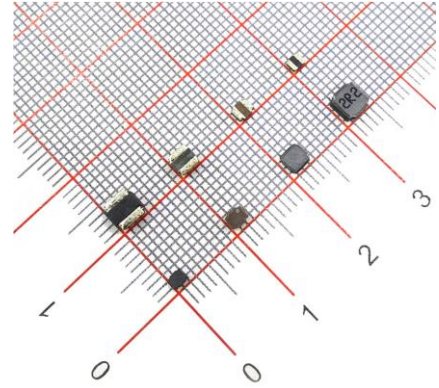
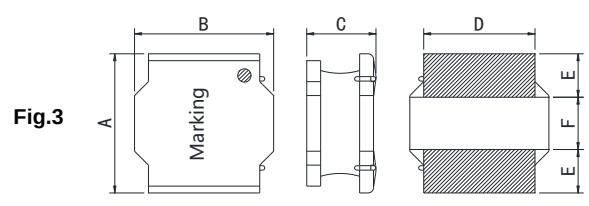
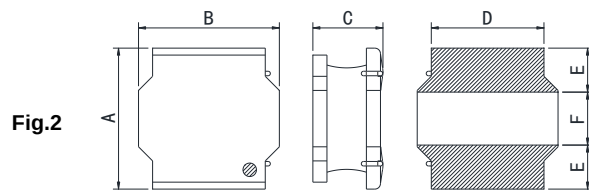
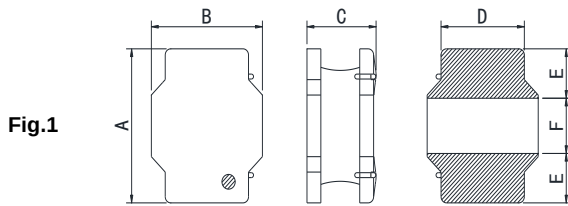


Product Outline

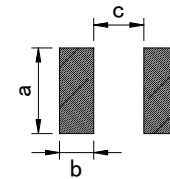
- Magnetic powder epoxy coating reduces buzz noise to a low level(Alloy Powder Series).
- A wide range of product line up is available to meet the various requirements.
- For DC/DC converter applications.
- Ideally used in the devices such as smartphone, car navigation, smart screen, flat-screen TVs,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



Dimensions(mm)



Recommended Patterns



Type	Shape	A	B	C	D	E	F	a	b	c	Packaging (pcs/reel)
KTNR201610A	Fig.1	2.0±0.2	1.6±0.2	1.0 Max.	1.5±0.2	0.6	0.8	1.7	0.7	0.7	2000
KTNR252010A	Fig.1	2.5±0.2	2.0±0.2	1.0 Max.	1.65±0.2	0.8	0.8	2.0	0.85	0.8	2000
KTNR252012A	Fig.1	2.5±0.2	2.0±0.2	1.2 Max.	1.65±0.2	0.8	0.8	2.0	0.85	0.8	2000
KTNR3012A	Fig.2	3.0±0.2	3.0±0.2	1.2 Max.	2.6±0.2	0.75	1.5	3.2	0.8	1.5	2000
KTNR4012A	Fig.3	4.0±0.2	4.0±0.2	1.2 Max.	3.1±0.2	0.95	2.1	3.7	1.1	1.9	4500
KTNR4020A	Fig.3	4.0±0.2	4.0±0.2	2.0 Max.	3.4±0.2	0.95	2.1	3.7	1.1	1.9	3000

Dimensions without tolerance are typical.

Product Identification

KTNR 3012 A - 4R7 M C S
 ① ② ③ ④ ⑤ ⑥ ⑦

- | | |
|---|---|
| ① Product Series No | ⑤ Tolerance: K=±10%, M=±20%, N=±30% |
| ② Dimension symbol: 3012=3.0x1.2mm | ⑥ Packaging Style: C=Carrier Tape, B=bulk |
| ③ Internal Code | ⑦ Characteristic Parameter Level |
| ④ Inductance Value:
4R7=4.7uH, 100=10uH, 101=100uH | |

KTNR201610A Electrical Characteristics

Part Number	Inductance (uH) ①	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

KTNR252010A Electrical Characteristics

Part Number	Inductance (uH) ①	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 (uH) ①	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

- 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 $\Delta t=40^{\circ}\text{C}$.

All specifications are subject to change without notice.

KTNR3012A Electrical Characteristics

Part Number	Inductance (uH) ①	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

KTNR4012A Electrical Characteristics

Part Number	Inductance (uH) ①	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	10.3	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

KTNR4020A Electrical Characteristics

Part Number	Inductance (uH) ①	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

- ① Inductance tested at 1.0 MHz/1.0Vrms 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 $\Delta t=40^{\circ}\text{C}$.

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