

MDSA Series

SMD Low Profile High Current Molded Inductor

Size 1040

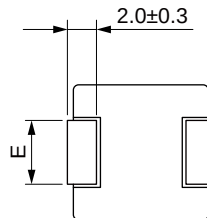
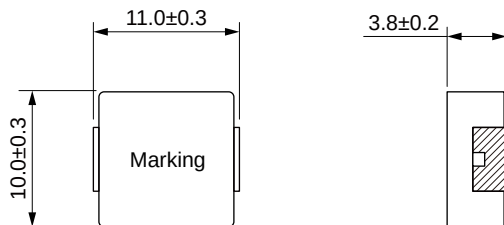
FEATURES

- Shielded construction
- 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 construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C(including self-temperature rise)
- Quantity: 500PCS

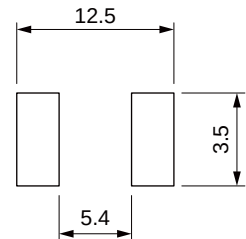
APPLICATION

- Noise filter for various drive circuitry requiring high temp. operation and peak current handling capability.
- Boost-Converter
- Buck-Converter DC/DC

Dimensions: [mm]



Land Pattern: [mm]



Electrical Properties:

Part No		Tolerance	Temperature Rise Current Typ. (A)	Current Typ. (A)	DC Resistance Typ.	DC Resistance Max.	E
MDSA1040-R15N		±30%	43.8	81.9	0.51	0.60	3.0±0.3
MDSA1040-R22M		±20%	35.5	69.6	0.73	0.84	3.0±0.3
MDSA1040-R36M		±20%	33.0	50.8	1.08	1.20	3.0±0.3
MDSA1040-R47M		±20%	31.9	45.7	1.30	1.51	3.0±0.3
MDSA1040-R56M		±20%	24.8	34.0	1.62	1.80	2.5±0.3
MDSA1040-R68M		±20%	22.9	30.8	1.91	2.22	2.5±0.3
MDSA1040-1R0M		±20%	20.0	28.8	2.90	3.26	2.5±0.3
		±20%	17.4	26.0	3.73	4.21	2.5±0.3
		±20%	16.4	22.7	5.11	5.70	3.0±0.3

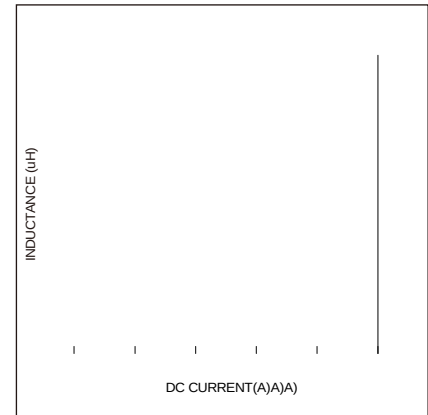
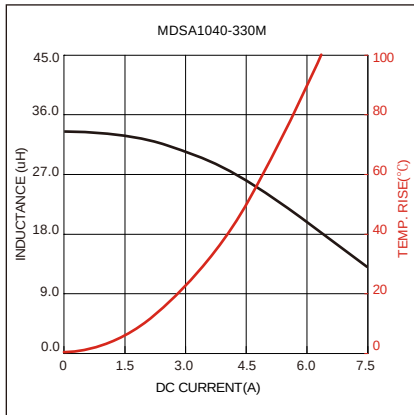
Part No	Inductance @ 100KHz/1V	Tolerance	Temperature Rise Current Typ. (A)	Current Typ. (A)	DC Resistance Typ.	DC Resistance Max.	E
MDSA1040-2R2M		±20%		19.9	5.83	6.72	3.0±0.3
MDSA1040-3R3M		±20%		17.4	10.5	12.0	3.0±0.3
MDSA1040-4R7M		±20%		15.0	15.9	19.0	3.0±0.3
MDSA1040-5R6M		±20%		14.0	19.2	22.9	3.0±0.3
MDSA1040-6R8M		±20%		12.0	22.1	24.6	3.0±0.3
MDSA1040-8R2M		±20%		9.48	25.0	28.1	3.0±0.3
MDSA1040-100M		±20%		8.58	27.1	30.2	3.0±0.3
MDSA1040-150M		±20%		6.99	41.2	45.1	3.0±0.3
MDSA1040-220M		±20%		6.17	58.0	66.0	3.0±0.3
MDSA1040-330M		±20%		5.48	84.0	91.4	3.0±0.3
MDSA1040-470M		±20%		4.00	125.5	143.0	3.0±0.3
MDSA1040-680M		±20%		3.19	192.0	210.2	3.0±0.3

Saturation Current will cause L to drop approximately 30%

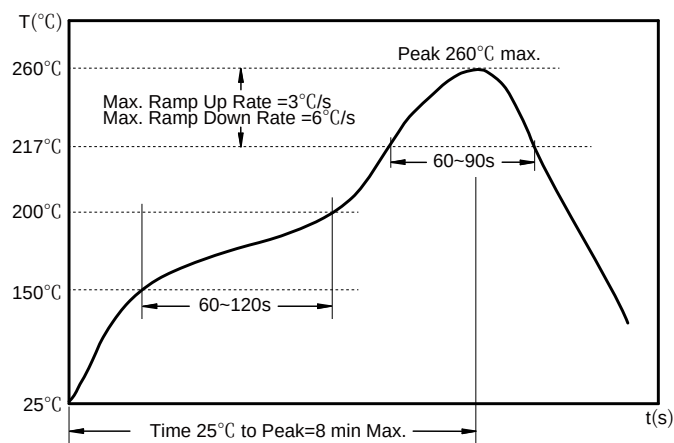
Temperature Rise Current: The actual value of DC current when the temperature rise is $\Delta T=40^{\circ}\text{C}$

Typical Electrical Characteristics:





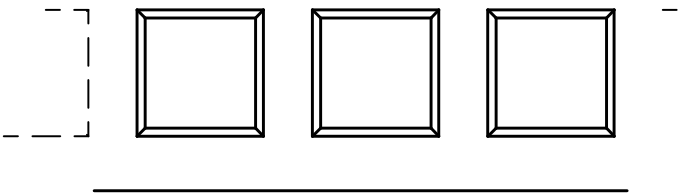
Soldering Reflow:



Preheat condition: 150 ~200°C/ 60~120 sec.
Allowed time above 217°C: 60~90 sec.
Max temperature: 260°C.
Max time at max temperature: 10 sec.
Allowed Reflow time: 2x max.

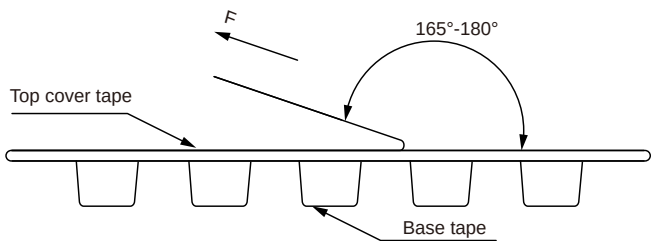
Packaging Information:

Tape Dimension :



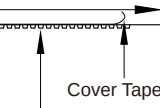
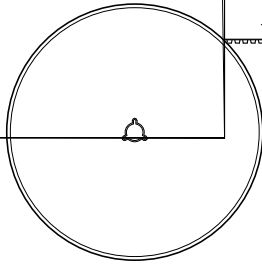
Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)B0
KBQ?/.2.	/,2®.,/	//,4®.,/	/,3®.,/	2,.®.,/	/4,.®.,/	02,.®.,1	2,1®.,/	/,53®.,/	.,13®.,.3

Peel force of top cover tape:



R f c nccj dmpac md rmn amtcp r nc qf jj `c `cruccl .,/ rm /,1 L

Reel Dimension : [mm]



Embossed Carrier $330 \pm .305.08 \pm .155.2 \pm .1597 \pm .15$

Packaging Quantity: