MDCA Series

SMD Power Inductor

Size 4020



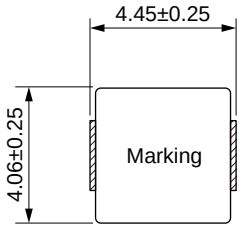
FEATURES

- Shielded construc on.
- 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 construc on.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Opera ng temperature: -55 to +125 °C(including self-temperature rise)
- Quan ty:3000pcs

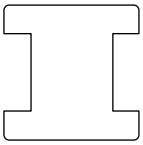
APPLICATION

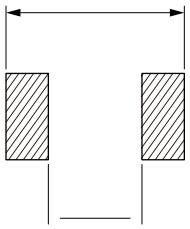
- Headlamps, tail lamps and interior ligh ng
-
- Doors, window li and seat contro
-
-
- In-Vehicle Infotainment and naviga on

Dimensions: [mm]



Land Pattern: [mm]





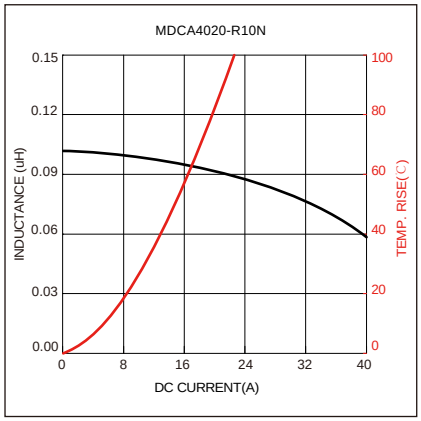
Electrical Properties:

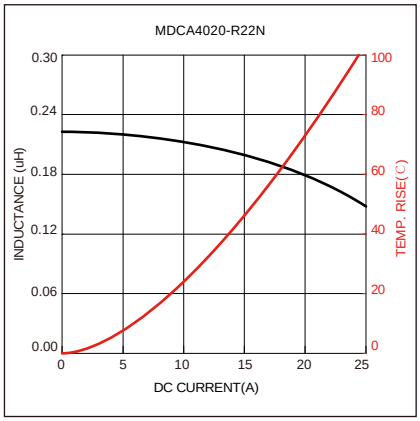
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ.	Current Typ.		
	0.10	±30%	14.0	35.0	3.20	4.0
	0.22	±30%	13.0	24.0	6.60	7.3
MDCA4020-R33M	0.33		10.0	18.0	7.80	8.6
MDCA4020-R56M	0.47		8.00	12.0	11.2	
	0.56		7.30	10.0	13.5	
	0.68		7.00	10.0	16.0	
	1.00		5.00	8.50	22.0	
MDCA4020-1R5M	1.50		4.50	7.00	34.8	
	2.20		4.00	6.00	51.0	
MDCA4020-3R3M	3.30		3.50	4.00	69.0	
	4.70		2.60	3.50	95.0	105
MDCA4020-5R6M	5.60		2.20	3.00		125
	6.80		2.10	2.80	150	
	8.20		2.00	2.50	158	

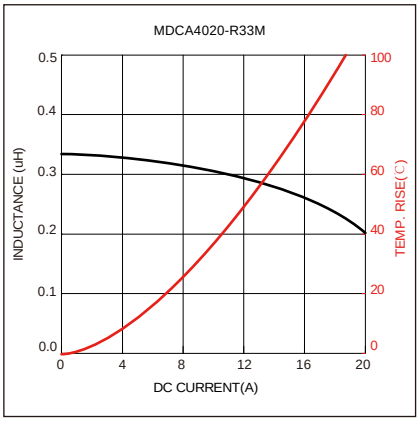
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ.	Current Typ.	DC Resistance Typ.	DC Resistance Max.
	10.0		1.80	2.30	215	243
MDCA4020-150M	15.0		1.50	1.90	325	374
	22.0		1.20	1.40		500

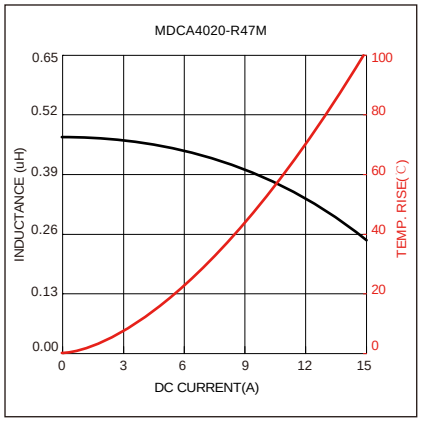
Saturation Current will cause L to drop approximately 30%
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

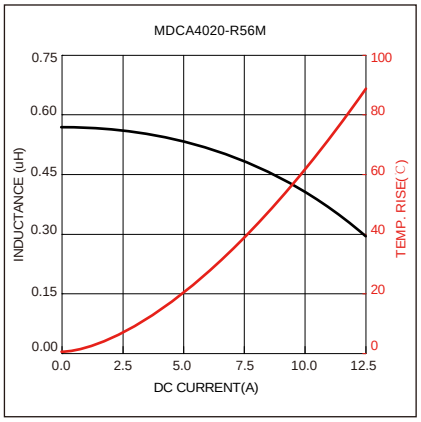
Typical Electrical Characteristics:

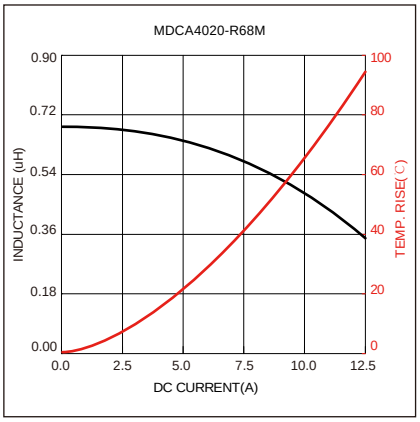


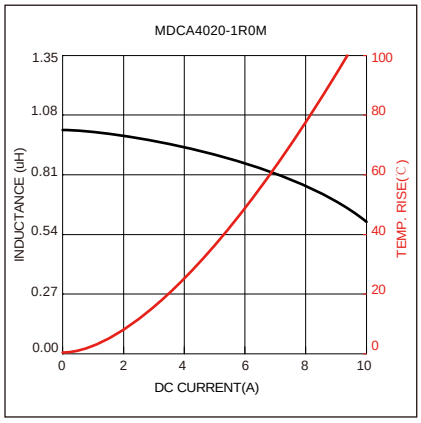


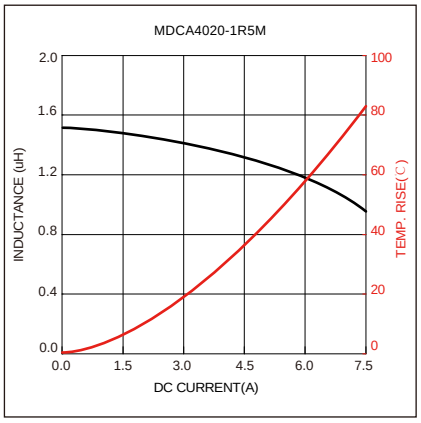


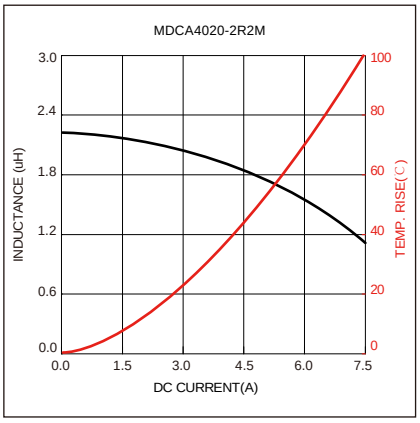


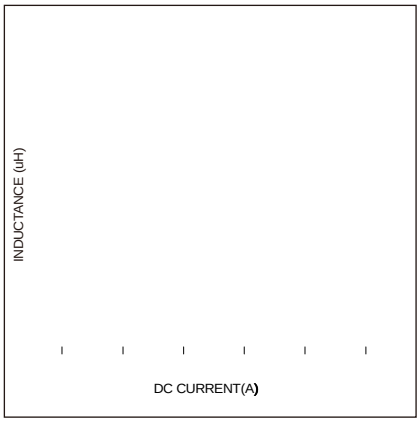








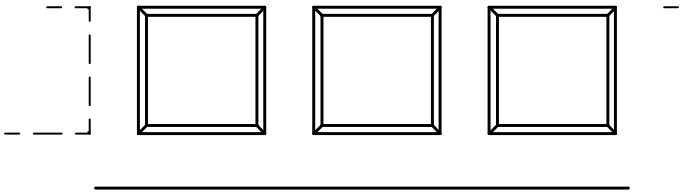



INDUCTANCE (uH)
DC CURRENT(A)

Soldering Reflow:

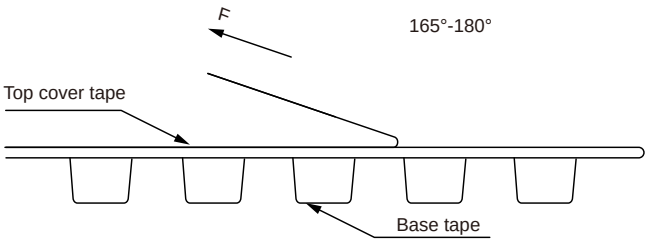
Packaging Information:

Tape Dimension:



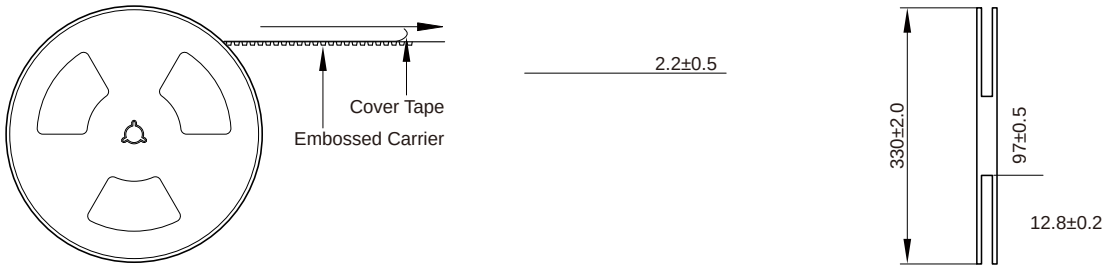
Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDCA4020	4.5±0.1	4.85±0.1	1.5±0.1	4.0±0.1	8.0±0.1	12±0.3	2.3±0.1	1.75±0.1	0.35±0.05

Peel force of top cover tape:



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

Reel Dimension：[mm]



Packaging Quantity:



3000 Pcs/Reel　　3 Reel /Inner box(9000 Pcs)　　3 Inner box/Carton box(27K Pcs)

Cautions and Warnings:

Storage Conditions：

- [illegible]

Operation Instructions: