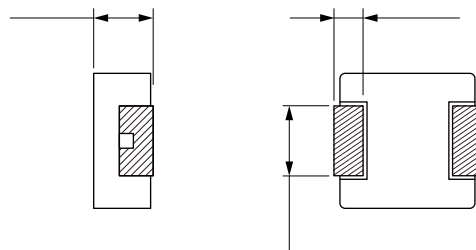


**MDCA Series**  
**SMD Power Inductor**  
**Size 5030**

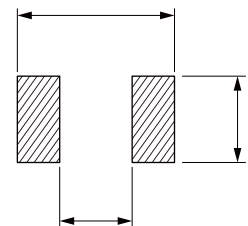
**FEATUERS**

- Carbonyl Powder.
- Compact design.
- High current , low DCR , high e efficiency.
- Very low acoustic noise and very low leakage flux noise.
- High reliability.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +125 °C (including self-temperature rise)
- Quantity:2000pcs

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

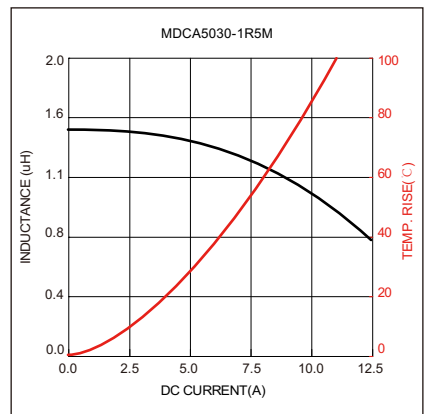
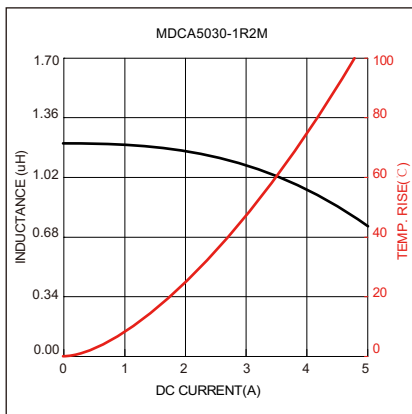
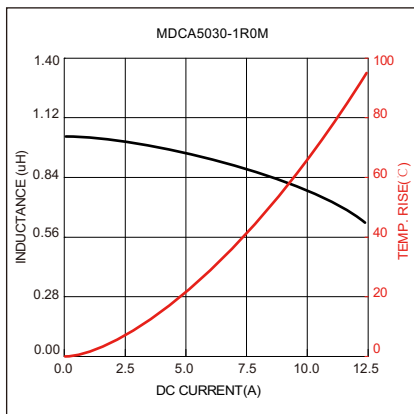
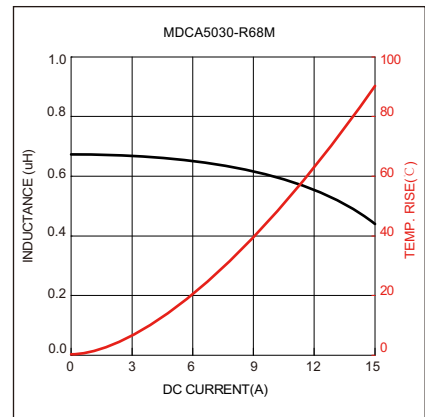
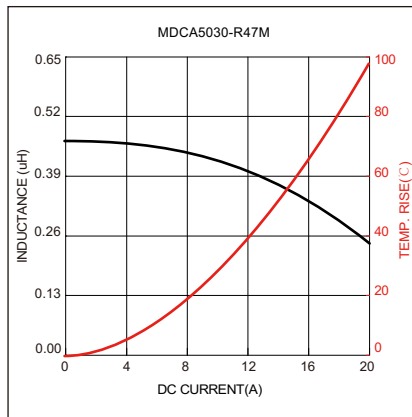
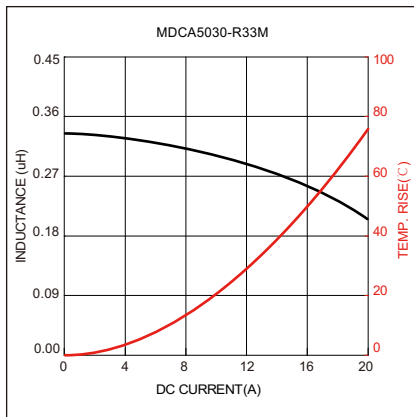
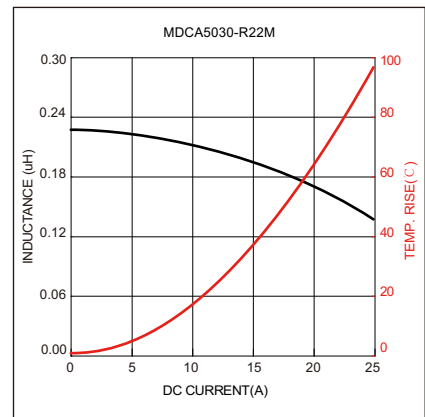
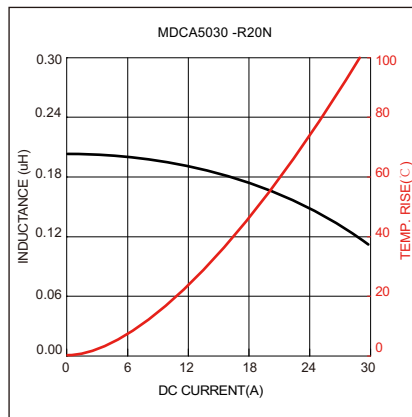
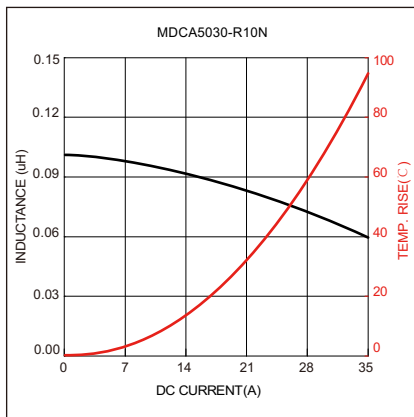
Part No	Inductance @ 100KHz/1V	Tolerance				
MDCA5030-R10N	0.10	±30%	23.0	27.0	2.50	3.00
MDCA5030-R20N	0.20	±30%	16.0	25.0	2.60	3.20
MDCA5030-R22M	0.22	±20%	15.5	21.0	3.70	4.40
MDCA5030-R33M	0.33	±20%	14.0	18.0	4.30	5.00
MDCA5030-R47M	0.47	±20%	12.0	16.0	6.40	7.40
MDCA5030-R68M	0.68	±20%	8.50	14.0	10.0	12.0
MDCA5030-1R0M	1.00	±20%	7.00	11.0	13.0	14.0
MDCA5030-1R2M	1.20	±20%	6.50	11.0	14.0	16.0
MDCA5030-1R5M	1.50	±20%	6.00	10.0	16.0	25.0
MDCA5030-2R2M	2.20	±20%	5.50	9.00	25.0	35.0
MDCA5030-3R3M	3.30	±20%	5.00	8.00	32.0	38.0
MDCA5030-3R6M	3.60	±20%	4.90	7.00	46.0	54.0
MDCA5030-4R7M	4.70	±20%	4.60	6.00	50.0	53.0
MDCA5030-5R6M	5.60	±20%	4.25	4.50	55.0	63.0
MDCA5030-6R8M	6.80	±20%	4.00	4.30	68.0	76.2

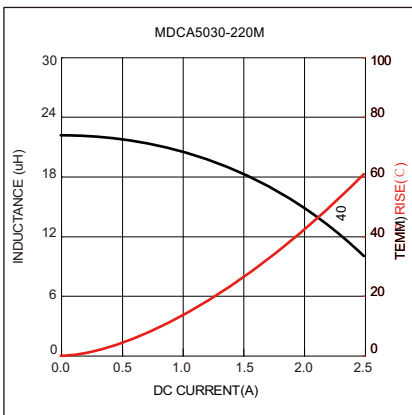
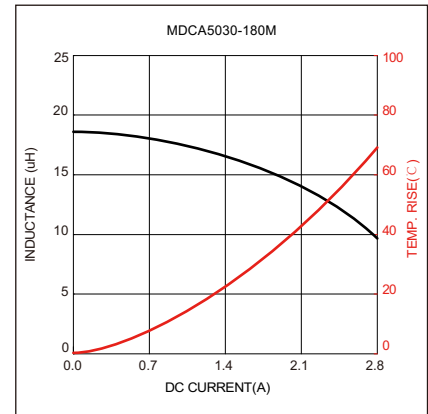
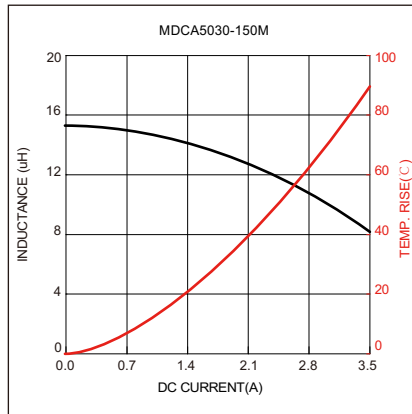
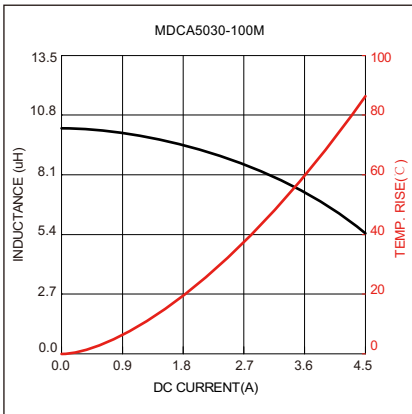
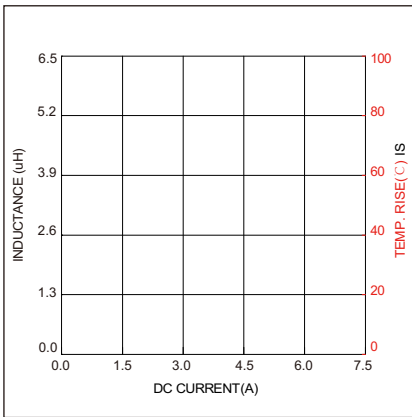
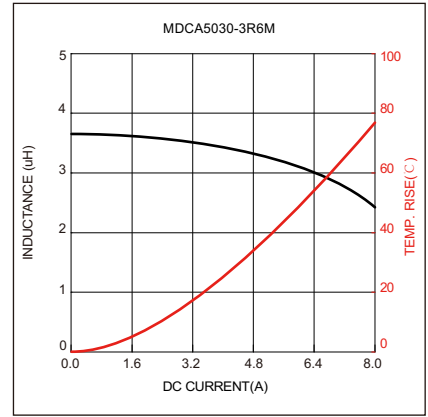
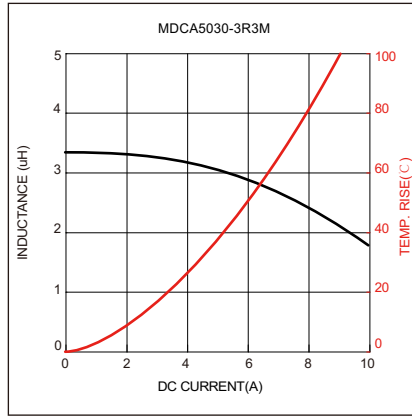
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ.	Current Typ.	DC Resistance Typ.	DC Resistance Max.
MDCA5030-100M	10.0	±20%	2.75	3.50	110	128
MDCA5030-150M	15.0	±20%	2.10	2.60	165	190
MDCA5030-180M	18.0	±20%	2.00	2.30	195	230
MDCA5030-220M	22.0	±20%	1.90	1.70	220	250

Saturation Current will cause L to drop approximately 30%

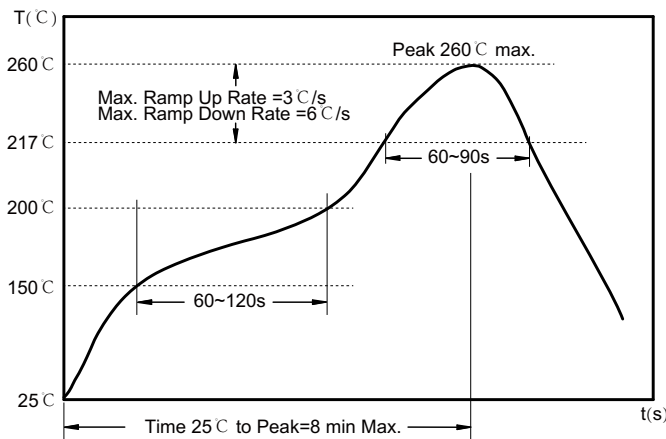
Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

### Typical Electrical Characteristics:





## Soldering Reflow:



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

Allowed time above 217°C : 60~90 sec.

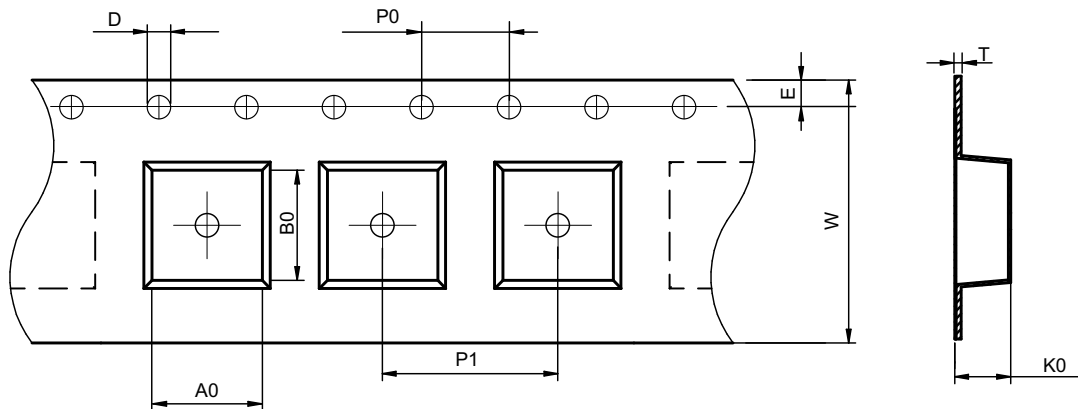
Max temperature: 260°C .

Max time at max temperature: 10 sec.

Allowed Reflow time: 2x max.

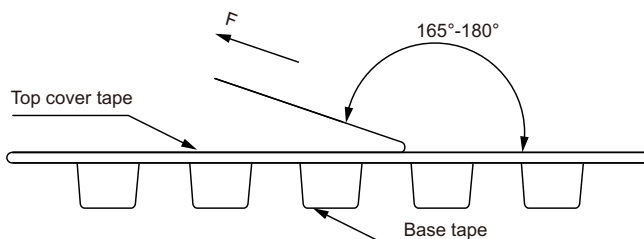
## Packaging Information:

### Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
5030	5.5±0.1	5.9±0.1	1.5±0.1	4.0±0.1	8.0±0.1	12.0±0.3	3.3±0.1	1.75±0.1	0.35±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	K+Printing (Inductance+period)
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