

# MDCA Series

## SMD Power Inductor

### Size 4020

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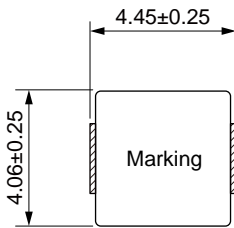
#### FEATURES

- 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: 3000pcs

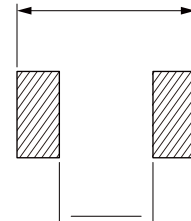
#### APPLICATION

- Headlamps, tail lamps and interior lighting
- Doors, window lift and seat control
- In-Vehicle Infotainment and navigation

#### Dimensions: [mm]



#### Land Pattern: [mm]



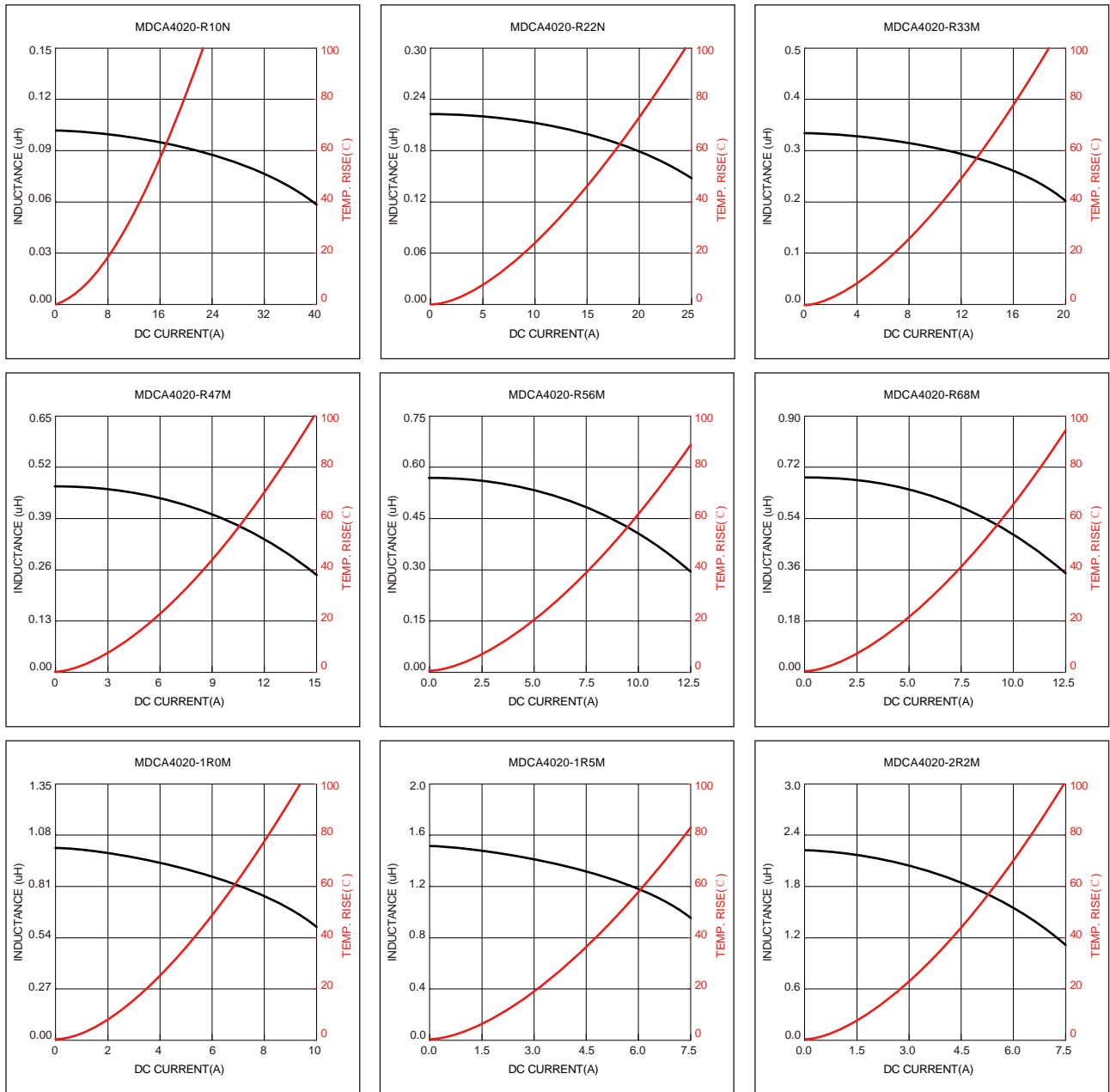
#### Electrical Properties:

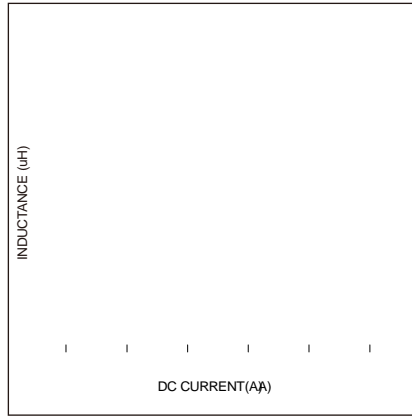
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ.	Current Typ.		
MDCA4020-R010M	0.10	±30%	14.0	35.0	3.20	4.0
MDCA4020-R022M	0.22	±30%	13.0	24.0	6.60	7.3
MDCA4020-R033M	0.33	±30%	10.0	18.0	7.80	8.6
MDCA4020-R047M	0.47	±30%	8.00	12.0	11.2	12.5
MDCA4020-R056M	0.56	±30%	7.30	10.0	13.5	15.0
MDCA4020-R068M	0.68	±30%	7.00	10.0	16.0	18.0
MDCA4020-R100M	1.00	±30%	5.00	8.50	22.0	25.0
MDCA4020-R150M	1.50	±30%	4.50	7.00	34.8	40.0
MDCA4020-R220M	2.20	±30%	4.00	6.00	51.0	60.0
MDCA4020-R330M	3.30	±30%	3.50	4.00	69.0	80.0
MDCA4020-R470M	4.70	±30%	2.60	3.50	95.0	110.0
MDCA4020-R560M	5.60	±30%	2.20	3.00	125.0	150.0
MDCA4020-R680M	6.80	±30%	2.10	2.80	150.0	180.0
MDCA4020-R820M	8.20	±30%	2.00	2.50	158.0	200.0

Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ.	Current Typ.	DC Resistance Typ.	DC Resistance Max.
MDCA4020-R10N	10.0	±10%	1.80	2.30	215	243
MDCA4020-150M	15.0	±10%	1.50	1.90	325	374
MDCA4020-R22N	22.0	±10%	1.20	1.40	500	500

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:

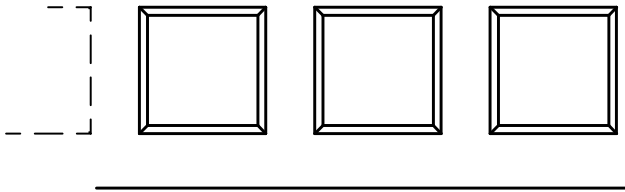




## Soldering Reflow:

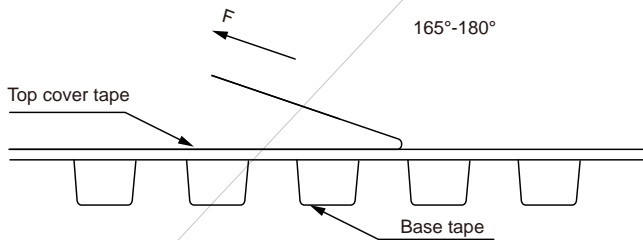
## Packaging Information:

### Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	F (mm)	F1 (mm)
MDCA4020	4.5±0.1	4.85±0.1	1.5±0.1	4.0±0.1	8.0	0.35±0.05

### Peel force of top cover tape:



The peel force of top cover tape shall be between 0.1 t

