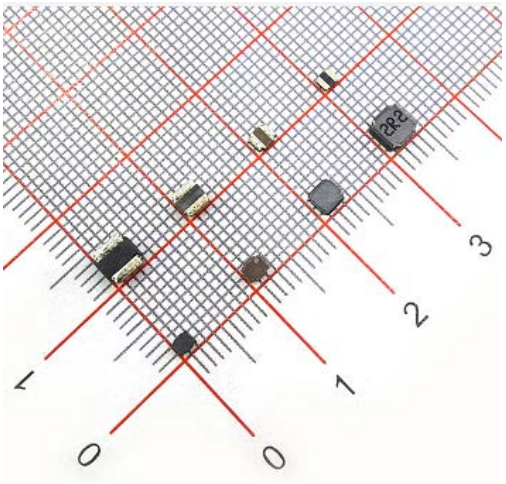
Product Outline

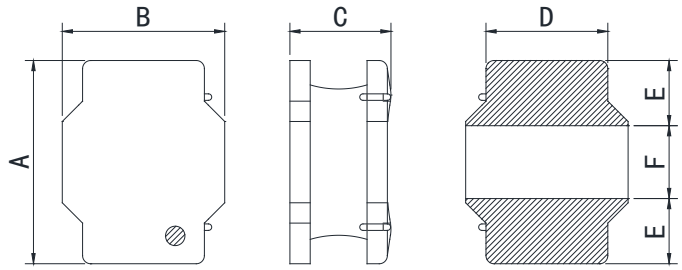
- Magnetic powder epoxy coating reduces buzz noise to a low level(Alloy Powder Series).
- A wide range of product line up is available to meet the various requirements.
- For DC/DC converter applications.
- Ideally used in the devices such as smartphone, car navigation, smart screen, flat-screen TVs, notebook PC, LED lighting,various power modules, etc.
- Custom design is also available.
- RoHS compliant.



Dimensions

Recommended land pattern

Fig.1



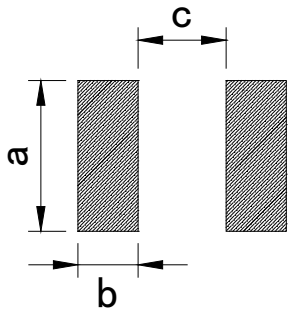
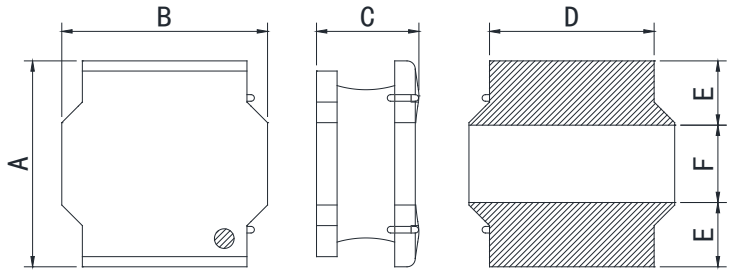


Fig.2



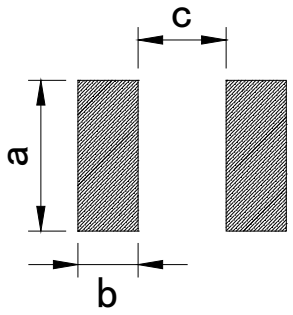
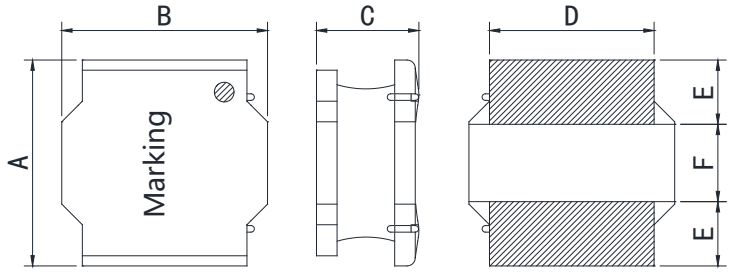
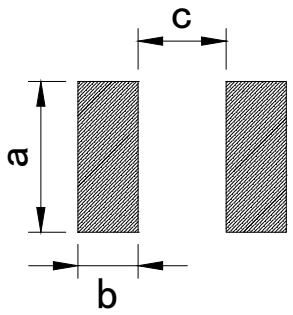


Fig.3





Unit：mm

Type	Shape	A	B	C	D	E	F	a	b	c	Packaging (pcs/reel)
KTNR201610A	Fig.1	2.0	1.6	1.0 Max.	1.5	0.6	0.8	1.7	0.7	0.7	2000
KTNR201612A	Fig.1	2.0	1.6	1.2 Max.	1.2	0.6	0.8	1.7	0.7	0.7	2000
KTNR252010A	Fig.1	2.5	2.0	1.0 Max.	1.65	0.8	0.8	2.0	0.85	0.8	2000
KTNR252012A	Fig.1	2.5	2.0	1.2 Max.	1.65	0.8	0.8	2.0	0.85	0.8	2000
KTNR3010A	Fig.2	3.0	3.0	1.0 Max.	2.6	0.75	1.5	3.2	0.8	1.5	2000
KTNR3012A	Fig.2	3.0	3.0	1.2 Max.	2.6	0.75	1.5	3.2	0.8	1.5	2000
KTNR4010A	Fig.3	4.0	4.0	1.0 Max.	3.1	0.95	2.1	3.7	1.1	1.9	5000
KTNR4012A	Fig.3	4.0	4.0	1.2 Max.	3.1	0.95	2.1	3.7	1.1	1.9	4500
KTNR4020A	Fig.3	4.0	4.0	2.0 Max.	3.4	0.95	2.1	3.7	1.1	1.9	3000

Dimensions without tolerance are typical.

Product Identification

KTNR	3010	A	-	4R7	M	C	S
(1)	(2)	(3)		(4)	(5)	(6)	(7)

(1) Product Series No.

(2) Dimension symbol.
3010=3.0 x 1.0mm (L x H)

(3) Internal control code.

(4) Inductance value.
100=10×10^0 uH=10 uH 4R7=4.7 uH

(5) Tolerance.
M=±20% , Y=±30% , P=±35%

(6) Packing Style.
C=Carrier Taping, B=Bulk.

(7) Characteristic parameter level.

KTNR201610A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR201610A-R16MCS	0.16	±20%	31	4.30	4.80	3.20	3.50
KTNR201610A-R24MCS	0.24	±20%	40	3.70	4.10	2.90	3.20
KTNR201610A-R33MCS	0.33	±20%	40	2.50	3.10	2.90	3.20
KTNR201610A-R47MCS	0.47	±20%	59	2.30	2.85	2.35	2.60
KTNR201610A-R68MCS	0.68	±20%	76	1.95	2.45	2.05	2.25
KTNR201610A-1R0MCS	1.0	±20%	114	1.65	1.85	1.45	1.60
KTNR201610A-1R5MCS	1.5	±20%	174	1.35	1.65	1.25	1.40
KTNR201610A-2R2MCS	2.2	±20%	264	1.20	1.45	1.10	1.20
KTNR201610A-3R3MCS	3.3	±20%	335	0.90	1.05	0.88	0.98
KTNR201610A-4R7MCS	4.7	±20%	479	0.70	0.85	0.74	0.82
KTNR201610A-6R8MCS	6.8	±20%	816	0.60	0.70	0.52	0.58
KTNR201610A-100MCS	10	±20%	1020	0.50	0.55	0.45	0.50

KTNR201612A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR201612A-R24MCS	0.24	±20%	23	5.85	6.75	4.50	5.20
KTNR201612A-R33MCS	0.33	±20%	31	5.15	6.00	3.85	4.45
KTNR201612A-R47MCS	0.47	±20%	41	3.95	4.60	3.40	3.90
KTNR201612A-1R0MCS	1.0	±20%	59	2.70	3.10	2.70	3.00
KTNR201612A-1R5MCS	1.5	±20%	109	1.90	2.35	2.10	2.45
KTNR201612A-2R2MCS	2.2	±20%	146	1.70	2.00	1.80	2.05

KTNR252010A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR252010A-R33MCS	0.33	±20%	39	4.80	5.50	3.50	4.05
KTNR252010A-R47MCS	0.47	±20%	45	4.40	5.20	3.20	3.70
KTNR252010A-R68MCS	0.68	±20%	59	3.20	3.60	2.75	3.20
KTNR252010A-1R0MCS	1.0	±20%	76	3.10	3.50	2.50	2.90
KTNR252010A-1R5MCS	1.5	±20%	106	2.60	3.00	2.00	2.30
KTNR252010A-2R2MCS	2.2	±20%	155	1.90	2.20	1.50	1.80
KTNR252010A-3R3MCS	3.3	±20%	235	1.60	1.80	1.20	1.40
KTNR252010A-4R7MCS	4.7	±20%	276	1.30	1.50	1.10	1.30
KTNR252010A-100MCS	10	±20%	500	0.90	1.00	0.80	0.90

KTNR252012A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR252012A-R24MCS	0.24	±20%	23	6.50	7.80	4.05	4.70
KTNR252012A-R33MCS	0.33	±20%	28	5.30	6.20	3.70	4.30
KTNR252012A-R47MCS	0.47	±20%	35	4.90	5.60	3.45	4.00
KTNR252012A-R68MCS	0.68	±20%	43	3.70	4.30	3.15	3.60
KTNR252012A-1R0MCS	1.0	±20%	54	3.60	4.20	3.00	3.40
KTNR252012A-1R5MCS	1.5	±20%	72	2.90	3.50	2.40	2.80
KTNR252012A-2R2MCS	2.2	±20%	120	2.60	3.00	1.90	2.15
KTNR252012A-3R3MCS	3.3	±20%	163	1.70	2.10	1.80	2.05
KTNR252012A-4R7MCS	4.7	±20%	260	1.60	1.90	1.25	1.45
KTNR252012A-6R8MCS	6.8	±20%	366	1.15	1.35	0.95	1.10
KTNR252012A-100MCS	10	±20%	480	1.10	1.35	0.85	1.00

KTNR3010A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR3010A-100MCS	10	±20%	432	1.00	1.20	1.20	1.40

KTNR3012A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR3012A-R33MCS	0.33	±20%	27	7.20	8.90	4.20	4.85
KTNR3012A-R47MCS	0.47	±20%	33	6.80	8.00	3.90	4.50
KTNR3012A-R68MCS	0.68	±20%	42	5.80	6.80	3.40	3.90
KTNR3012A-1R0MCS	1.0	±20%	54	4.20	5.40	2.70	3.10
KTNR3012A-1R5MCS	1.5	±20%	74	3.40	4.10	2.50	2.90
KTNR3012A-2R2MCS	2.2	±20%	108	2.80	3.35	2.05	2.35
KTNR3012A-3R3MCS	3.3	±20%	155	2.20	2.60	1.70	2.00
KTNR3012A-4R7MCS	4.7	±20%	235	2.00	2.50	1.30	1.50
KTNR3012A-6R8MCS	6.8	±20%	340	1.60	1.90	1.10	1.25
KTNR3012A-100MCS	10	±20%	474	1.20	1.45	1.00	1.15

KTNR4010A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR4010A-100MCS	10	±20%	335	1.40	1.65	1.40	1.60

KTNR4012A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR4012A-R33MCS	0.33	±20%	32	10.30	11.50	4.30	4.90
KTNR4012A-R47MCS	0.47	±20%	41	9.10	9.90	3.80	4.40
KTNR4012A-R68MCS	0.68	±20%	41	5.50	6.35	3.80	4.40
KTNR4012A-1R0MCS	1.0	±20%	59	5.70	6.60	3.20	3.70
KTNR4012A-1R2MCS	1.2	±20%	59	4.00	4.80	3.20	3.70
KTNR4012A-1R5MCS	1.5	±20%	70	3.90	4.60	2.90	3.30
KTNR4012A-2R2MCS	2.2	±20%	79	2.80	3.30	2.70	3.10
KTNR4012A-3R3MCS	3.3	±20%	125	2.80	3.30	2.10	2.50
KTNR4012A-4R7MCS	4.7	±20%	166	2.30	2.60	1.90	2.20
KTNR4012A-6R8MCS	6.8	±20%	226	1.60	2.20	1.60	1.85
KTNR4012A-100MCS	10	±20%	335	1.55	1.85	1.30	1.50
KTNR4012A-220MCS	22	±20%	679	1.05	1.30	0.90	1.05

KTNR4012A Electrical Characteristics

Part Number	Inductance ① (uH)	Inductance tolerance	DCR ② (mΩ) Max.	I sat ③ (A) Max.	I sat ③ (A) Typ.	I rms ④ (A) Max.	I rms ④ (A) Typ.
KTNR4020A-R22MCS	0.22	±20%	13	18.70	22.00	8.20	9.50
KTNR4020A-R47MCS	0.47	±20%	22	13.40	15.50	6.40	7.40
KTNR4020A-R68MCS	0.68	±20%	22	8.70	11.10	6.40	7.40
KTNR4020A-1R0MCS	1.0	±20%	26	8.70	11.10	5.80	6.70
KTNR4020A-1R5MCS	1.5	±20%	36	7.70	9.60	5.20	6.00
KTNR4020A-2R2MCS	2.2	±20%	48	6.10	7.60	4.30	5.00
KTNR4020A-3R3MCS	3.3	±20%	72	4.70	5.90	3.45	4.00
KTNR4020A-4R7MCS	4.7	±20%	108	4.00	4.90	2.85	3.30
KTNR4020A-6R8MCS	6.8	±20%	156	3.00	4.20	2.40	2.80
KTNR4020A-100MCS	10	±20%	216	2.80	3.50	2.00	2.35

Note：

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

② DCR measured on a micro-ohmmeter.

③ I sat: The DC current at which the inductance decreases by 30% of it's initial value.

④ I rms: The DC current at which △t=40℃.