MDCA Series
SMD Power Inductor
Size 1350

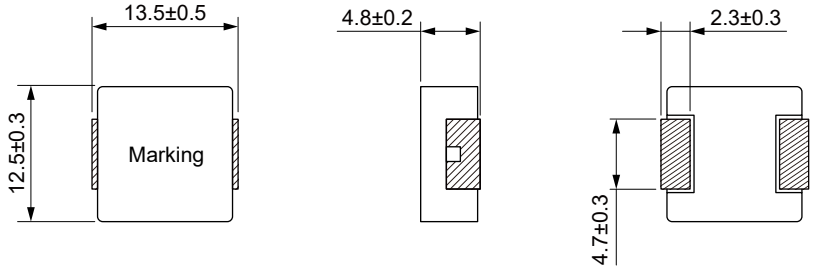
FEATURES

- Shielded construction.
- Capable of corresponding high frequency.
- Low loss realized with low DCR.
- High performance (Isat) realized by Carbonyl Powder.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +125 °C(including self-temperature rise)
- Quantity:500pcs

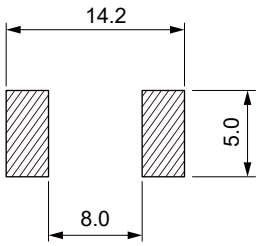
APPLICATION

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

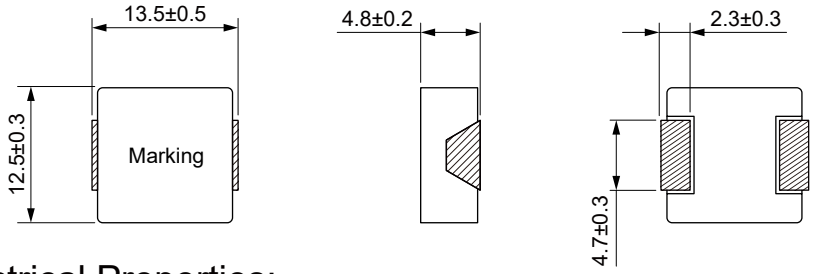
Dimensions: [mm] L＞1.5μH



Land Pattern: [mm]



Dimensions: [mm] L≤1.5μH



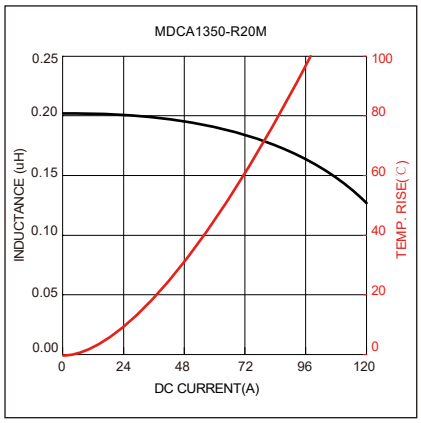
Electrical Properties:

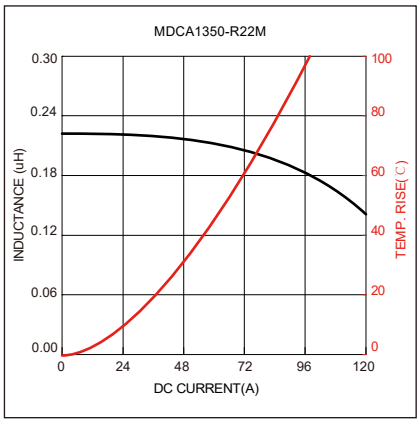
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDCA1350-R20M	0.20	±20%	52.0	110	0.45	0.55
MDCA1350-R22M	0.22	±20%	52.0	110	0.50	0.70
MDCA1350-R33M	0.33	±20%	42.0	80.0	0.70	0.90
MDCA1350-R36M	0.36	±20%	42.0	75.0	0.75	0.95
MDCA1350-R47M	0.47	±20%	38.0	65.0	0.86	1.10

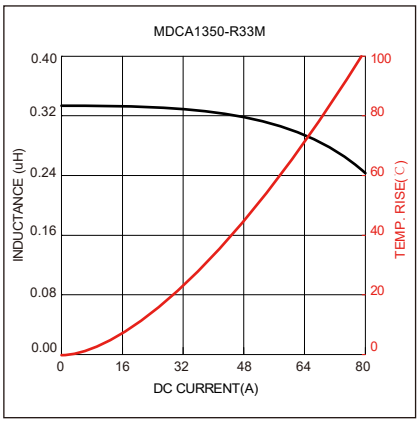
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Saturation Current Typ. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)
MDCA1350-R56M	0.56	±20%	36.0	55.0	1.00	1.50
MDCA1350-R68M	0.68	±20%	34.0	54.0	1.40	1.70
MDCA1350-R82M	0.82	±20%	31.0	52.0	1.70	2.10
MDCA1350-1R0M	1.00	±20%	29.0	50.0	1.85	2.50
MDCA1350-1R5M	1.50	±20%	27.0	48.0	2.80	3.30
MDCA1350-2R2M	2.20	±20%	20.0	32.0	4.20	5.50
MDCA1350-3R3M	3.30	±20%	15.0	32.0	6.80	9.20
MDCA1350-4R7M	4.70	±20%	12.0	27.0	11.4	15.0
MDCA1350-5R6M	5.60	±20%	11.5	22.0	12.3	16.5
MDCA1350-6R8M	6.80	±20%	11.0	21.0	14.5	18.5
MDCA1350-8R2M	8.20	±20%	9.50	18.0	16.8	22.5
MDCA1350-100M	10.0	±20%	9.00	16.0	21.4	25.5
MDCA1350-150M	15.0	±20%	8.20	13.0	32.0	38.0
MDCA1350-220M	22.0	±20%	6.50	10.0	50.0	58.0
MDCA1350-330M	33.0	±20%	5.00	8.00	73.0	88.0
MDCA1350-470M	47.0	±20%	4.00	6.50	100	120

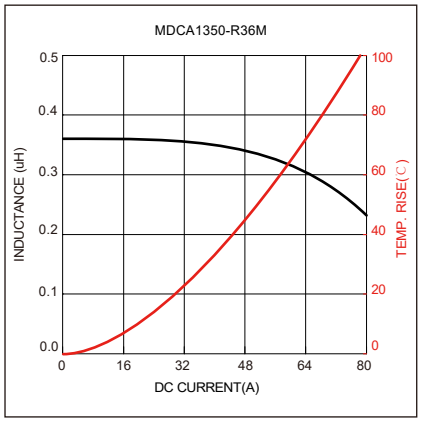
Saturation Current will cause L to drop approximately 30%
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

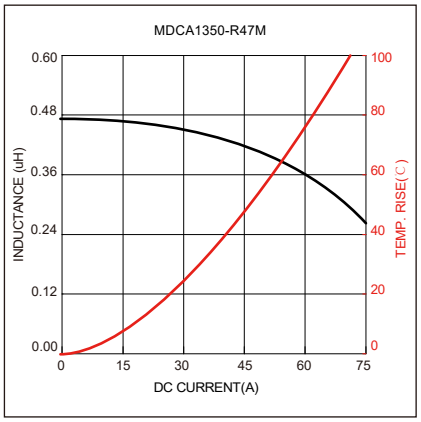
Typical Electrical Characteristics:

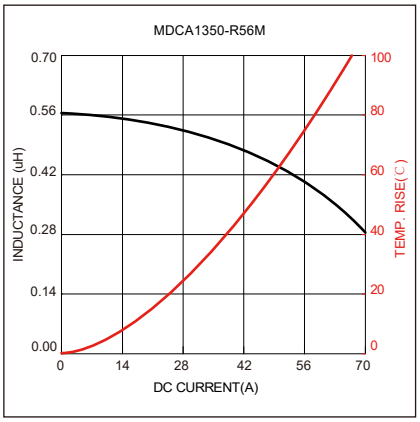


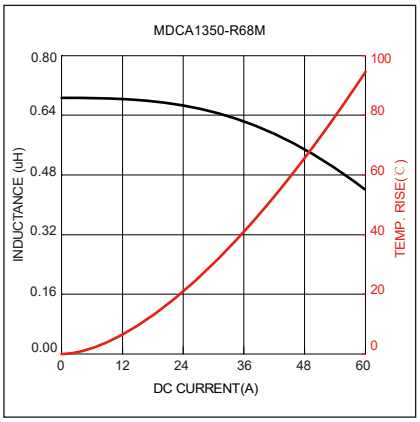


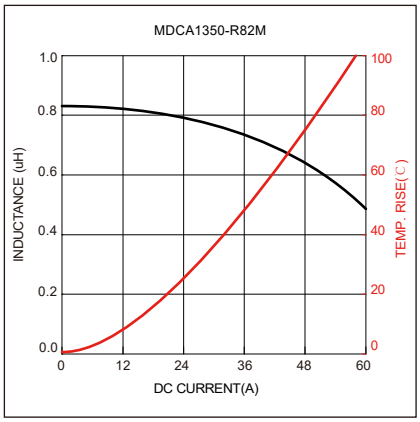


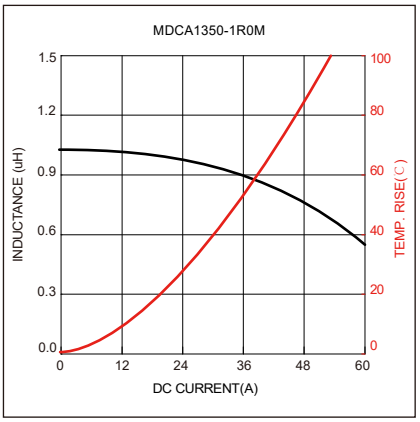


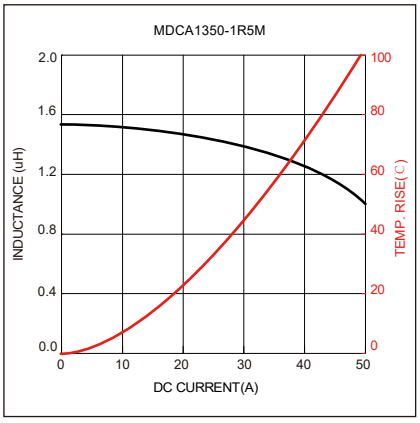


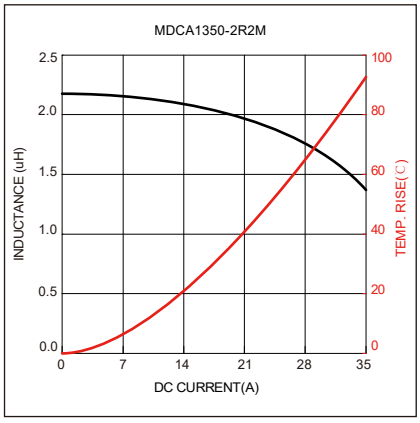


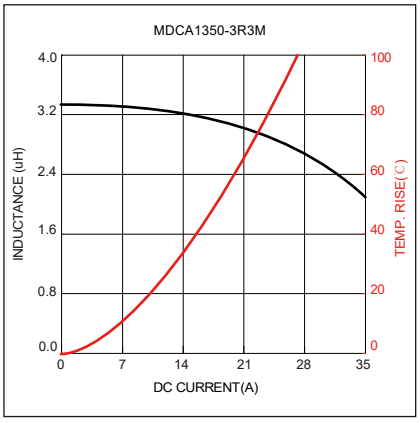


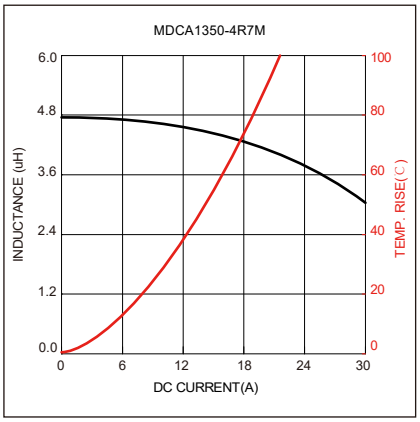


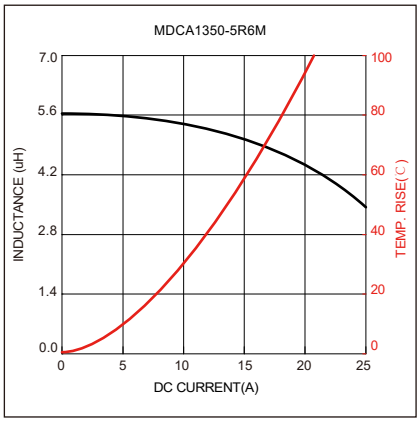


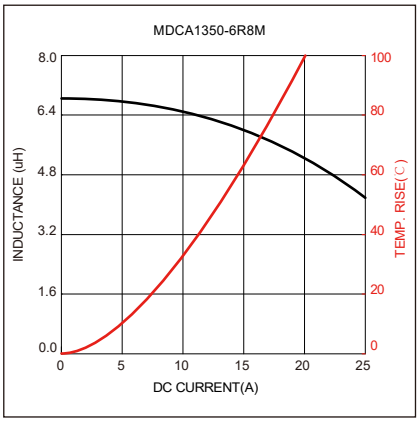


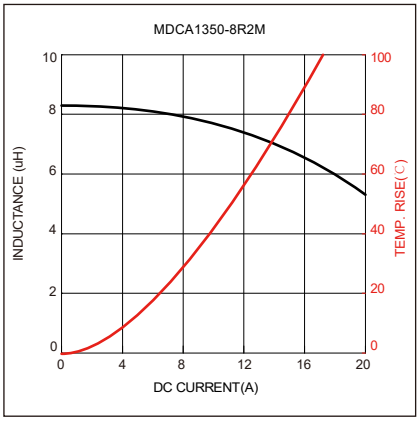


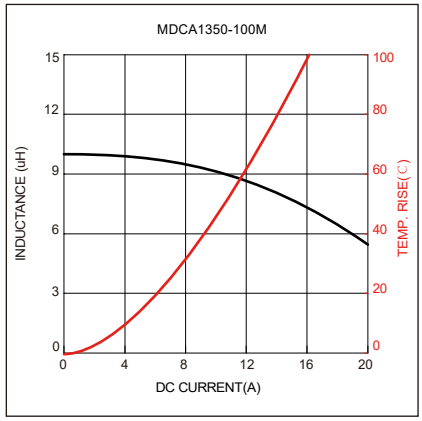


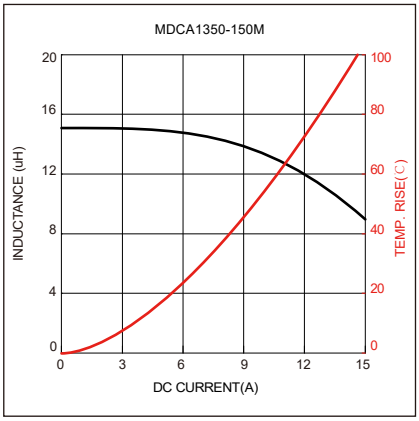












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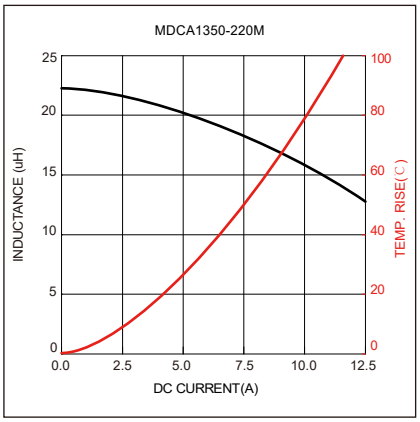
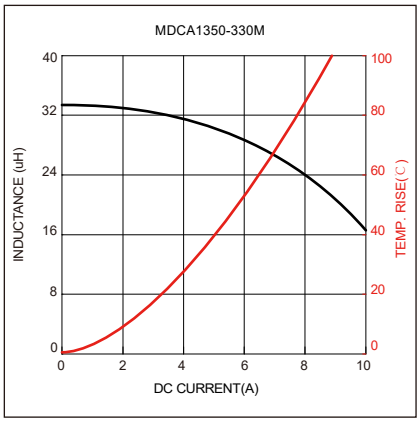
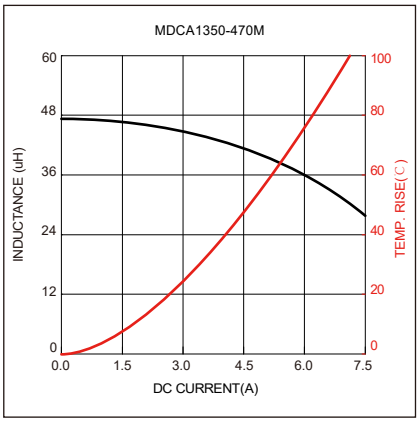

MDCA1350-220M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
25
20
15
10
5
0
100
80
60
40
20
0
0.0
2.5
5.0
7.5
10.0
12.5


MDCA1350-330M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
40
32
24
16
8
0
100
80
60
40
20
0
0
2
4
6
8
10


MDCA1350-470M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
60
48
36
24
12
0
100
80
60
40
20
0
0.0
1.5
3.0
4.5
6.0
7.5