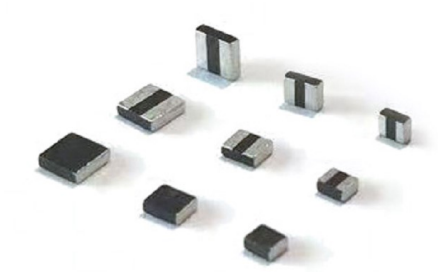
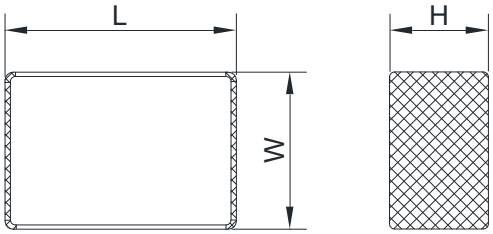
Product Outline

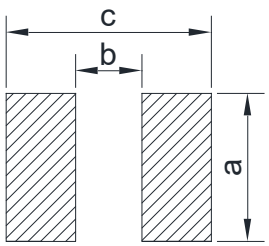


- Alloy powder molding DC-DC Converter inductors.
- High saturation current, low loss, low DCR, high efficiency.
- Ultra low buzz noise, due to composite construction.
- Good magnetic shield performance and small parasitic capacitance.
- It is widely used in smart phone, 5G communications, security device, internet of things.
- RoHS compliant.

Dimensions



Recommended Land Patterns



Unit：mm

Type	L	W	H	D	E	a	b	c	Packaging (pcs/reel)
MLA201610	2.0±0.2	1.6±0.2	1.0 Max.	0.5±0.3	1.0±0.3	1.8	0.8	2.4	3000
MLA201612	2.0±0.2	1.6±0.2	1.2 Max.	0.5±0.3	1.0±0.3	1.8	0.8	2.4	3000
MLA252010	2.5±0.2	2.0±0.2	1.0 Max.	0.7±0.3	1.1±0.3	2.3	0.9	2.8	3000
MLA252012	2.5±0.2	2.0±0.2	1.2 Max.	0.7±0.3	1.1±0.3	2.3	0.9	2.8	3000

Dimensions without tolerance are typical.

Product Identification

MLA	201612	S	-	3R3	M
(1)	(2)	(3)		(4)	(5)

(1) Product Series No.

(2) Dimension symbol:

201612=2.0 x 1.6 x 1.2mm (L x W x H)

(3) Internal Control Code

(4) Inductance value: 3R3=3.3uH

(5) Tolerance:

K=±10% L=±15% M=±20% P=±25% N=±30%

MLA201610 Electrical Characteristics(at 25℃)

Part Number	Inductance ① (uH)	Inductance Tolerance	DCR ② (mΩ) Max.	DCR ② (mΩ) Typ.	Isat ③ (A) Max.	Isat ③ (A) Typ.	Irms ④ (A) Max.	Irms ④ (A) Typ.
MLA201610H-R47M	0.47	±20%	28.0	23.0	5.00	5.50	4.50	5.00
MLA201610H-1R0M	1.0	±20%	57.0	50.0	4.00	4.50	3.60	4.00
MLA201610H-2R2M	2.2	±20%	125	110	2.80	3.20	2.50	3.00
MLA201610H-3R3M	3.3	±20%	175	155	2.20	2.40	2.00	2.20
MLA201610S-R47M	0.47	±20%	35.0	28.0	4.80	5.20	4.30	4.70
MLA201610S-1R0M	1.0	±20%	70.0	60.0	3.50	3.80	3.10	3.50
MLA201610S-2R2M	2.2	±20%	140	125	2.40	2.90	2.10	2.60
MLA201610S-3R3M	3.3	±20%	195	175	2.00	2.20	1.80	2.10
MLA201610L-R47M	0.47	±20%	40.0	35.0	4.50	4.90	3.50	4.00
MLA201610L-1R0M	1.0	±20%	80.0	70.0	3.00	3.50	2.70	3.10
MLA201610L-2R2M	2.2	±20%	160	140	2.00	2.50	1.80	2.20
MLA201610L-3R3M	3.3	±20%	215	195	1.70	2.00	1.50	1.70

MLA201612 Electrical Characteristics(at 25℃)

Part Number	Inductance ① (uH)	Inductance Tolerance	DCR ② (mΩ) Max.	DCR ② (mΩ) Typ.	Isat ③ (A) Max.	Isat ③ (A) Typ.	Irms ④ (A) Max.	Irms ④ (A) Typ.
MLA201612H-R47M	0.47	±20%	27.0	22.0	5.50	5.90	5.00	5.30
MLA201612H-1R0M	1.0	±20%	55.0	48.0	4.20	4.70	3.80	4.20
MLA201612H-2R2M	2.2	±20%	110	98.0	3.00	3.50	2.70	3.20
MLA201612H-3R3M	3.3	±20%	165	145	2.50	2.90	2.30	2.60
MLA201612S-R47M	0.47	±20%	32	27.0	5.00	5.50	4.50	5.00
MLA201612S-1R0M	1.0	±20%	60	52.0	3.70	4.10	3.30	3.70
MLA201612S-2R2M	2.2	±20%	125	110	2.50	3.00	2.20	2.70
MLA201612S-3R3M	3.3	±20%	175	155	2.20	2.40	2.00	2.20
MLA201612L-R47M	0.47	±20%	38.0	33.0	4.80	5.20	4.00	4.50
MLA201612L-1R0M	1.0	±20%	70.0	62.0	3.20	3.60	2.90	3.20
MLA201612L-2R2M	2.2	±20%	145	130	2.20	2.70	2.00	2.50
MLA201612L-3R3M	3.3	±20%	195	175	2.00	2.20	1.70	1.90

MLA252010 Electrical Characteristics(at 25℃)

Part Number	Inductance ① (uH)	Inductance Tolerance	DCR ② (mΩ) Max.	DCR ② (mΩ) Typ.	Isat ③ (A) Max.	Isat ③ (A) Typ.	Irms ④ (A) Max.	Irms ④ (A) Typ.
MLA252010H-R47M	0.47	±20%	23.0	18.0	6.20	6.50	5.20	5.50
MLA252010H-1R0M	1.0	±20%	52.0	46.0	4.80	5.20	4.30	4.80
MLA252010H-2R2M	2.2	±20%	98.0	85.0	3.30	3.70	3.00	3.30
MLA252010H-3R3M	3.3	±20%	150	130	2.50	3.00	2.00	2.50
MLA252010S-R47M	0.47	±20%	28.0	23.0	5.50	6.00	5.00	5.50
MLA252010S-1R0M	1.0	±20%	55.0	50.0	4.20	4.80	3.80	4.20
MLA252010S-2R2M	2.2	±20%	110	98.0	2.70	3.00	2.50	2.80
MLA252010S-3R3M	3.3	±20%	160	140	2.30	2.80	1.80	2.30
MLA252010L-R47M	0.47	±20%	35.0	30.0	5.00	5.50	4.50	5.00
MLA252010L-1R0M	1.0	±20%	62.0	57.0	3.80	4.20	3.30	3.70
MLA252010L-2R2M	2.2	±20%	130	115	2.40	3.00	2.20	2.80
MLA252010L-3R3M	3.3	±20%	175	155	2.10	2.60	1.60	2.10

MLA252012 Electrical Characteristics(at 25℃)

Part Number	Inductance ① (uH)	Inductance Tolerance	DCR ② (mΩ) Max.	DCR ② (mΩ) Typ.	Isat ③ (A) Max.	Isat ③ (A) Typ.	Irms ④ (A) Max.	Irms ④ (A) Typ.
MLA252012H-R47M	0.47	±20%	21.0	17.0	7.00	7.50	6.00	6.50
MLA252012H-1R0M	1.0	±20%	50.0	44.0	5.20	6.00	4.50	5.00
MLA252012H-2R2M	2.2	±20%	85.0	75.0	3.50	4.00	3.20	3.50
MLA252012H-3R3M	3.3	±20%	140	120	2.80	3.00	2.30	2.80
MLA252012S-R47M	0.47	±20%	27.0	22.0	6.00	6.50	5.50	6.00
MLA252012S-1R0M	1.0	±20%	52.0	47.0	4.50	5.00	4.00	4.50
MLA252012S-2R2M	2.2	±20%	100	85.0	3.00	3.50	2.70	3.20
MLA252012S-3R3M	3.3	±20%	150	130	2.50	3.00	2.00	2.50
MLA252012L-R47M	0.47	±20%	33.0	28.0	5.20	5.70	4.50	5.00
MLA252012L-1R0M	1.0	±20%	60.0	50.0	4.00	4.50	3.50	4.00
MLA252012L-2R2M	2.2	±20%	115	100	2.70	3.20	2.50	3.00
MLA252012L-3R3M	3.3	±20%	165	145	2.30	2.80	1.80	2.30

Note:

① Inductance tested at 1MHz, 1.0Vrms using an Agilent/HP 4192A or equivalent.

② DCR measured on a micro-ohmmeter.

③ Isat: The DC current at which the inductance decreases by 30% of its initial value.

④ Irms: The DC current at which temperature rise is △T=40℃(Ta=25℃).