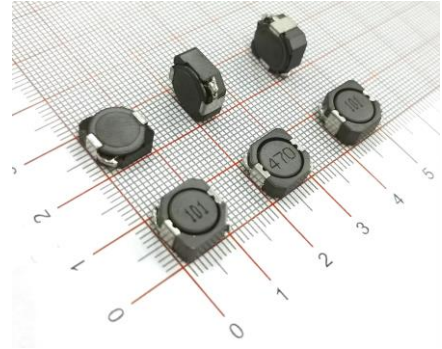
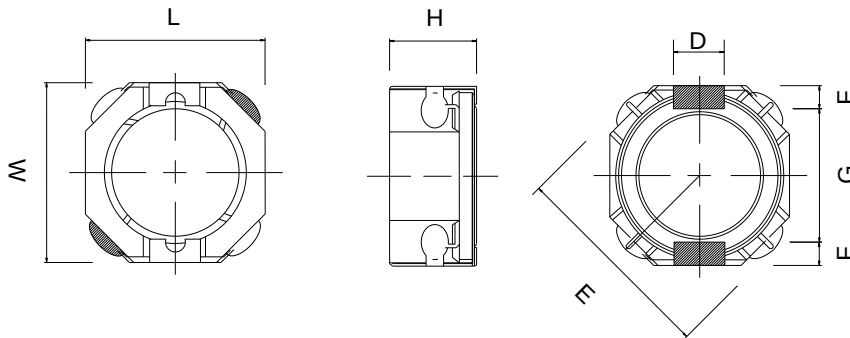


Product outline

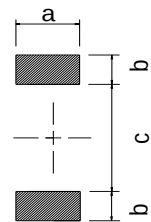
- Magnetically shielded types.
- A wide range of product line up is available to meet various requirements.
- Excellent saturation current handling to be up to 9.69A.
- For DC/DC converter applications.
- Ideally used in car navigation, LED Lighting, Notebook PC, power modules, etc.
- Custom design is also available.



Dimensions(mm)



Recommended Patterns



Type	L	W	H	D	E	F	G	a	b	c	Packaging (pcs/reel)
KTDRH103R	10.2±0.3	10.0±0.3	3.1 max.	3.0±0.3	13.3	1.2	7.8	3.2	1.6	7.3	1000
KTDRH104R	10.2±0.3	10.0±0.3	4.0 max.	3.0±0.3	13.3	1.2	7.8	3.2	1.6	7.3	1000
KTDRH105R	10.2±0.3	10.0±0.3	5.1 max.	3.0±0.3	13.3	1.2	7.8	3.2	1.6	7.3	800

Dimensions without tolerance are typical.

Product Identification

KTDRH **103** **R** - **470** **N** **C** **S**

① ② ③ ④ ⑤ ⑥ ⑦

- ① Product Series No.
- ② Dimension symbol. 103=10.2x10x3.1mm (L x W x H)
- ③ Internal control code.
- ④ Inductance value: 100=10×10⁰ uH=10uH, 2R2=2.2 uH, 472=4700uH
- ⑤ Tolerance: K=±10%, M=±20%, N=±30%
- ⑥ Packing Style: C=Carrier Tape, B=Bulk
- ⑦ Characteristic parameter level.

KTDRH103R Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current (A) ③
KTDRH103R-2R2NCS	2.2	±30%	100kHz/0.5V	23	6.50
KTDRH103R-3R3NCS	3.3	±30%	100kHz/0.5V	28	6.00
KTDRH103R-4R7NCS	4.7	±30%	100kHz/0.5V	47	5.50
KTDRH103R-6R8NCS	6.8	±30%	100kHz/0.5V	58	3.84
KTDRH103R-8R2NCS	8.2	±30%	100kHz/0.5V	72	4.50
KTDRH103R-100MCS	10	±20%	100kHz/0.5V	97	3.18
KTDRH103R-150MCS	15	±20%	100kHz/0.5V	122	2.80
KTDRH103R-220MCS	22	±20%	100kHz/0.5V	143	2.40
KTDRH103R-330MCS	33	±20%	100kHz/0.5V	230	2.20
KTDRH103R-470MCS	47	±20%	100kHz/0.5V	341	1.90
KTDRH103R-680MCS	68	±20%	100kHz/0.5V	511	1.50
KTDRH103R-820MCS	82	±20%	100kHz/0.5V	541	1.30
KTDRH103R-101MCS	100	±20%	1kHz/0.5V	803	1.10
KTDRH103R-151MCS	150	±20%	1kHz/0.5V	1260	0.92
KTDRH103R-221MCS	220	±20%	1kHz/0.5V	1760	0.75

KTDRH 104R Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current (A) ③
KTDRH104R-1R0NCS	1.0	±30%	100kHz/0.5V	14	10.0
KTDRH104R-1R5NCS	1.5	±30%	100kHz/0.5V	47	10.0
KTDRH104R-1R8NCS	1.8	±30%	100kHz/0.5V	17	10.0
KTDRH104R-2R0NCS	2.0	±30%	100kHz/0.5V	21	7.50
KTDRH104R-2R2NCS	2.2	±30%	100kHz/0.5V	21	7.50
KTDRH104R-2R5NCS	2.5	±30%	100kHz/0.5V	21	7.50
KTDRH104R-3R3NCS	3.3	±30%	100kHz/0.5V	25	6.00
KTDRH104R-3R5NCS	3.5	±30%	100kHz/0.5V	25	6.00
KTDRH104R-3R8NCS	3.8	±30%	100kHz/0.5V	25	6.00
KTDRH104R-4R7NCS	4.7	±30%	100kHz/0.5V	28	5.50
KTDRH104R-5R2NCS	5.2	±30%	100kHz/0.5V	22	5.50
KTDRH104R-5R6NCS	5.6	±30%	100kHz/0.5V	31	5.20
KTDRH104R-6R0NCS	6.0	±30%	100kHz/0.5V	35	5.00
KTDRH104R-6R8NCS	6.8	±30%	100kHz/0.5V	38	4.80
KTDRH104R-7R0NCS	7.0	±30%	100kHz/0.5V	38	4.80
KTDRH104R-8R2NCS	8.2	±30%	100kHz/0.5V	42	4.60
KTDRH104R-100MCS	10	±20%	100kHz/0.5V	43	4.40
KTDRH104R-120MCS	12	±20%	100kHz/0.5V	60	4.00
KTDRH104R-150MCS	15	±20%	100kHz/0.5V	68	3.60
KTDRH104R-180MCS	18	±20%	100kHz/0.5V	70	3.30
KTDRH104R-220MCS	22	±20%	100kHz/0.5V	90	2.90
KTDRH104R-240MCS	24	±20%	100kHz/0.5V	110	2.90
KTDRH104R-270MCS	27	±20%	100kHz/0.5V	117	2.60
KTDRH104R-330MCS	33	±20%	100kHz/0.5V	120	2.40
KTDRH104R-390MCS	39	±20%	100kHz/0.5V	150	2.20
KTDRH104R-470MCS	47	±20%	100kHz/0.5V	190	2.10
KTDRH104R-500MCS	50	±20%	100kHz/0.5V	200	2.00
KTDRH104R-560MCS	56	±20%	100kHz/0.5V	297	1.80
KTDRH104R-680MCS	68	±20%	100kHz/0.5V	350	1.50
KTDRH104R-750MCS	75	±20%	100kHz/0.5V	365	1.47
KTDRH104R-820MCS	82	±20%	100kHz/0.5V	385	1.45
KTDRH104R-101MCS	100	±20%	1kHz/0.5V	430	1.35

All specifications are subject to change without notice.

KTDRH 104R Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current (A) ③
KTDRH104R-121MCS	120	±20%	1kHz/0.5V	470	1.25
KTDRH104R-151MCS	150	±20%	1kHz/0.5V	506	1.15
KTDRH104R-181MCS	180	±20%	1kHz/0.5V	627	1.00
KTDRH104R-221MCS	220	±20%	1kHz/0.5V	756	0.92
KTDRH104R-271MCS	270	±20%	1kHz/0.5V	950	0.75
KTDRH104R-331MCS	330	±20%	1kHz/0.5V	1090	0.70
KTDRH104R-471MCS	470	±20%	1kHz/0.5V	1900	0.60
KTDRH104R-681MCS	680	±20%	1kHz/0.5V	2200	0.55
KTDRH104R-751MCS	750	±20%	1kHz/0.5V	3120	0.47
KTDRH104R-821MCS	820	±20%	1kHz/0.5V	4600	0.40
KTDRH104R-102MCS	1000	±20%	1kHz/0.5V	5110	0.32

KTDRH 105R Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current (A) ③
KTDRH105R-1R5NCS	1.5	±30%	100kHz/0.5V	11	10.5
KTDRH105R-2R2NCS	2.2	±30%	100kHz/0.5V	13	9.25
KTDRH105R-3R3NCS	3.3	±30%	100kHz/0.5V	17	7.80
KTDRH105R-4R7NCS	4.7	±30%	100kHz/0.5V	19	6.40
KTDRH105R-5R6NCS	5.6	±30%	100kHz/0.5V	22	5.90
KTDRH105R-6R8NCS	6.8	±30%	100kHz/0.5V	25	5.40
KTDRH105R-8R2NCS	8.2	±30%	100kHz/0.5V	29	4.85
KTDRH105R-100MCS	10	±20%	100kHz/0.5V	46	4.50
KTDRH105R-150MCS	15	±20%	100kHz/0.5V	49	3.60
KTDRH105R-220MCS	22	±20%	100kHz/0.5V	61	2.95
KTDRH105R-330MCS	33	±20%	100kHz/0.5V	84	2.40
KTDRH105R-470MCS	47	±20%	100kHz/0.5V	130	2.00
KTDRH105R-560MCS	56	±20%	100kHz/0.5V	149	1.90
KTDRH105R-680MCS	68	±20%	100kHz/0.5V	201	1.65
KTDRH105R-820MCS	82	±20%	100kHz/0.5V	227	1.50
KTDRH105R-101MCS	100	±20%	1kHz/0.5V	253	1.35
KTDRH105R-121MCS	120	±20%	1kHz/0.5V	303	1.28
KTDRH105R-151MCS	150	±20%	1kHz/0.5V	370	1.12
KTDRH105R-181MCS	180	±20%	1kHz/0.5V	419	1.04
KTDRH105R-221MCS	220	±20%	1kHz/0.5V	500	0.94
KTDRH105R-331MCS	330	±20%	1kHz/0.5V	700	0.80
KTDRH105R-391MCS	390	±20%	1kHz/0.5V	800	0.75
KTDRH105R-471MCS	470	±20%	1kHz/0.5V	1290	0.60
KTDRH105R-561MCS	560	±20%	1kHz/0.5V	1430	0.54
KTDRH105R-681MCS	680	±20%	1kHz/0.5V	1600	0.52
KTDRH105R-821MCS	820	±20%	1kHz/0.5V	1770	0.50
KTDRH105R-102MCS	1000	±20%	1kHz/0.5V	1990	0.48
KTDRH105R-152MCS	1500	±20%	1kHz/0.5V	3050	0.40
KTDRH105R-222MCS	2200	±20%	1kHz/0.5V	5110	0.30
KTDRH105R-332MCS	3300	±20%	1kHz/0.5V	6000	0.25
KTDRH105R-472MCS	4700	±20%	1kHz/0.5V	7500	0.20

① Inductance tested using an Agilent/HP 4192A or equivalent.

② DCR measured on a micro-ohmmeter.

③ Rated current: the DC current at which the inductance decreases by 35% of its nominal value or at which $\Delta t=40^{\circ}\text{C}$, whichever is lower ($T_a=20^{\circ}\text{C}$).