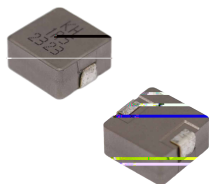




# MDSA Series

## SMD Low Profile High Current Molded Inductor

### Size 1365



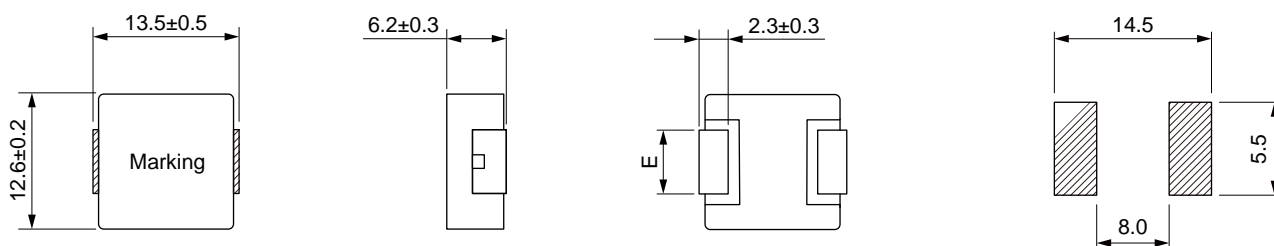
#### FEATURES

- Shielded construction
- Capable of corresponding high frequency.
- Low loss realized with low DCR.
- High performance (Isat) 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: -55 to +155 °C(including self-temperature rise)
- Quantity: 500PCS

#### APPLICATION

- Noise filter for various drive circuitry requiring high temperature operation and peak current handling capability.
- Boost-Converter
- Buck-Converter DC/DC

#### Land Pattern: [mm]



#### Electrical Properties: Dimensions: [mm]

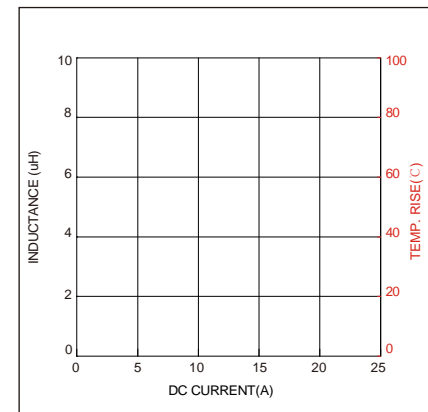
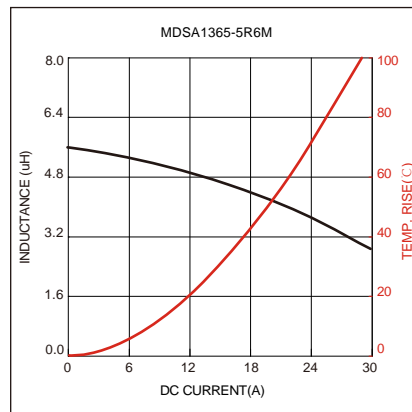
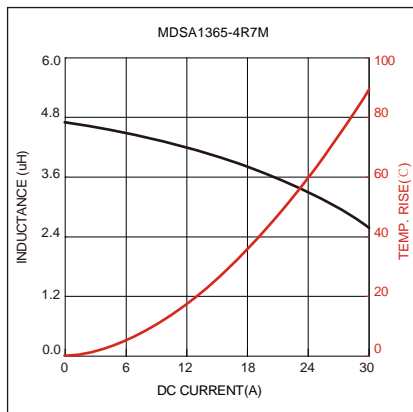
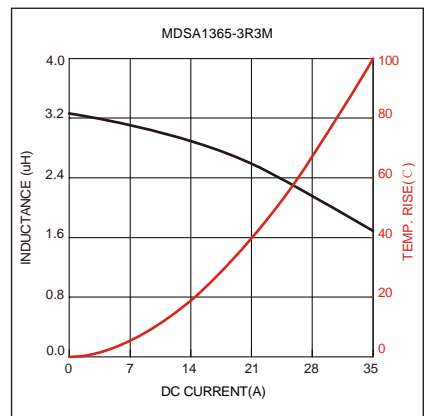
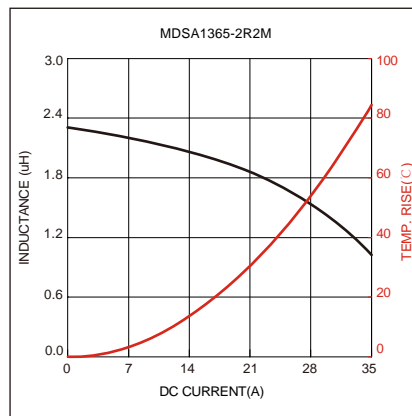
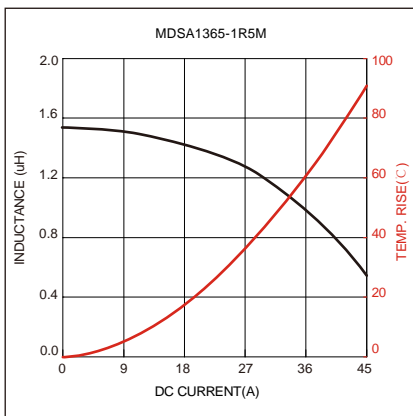
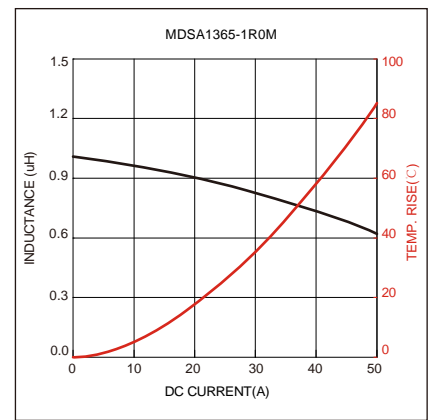
Part No	Inductance @ 100kHz/1V Rise/Current Typ. (μH)	Tolerance Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)	E		
MDSA1365-R47M	0.47	±20%	40.0	40.0	66.0	0.95	1.10	4.7±0.3
MDSA1365-R68M	0.68	±20%	35.0	35.0	54.0	1.40	1.60	4.0±0.3
MDSA1365-1R0M	1.00	±20%	32.0	32.0	44.0	1.60	1.90	4.0±0.3
MDSA1365-1R5M	1.50	±20%	28.0	28.0	34.0	2.30	2.70	4.0±0.3
MDSA1365-2R2M	2.20	±20%	24.0	24.0	28.0	3.90	4.40	4.7±0.3
MDSA1365-3R3M	3.30	±20%	21.0	21.0	26.0	5.50	6.50	4.7±0.3
MDSA1365-4R7M	4.70	±20%	19.0	19.0	24.0	7.20	8.40	4.7±0.3
MDSA1365-5R6M	5.60	±20%	17.5	17.5	22.0	8.80	10.3	4.7±0.3
MDSA1365-6R8M	6.80	±20%	16.0	16.0	20.0	10.2	11.8	4.7±0.3
MDSA1365-8R2M	8.20	±20%	14.5	14.5	18.5	12.5	14.5	4.7±0.3
MDSA1365-100M	10.0	±20%	12.5	12.5	16.5	13.8	16.8	4.7±0.3
MDSA1365-150M	15.0	±20%	10.6	10.6	13.0	23.0	27.0	4.7±0.3

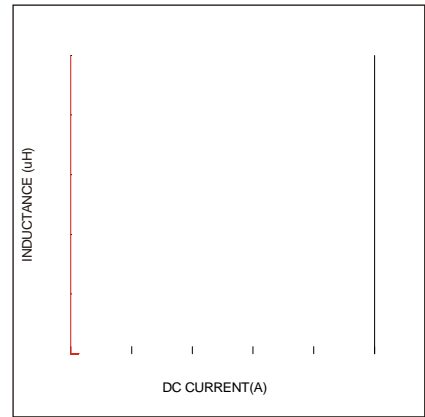
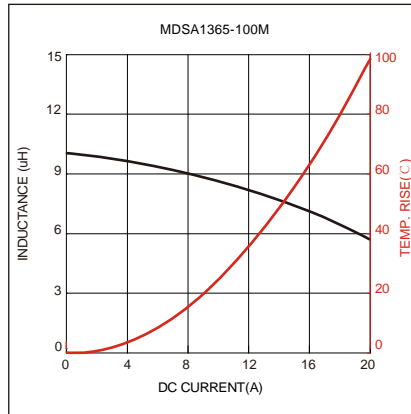


Saturation Current will cause L to drop approximately 30%

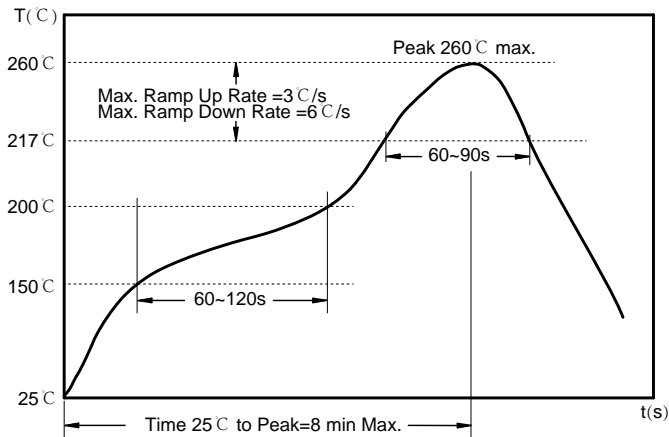
Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

## Typical Electrical Characteristics:





## Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.

Allowed time above 217°C: 60~90 sec.

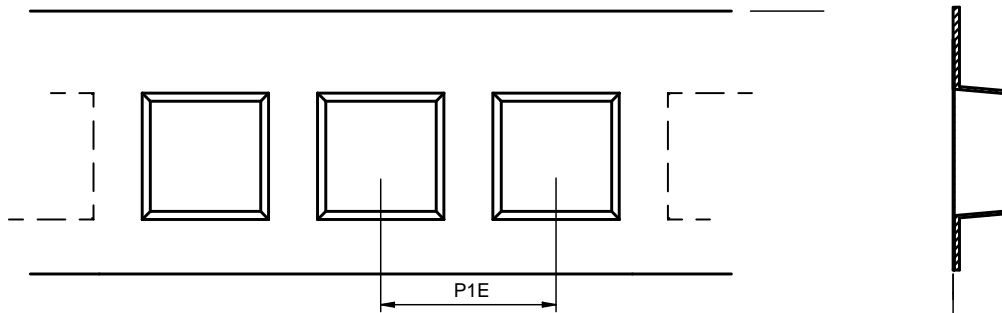
Max temperature: 260°C.

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

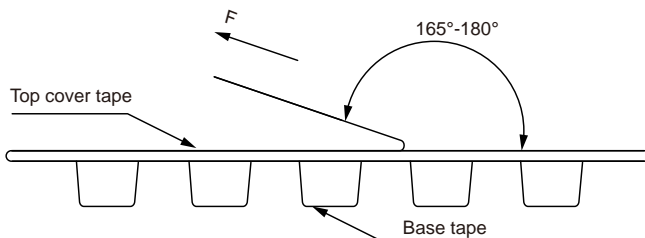
## Packaging Information:

### Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDSA1365	13.1± 0.1	14.0± 0.1	1.5± 0.1	4.0± 0.1	16.0± 0.1	24.0± 0.3	6.8± 0.1	1.75± 0.1	0.50± 0.05

### Peel force of top cover tape:



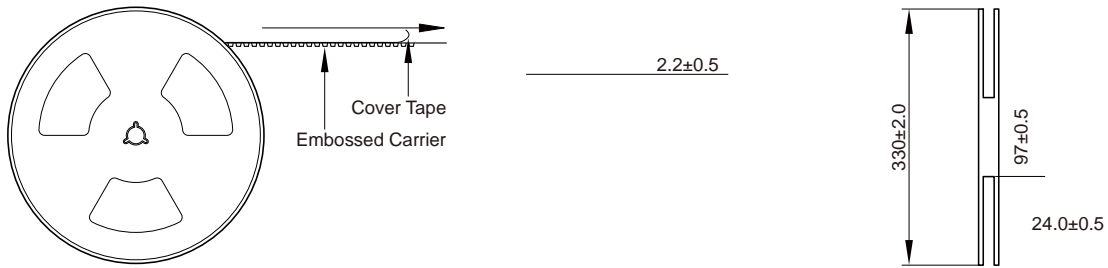
The peel force of top cover tape shall be between 0.1 to 1.3 N

### Product Marking:

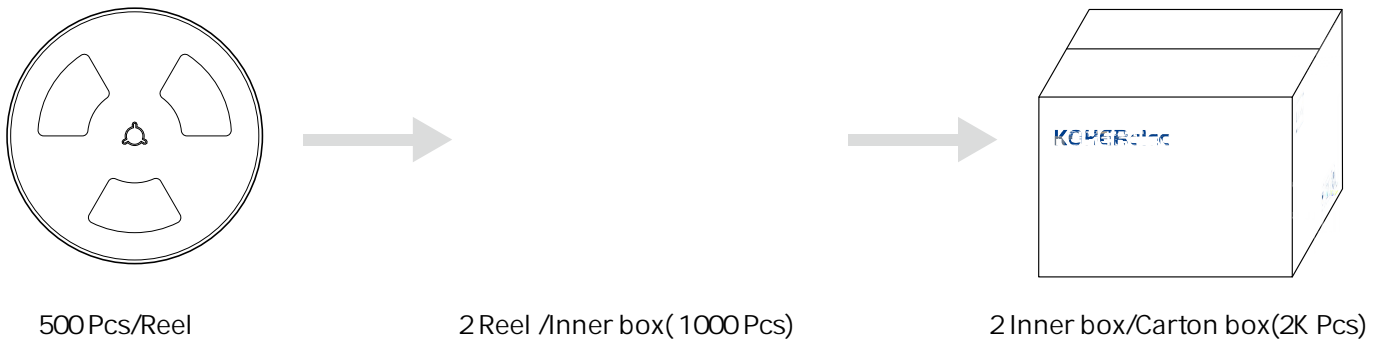
Marking	KH+Printing Inductance)
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### Reel Dimension: [mm]



### 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.
- eskr toilsroducts should belease always to av sure tosmage fullyor cprevperaanyination caut wiby dropp-1.2down 9 1 lp
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#### Operation Instructions:

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