



MDCA Series

SMD Power Inductor

Size 4020

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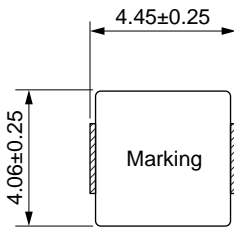
FEATURES

- 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

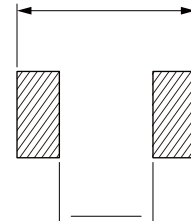
APPLICATION

- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- 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-R10N	0.10	±30%	14.0	35.0	3.20	4.0
MDCA4020-R22N	0.22	±30%	13.0	24.0	6.60	7.3
MDCA4020-R33M	0.33	±20%	10.0	18.0	7.80	8.6
MDCA4020-R47M	0.47	±20%	8.00	12.0	11.2	14
MDCA4020-R56M	0.56	±20%	7.30	10.0	13.5	16
MDCA4020-R68M	0.68	±20%	7.00	10.0	16.0	19
MDCA4020-1R0M	1.00	±20%	5.00	8.50	22.0	27
MDCA4020-1R5M	1.50	±20%	4.50	7.00	34.8	42
MDCA4020-2R2M	2.20	±20%	4.00	6.00	51.0	61
MDCA4020-3R3M	3.30	±20%	3.50	4.00	69.0	76
MDCA4020-4R7M	4.70	±20%	2.60	3.50	95.0	105
MDCA4020-5R6M	5.60	±20%	2.20	3.00	112	125
MDCA4020-6R8M	6.80	±20%	2.10	2.80	150	172
MDCA4020-8R2M	8.20	±20%	2.00	2.50	158	180

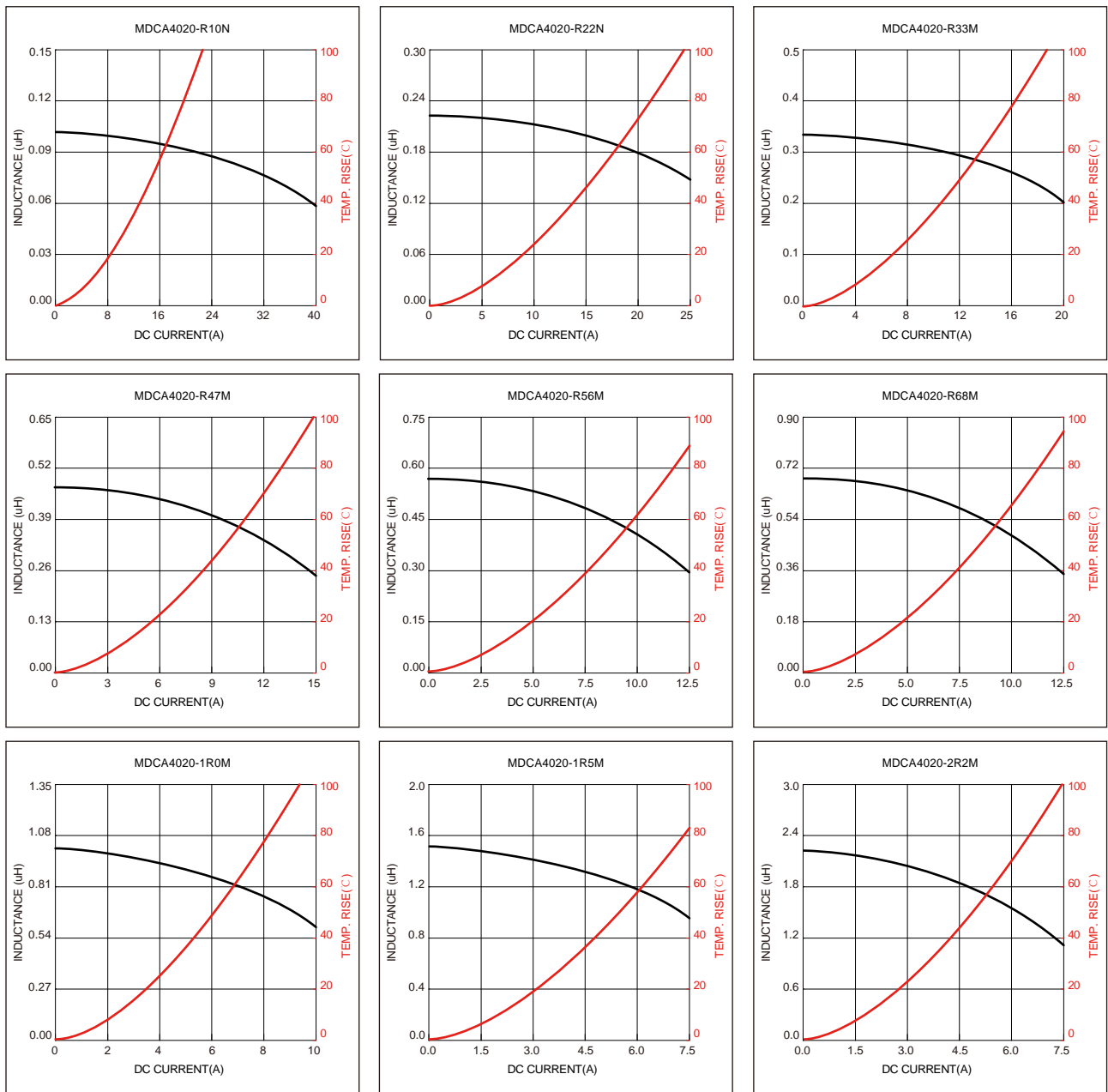


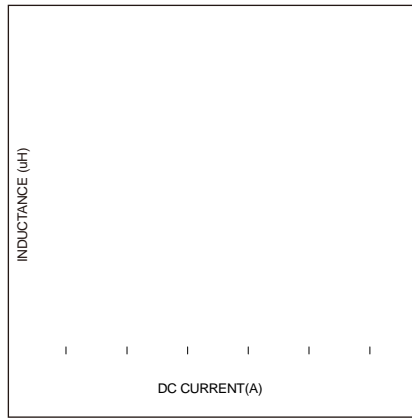
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ.	Current Typ.	DC Resistance Typ.	DC Resistance Max.
MDCA4020-100M	10.0	±20%	1.80	2.30	215	243
MDCA4020-150M	15.0	±20%	1.50	1.90	325	374
MDCA4020-220M	22.0	±20%	1.20	1.40	470	500

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:

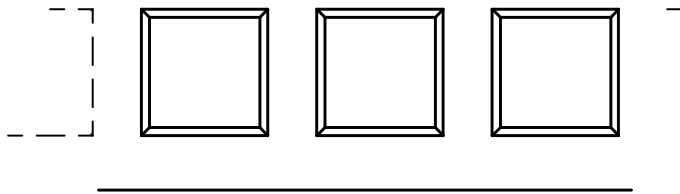




Soldering Reflow:

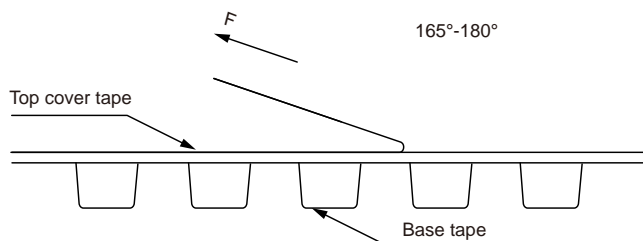
Packaging Information:

Tape Dimension:



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	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

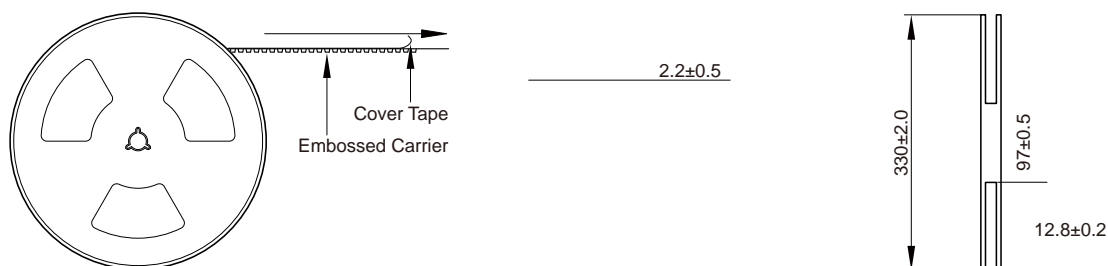
Peel force of top cover tape:



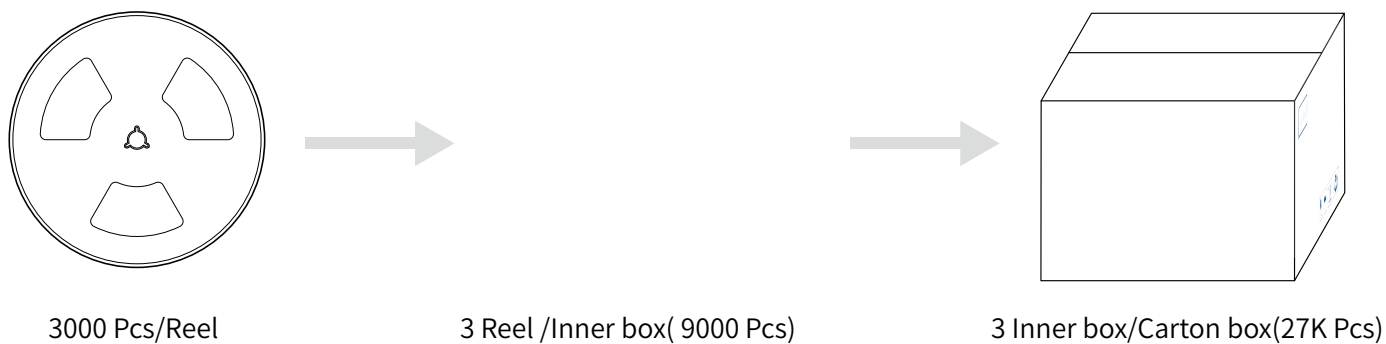
The peel force of top cover tape shall be between 0.1 to 1.3 N



Reel Dimension: [mm]



Packaging Quantity:



Cautions and Warnings:

Storage Conditions :

- The storage period is within 12 months after the completion of proompletion of proompletion of proompletoompletoo.2580
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Operation Instructions:

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