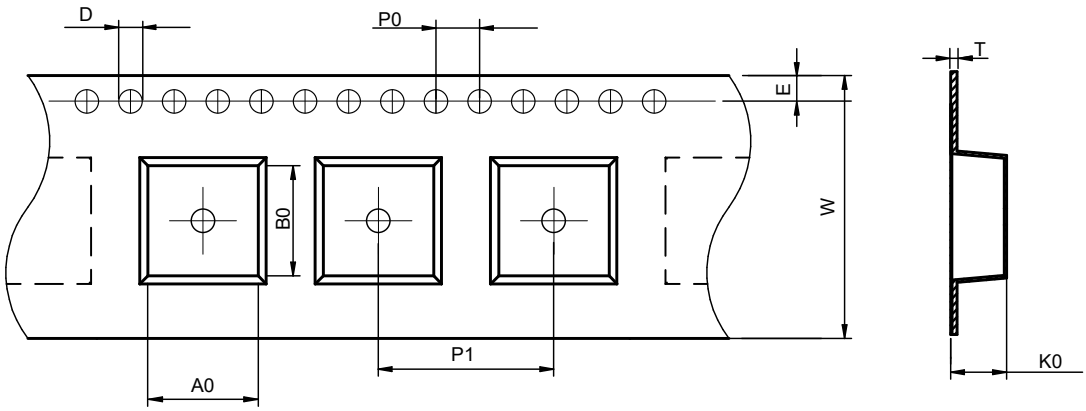
Max temperature: 260℃.

Max time at max temperature: 5 sec.

Allowed Reflow time: 3x max.

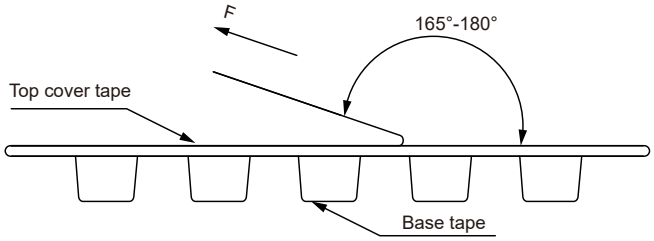
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
SDDA1280	12.5±0.1	12.5±0.1	1.5±0.1	4.0±0.1	20.0±0.1	24.0±0.3	8.4±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

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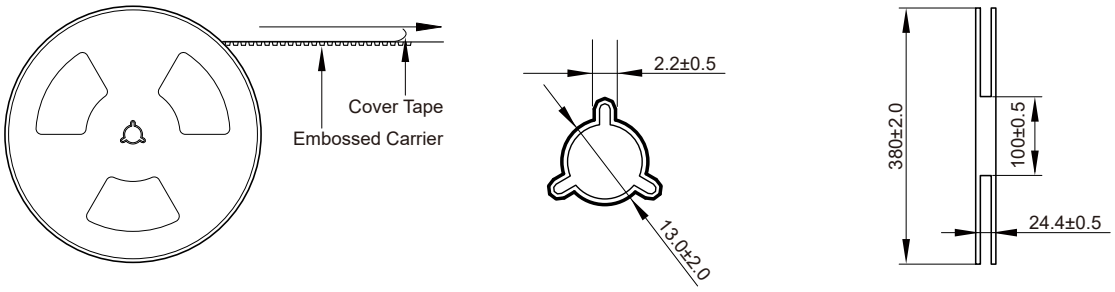
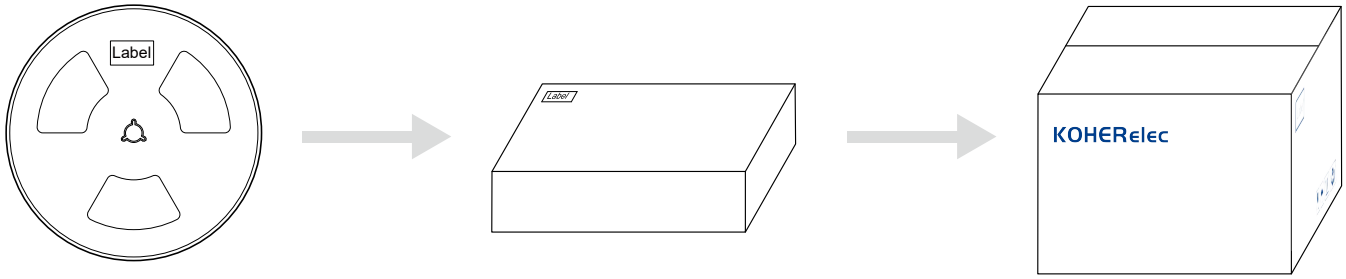
Reel Dimension：[mm]



Packaging Quantity:



500 Pcs/Reel

2 Reel /Inner box(1000 Pcs)

2 Inner box/Carton box(2K Pcs)

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.