MDSA Series

SMD Low Profile High Current Molded Inductor

Size 4020



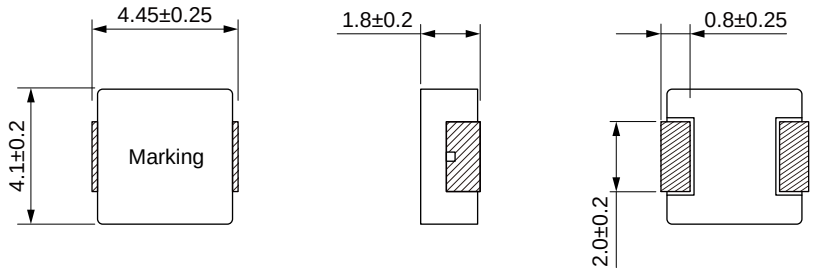
FEATURES

- Shielded construc on.
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construc on.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified.
- Opera ng temperature: -55 to +155 °C(including self-temperature rise)
- Meet MSL level1, refer to J-STD-020.
- Quan ty: 3000PCS

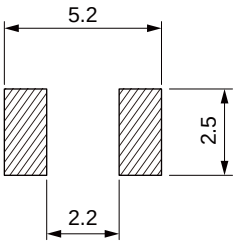
APPLICATION

- Headlamps, tail lamps and interior ligh ng
- HVAC
- Doors, window li and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and naviga on

Dimensions: [mm]



Land Pattern: [mm]

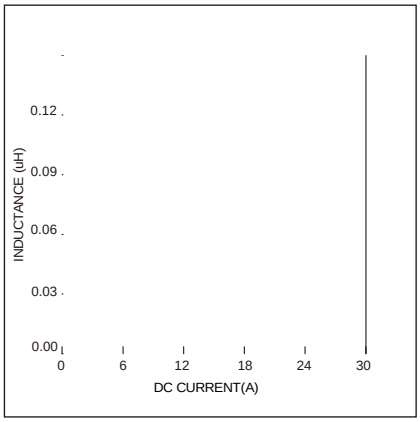


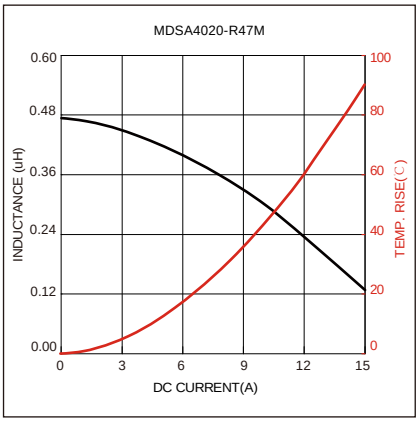
Electrical Properties:

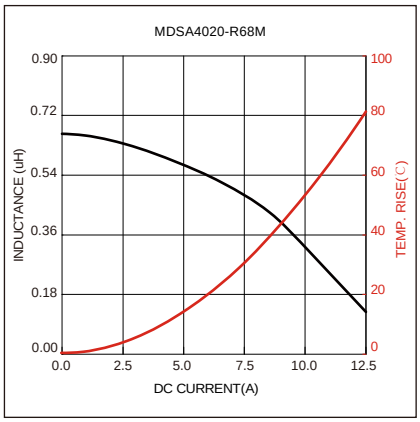
Part No	Inductance @100KHz/1V	Tolerance	Temperature Rise Current Typ.	Temperature Rise Current Max.	Current Typ.	Current Max.	DC Resistance Typ.	DC Resistance Max.
MDSA4020-R10M	0.10	±20%	16.0	13.5	26.0	21.1	2.93	3.23
MDSA4020-R22M	0.22	±20%	14.0	12.0	15.0	12.5	4.85	5.56
MDSA4020-R47M	0.47	±20%	10.0	8.64	9.00	7.70	9.60	11.1
MDSA4020-R68M	0.68	±20%	9.00	7.68	7.60	6.35	11.7	13.6
MDSA4020-1R0M	1.00	±20%	7.50	6.24	5.50	4.80	19.2	22.2
MDSA4020-1R5M	1.50	±20%	6.70	5.57	5.20	4.60	27.3	31.3
MDSA4020-2R2M	2.20	±20%	5.50	4.80	4.50	3.85	41.4	48.5
MDSA4020-3R3M	3.30	±20%	4.50	3.35	3.10	2.60	65.7	75.8
MDSA4020-4R7M	4.70	±20%	3.80	3.10	2.80	2.40	84.8	96.0

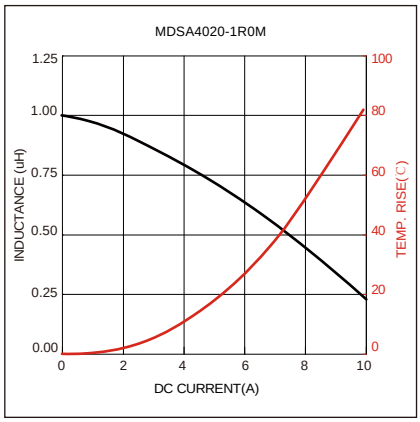
Saturation Current will cause L to drop approximately 30%
Temperature Rise Current: The actual value of DC current when the temperature rise is △T=40°C

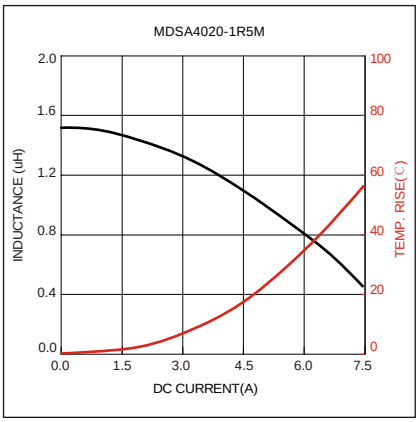
Typical Electrical Characteristics:

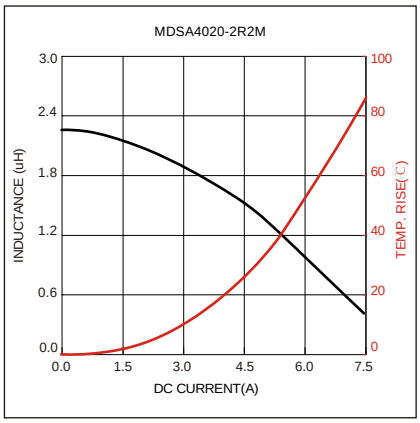


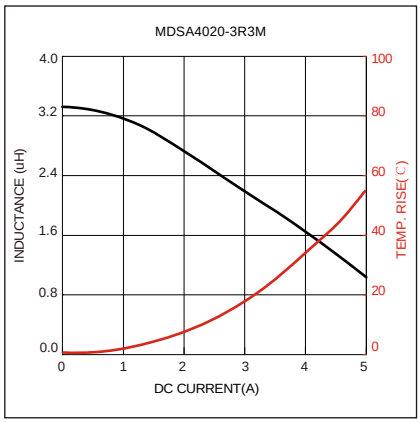


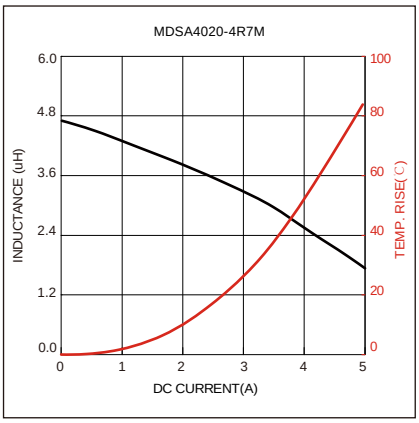


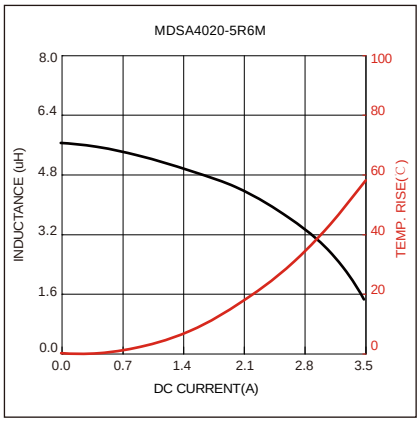


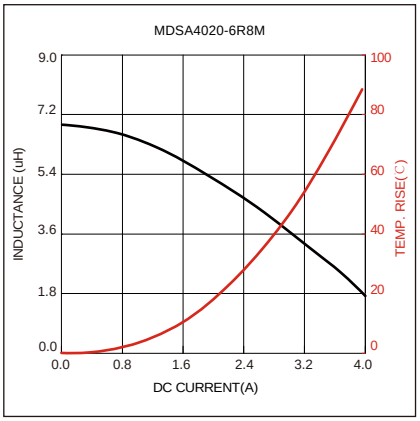


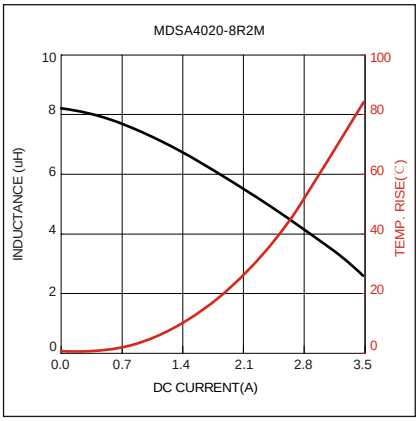


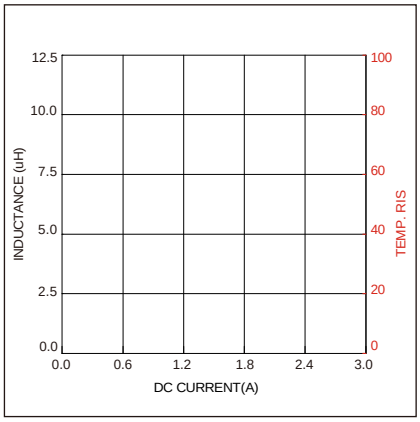





MDSA4020-5R6M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
8.0
6.4
4.8
3.2
1.6
0.0
100
80
60
40
20
0
0.0
0.7
1.4
2.1
2.8
3.5


MDSA4020-6R8M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
9.0
7.2
5.4
3.6
1.8
0.0
100
80
60
40
20
0
0.0
0.8
1.6
2.4
3.2
4.0


MDSA4020-8R2M
INDUCTANCE (uH)
TEMP. RISE(℃)
DC CURRENT(A)
10
8
6
4
2
0
100
80
60
40
20
0
0.0
0.7
1.4
2.1
2.8
3.5


INDUCTANCE (uH)
TEMP. RIS
DC CURRENT(A)
12.5
10.0
7.5
5.0
2.5
0.0
100
80
60
40
20
0
0.0
0.6
1.2
1.8
2.4
3.0

Soldering Reflow:

Packaging Information:

Tape Dimension：

Peel force of top cover tape:

