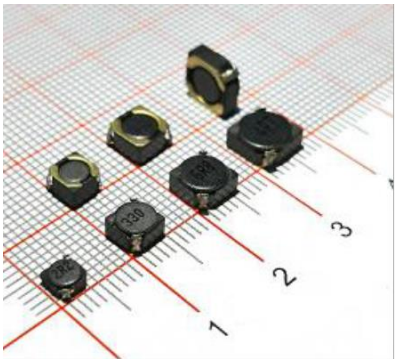
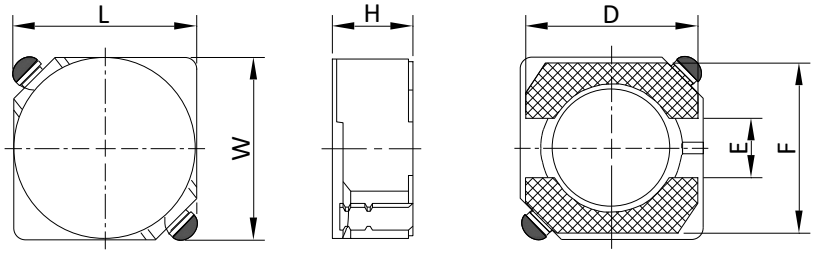
KT-D Series
SMD Power Inductors

Product outline

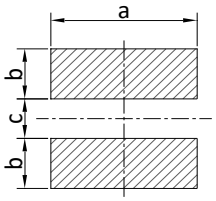
- Magnetically shielded types.
- A wide range of product line up is available to meet various requirements.
- Excellent saturation current handling to be up to 3.57A.
- For DC/DC converter applications.
- Ideally used in car navigation, LED Lighting, Notebook PC, power modules, etc.
- Custom design is also available.



Dimensions(mm)



Recommended land patterns



Type	L	W	H	D	E	F	a	b	c	Packaging (pcs/reel)
KT3D16S	3.8±0.2	3.8±0.3	1.6±0.2	3.5	1.0	3.5	4.6	1.6	1.0	3000
KT4D28S	4.70±0.3	4.70±0.3	2.80±0.2	4.5	1.5	4.5	5.3	1.9	1.5	2000
KT5D18S	5.70±0.3	5.70±0.3	1.80±0.2	5.5	2.0	5.5	6.3	2.15	2.0	3000
KT5D28S	5.70±0.3	5.70±0.3	2.80±0.2	5.5	2.0	5.5	6.3	2.15	2.0	2000
KT6D28S	6.70±0.3	6.70±0.3	2.80±0.2	6.5	2.0	6.5	7.3	2.65	2.0	1500
KT6D38S	6.70±0.3	6.70±0.3	3.80±0.2	6.5	2.0	6.5	7.3	2.65	2.0	1000

Dimensions without tolerance are typical.

Product Identification

KT	4D28	S	-	470	M	C	S
①	②	③		④	⑤	⑥	⑦

① Product Series No.
② Dimension symbol:4D28=4.7x4.7x2.8mm (L x W x H)
③ Internal control code.
④ Inductance value:100=10×10^0 uH=10uH,2R2=2.2uH,101=100uH
⑤ Tolerance:M=±20%,N=±30%,K=±10%
⑥ Packing Style:C=Carrier Tape,B=Bulk
⑦ Characteristic parameter level.

All specifications are subject to change without notice.

KT3D16S Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current max.(A) ③
KT3D16S-R26PCS	0.26	±35%	100kHz/0.1V	27	3.60
KT3D16S-R47PCS	0.47	±35%	100kHz/0.1V	35	2.80
KT3D16S-R70PCS	0.7	±35%	100kHz/0.1V	42	2.30
KT3D16S-1R1PCS	1.1	±35%	100kHz/0.1V	50	1.90
KT3D16S-1R5NCS	1.5	±30%	100kHz/0.1V	52	1.58
KT3D16S-2R2NCS	2.2	±30%	100kHz/0.1V	72	1.20
KT3D16S-3R3NCS	3.3	±30%	100kHz/0.1V	85	1.12
KT3D16S-4R7NCS	4.7	±30%	100kHz/0.1V	105	0.92
KT3D16S-6R8NCS	6.8	±30%	100kHz/0.1V	170	0.73
KT3D16S-100MCS	10	±20%	100kHz/0.1V	210	0.56
KT3D16S-150MCS	15	±20%	100kHz/0.1V	290	0.46
KT3D16S-220MCS	22	±20%	100kHz/0.1V	425	0.41
KT3D16S-330MCS	33	±20%	100kHz/0.1V	670	0.33

KT4D28S Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current max. (A) ③
KT4D28S-1R2NCS	1.2	±30%	100kHz/0.1V	23.1	2.61
KT4D28S-1R8NCS	1.8	±30%	100kHz/0.1V	27.0	2.24
KT4D28S-2R2NCS	2.2	±30%	100kHz/0.1V	30.7	2.08
KT4D28S-2R7NCS	2.7	±30%	100kHz/0.1V	42.4	1.63
KT4D28S-3R3NCS	3.3	±30%	100kHz/0.1V	48.2	1.60
KT4D28S-3R9NCS	3.9	±30%	100kHz/0.1V	63.5	1.47
KT4D28S-4R7NCS	4.7	±30%	100kHz/0.1V	70.6	1.35
KT4D28S-5R6NCS	5.6	±30%	100kHz/0.1V	98.9	1.19
KT4D28S-6R8NCS	6.8	±30%	100kHz/0.1V	107	1.14
KT4D28S-8R2NCS	8.2	±30%	100kHz/0.1V	115	1.06
KT4D28S-100MCS	10	±20%	100kHz/0.1V	126	1.02
KT4D28S-120MCS	12	±20%	100kHz/0.1V	129	0.86
KT4D28S-150MCS	15	±20%	100kHz/0.1V	146	0.78
KT4D28S-180MCS	18	±20%	100kHz/0.1V	163	0.73
KT4D28S-220MCS	22	±20%	100kHz/0.1V	230	0.71
KT4D28S-270MCS	27	±20%	100kHz/0.1V	256	0.59
KT4D28S-330MCS	33	±20%	100kHz/0.1V	325	0.57
KT4D28S-390MCS	39	±20%	100kHz/0.1V	376	0.51
KT4D28S-470MCS	47	±20%	100kHz/0.1V	575	0.49
KT4D28S-560MCS	56	±20%	100kHz/0.1V	612	0.42
KT4D28S-680MCS	68	±20%	100kHz/0.1V	685	0.36
KT4D28S-820MCS	82	±20%	100kHz/0.1V	897	0.33
KT4D28S-101MCS	100	±20%	1kHz/0.5V	1000	0.30
KT4D28S-121MCS	120	±20%	1kHz/0.5V	1245	0.28
KT4D28S-151MCS	150	±20%	1kHz/0.5V	1323	0.24
KT4D28S-181MCS	180	±20%	1kHz/0.5V	1509	0.22

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KT5D18S Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current max. (A) ③
KT5D18S-3R3NCS	3.3	±30%	100kHz/0.1V	46.1	2.04
KT5D18S-4R7NCS	4.7	±30%	100kHz/0.1V	58.0	1.92
KT5D18S-100MCS	10	±20%	100kHz/0.1V	122	1.22
KT5D18S-120MCS	12	±20%	100kHz/0.1V	150	1.12
KT5D18S-150MCS	15	±20%	100kHz/0.1V	192	0.99
KT5D18S-180MCS	18	±20%	100kHz/0.1V	206	0.87
KT5D18S-220MCS	22	±20%	100kHz/0.1V	284	0.82
KT5D18S-270MCS	27	±20%	100kHz/0.1V	323	0.77
KT5D18S-330MCS	33	±20%	100kHz/0.1V	377	0.66
KT5D18S-390MCS	39	±20%	100kHz/0.1V	510	0.58
KT5D18S-470MCS	47	±20%	100kHz/0.1V	583	0.55
KT5D18S-560MCS	56	±20%	100kHz/0.1V	652	0.51
KT5D18S-680MCS	68	±20%	100kHz/0.1V	823	0.44
KT5D18S-820MCS	82	±20%	100kHz/0.1V	958	0.42
KT5D18S-101MCS	100	±20%	1kHz/0.5V	1176	0.37

KT5D28S Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current max. (A) ③
KT5D28S-2R5NCS	2.5	±30%	100kHz/0.1V	17.6	2.65
KT5D28S-3R0NCS	3.0	±30%	100kHz/0.1V	23.5	2.45
KT5D28S-4R2NCS	4.2	±30%	100kHz/0.1V	30.4	2.24
KT5D28S-4R7NCS	4.7	±30%	100kHz/0.1V	33.0	2.10
KT5D28S-5R3NCS	5.3	±30%	100kHz/0.1V	37.2	1.94
KT5D28S-6R2NCS	6.2	±30%	100kHz/0.1V	44.1	1.84
KT5D28S-8R2NCS	8.2	±30%	100kHz/0.1V	51.9	1.63
KT5D28S-100MCS	10	±20%	100kHz/0.1V	63.7	1.33
KT5D28S-120MCS	12	±20%	100kHz/0.1V	74.5	1.22
KT5D28S-150MCS	15	±20%	100kHz/0.1V	101	1.12
KT5D28S-180MCS	18	±20%	100kHz/0.1V	108	1.02
KT5D28S-220MCS	22	±20%	100kHz/0.1V	120	0.92
KT5D28S-270MCS	27	±20%	100kHz/0.1V	172	0.87
KT5D28S-330MCS	33	±20%	100kHz/0.1V	185	0.77
KT5D28S-390MCS	39	±20%	100kHz/0.1V	208	0.71
KT5D28S-470MCS	47	±20%	100kHz/0.1V	245	0.63
KT5D28S-560MCS	56	±20%	100kHz/0.1V	299	0.59
KT5D28S-680MCS	68	±20%	100kHz/0.1V	348	0.53
KT5D28S-820MCS	82	±20%	100kHz/0.1V	454	0.47
KT5D28S-101MCS	100	±20%	1kHz/0.5V	510	0.43

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 △t=40℃, whichever is lower(Ta=20℃).

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KT6D28S Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current max. (A) ③
KT6D28S-2R2NCS	2.2	±30%	100kHz/0.1V	18.0	3.50
KT6D28S-3R9NCS	3.9	±30%	100kHz/0.1V	26.5	2.65
KT6D28S-5R0NCS	5.0	±30%	100kHz/0.1V	30.4	2.45
KT6D28S-6R0NCS	6.0	±30%	100kHz/0.1V	34.3	2.30
KT6D28S-7R3NCS	7.3	±30%	100kHz/0.1V	52.9	2.14
KT6D28S-8R6NCS	8.6	±30%	100kHz/0.1V	56.8	1.89
KT6D28S-100MCS	10	±20%	100kHz/0.1V	63.7	1.73
KT6D28S-120MCS	12	±20%	100kHz/0.1V	68.6	1.58
KT6D28S-150MCS	15	±20%	100kHz/0.1V	82.3	1.43
KT6D28S-180MCS	18	±20%	100kHz/0.1V	93	1.35
KT6D28S-220MCS	22	±20%	100kHz/0.1V	125	1.22
KT6D28S-270MCS	27	±20%	100kHz/0.1V	139	1.07
KT6D28S-330MCS	33	±20%	100kHz/0.1V	162	0.99
KT6D28S-390MCS	39	±20%	100kHz/0.1V	206	0.88
KT6D28S-470MCS	47	±20%	100kHz/0.1V	233	0.82
KT6D28S-560MCS	56	±20%	100kHz/0.1V	271	0.74
KT6D28S-680MCS	68	±20%	100kHz/0.1V	298	0.66
KT6D28S-820MCS	82	±20%	100kHz/0.1V	382	0.61
KT6D28S-101MCS	100	±20%	1kHz/0.5V	524	0.55

KT6D38S Electrical Characteristics

Part Number	Inductance (uH) ①	Inductance tolerance	Test Conditions	DCR max. (mΩ) ②	Rated current max. (A) ③
KT6D38S-3R3NCS	3.3	±30%	100kHz/0.1V	19.6	3.57
KT6D38S-100MCS	10	±20%	100kHz/0.1V	37.2	2.04
KT6D38S-120MCS	12	±20%	100kHz/0.1V	51.9	1.73
KT6D38S-150MCS	15	±20%	100kHz/0.1V	55.9	1.63
KT6D38S-180MCS	18	±20%	100kHz/0.1V	90.2	1.53
KT6D38S-220MCS	22	±20%	100kHz/0.1V	94	1.33
KT6D38S-270MCS	27	±20%	100kHz/0.1V	107	1.22
KT6D38S-330MCS	33	±20%	100kHz/0.1V	122	1.12
KT6D38S-390MCS	39	±20%	100kHz/0.1V	135	1.02
KT6D38S-470MCS	47	±20%	100kHz/0.1V	152	0.97
KT6D38S-560MCS	56	±20%	100kHz/0.1V	198	0.87
KT6D38S-680MCS	68	±20%	100kHz/0.1V	229	0.77
KT6D38S-820MCS	82	±20%	100kHz/0.1V	318	0.71
KT6D38S-101MCS	100	±20%	1kHz/0.5V	351	0.66

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 △t=40℃, whichever is lower(Ta=20℃).

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