

Exquisite Outlook
Professional Quality



Inductors/Coils
SMD Components
Leaded Components





公司简介

深圳华锐达电子有限公司创立于 2001 年,是一家致力于电感器的研发与生产的科技型企业.公司生产优质绕线功率电感,同时经营叠层片状电感以及磁珠,公司具有丰富的生产管理经验和成熟的制造技术。产品长期以来受到了广大客户的信赖.本公司本着诚信经营,品质第一的管理理念,从事电感行业多年,秉承 " 为客户提供一流产品与服务,与客户共同发展进步,视客户为战略发展伙伴,为客户打造最优秀的供应链 " 的理念,至今已经拥有了 200 多位合作伙伴,其中有好记星,蓝魔影音,EPSON, LENOVO,JVC,BOSCH,CANON,南昌中天股份,傅氏汽车电子,德赛视听等知名企业,产品也一致受到用户的认可,我们一切从客户出发,成本、品质、交期、产品性能设计,一切都从客户利益为出发点,相信我们一定会成为您公司长期发展的战略伙伴。

产品主要用于应用于终端产品的音视频,电源部分,主要功能为滤波和升降电压。 现公司的发展蒸蒸日上,拥有一支朝气蓬勃的营销团队和售后服务队伍,随时为客户解决一切技术问题,深圳公司在金凯进工业区,毗邻龙华大浪,有 150 人左右参与生产,08 年在江西九江开设内地工厂,有 200 多人参与生产,公司所有产品均采用行业优秀工艺,严格控制品质,公司本着“以客户利益为出发点,以生产技术为后盾,提供最优品质,为客户创造超越预期的价值,致力于与客户共同发展”的经营理念,期待与广大客户共创辉煌。

深圳市华锐达电子有限公司

电话: 0755-29485625 29914312

传真: 0755-29485623

网址: www.coil-rida.com www.coil-rida.com.cn

邮箱: coil-rida@coil-rida.com.cn

**为客户提供一流产品与服务,与客户共同发展进步,视
客户为战略发展伙伴,为客户打造最优秀的供应链**

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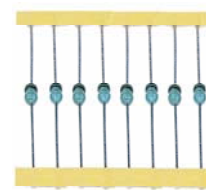
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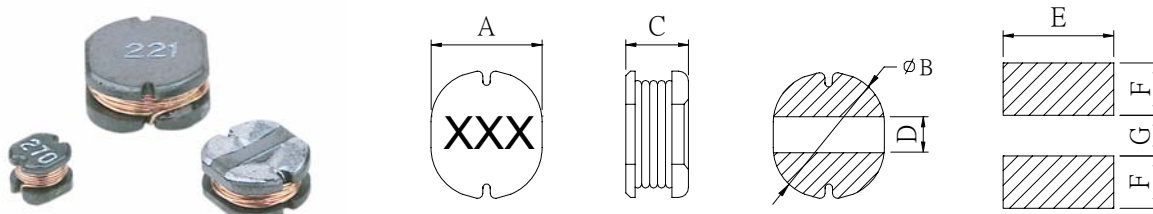
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CSM32/42/43/52/53/54/73/75/104/105 Series

EXTERNAL DIMENSIONS (Unit:m/m)



Type	A	B	C	D	E	F	G	Page
CSM32	3.0±0.3	3.5±0.3	2.1±0.3	1.0Ref.	3.2	3.5	1.6	17
CSM42	4.0±0.3	4.5±0.3	2.1±0.3	1.1Ref.	4.5	2.0	1.0	17
CSM43	4.0±0.3	4.5±0.3	3.2±0.3	1.1Ref.	4.5	2.0	1.0	17
CSM52	5.2±0.3	5.8±0.3	2.5±0.3	1.4Ref.	5.7	2.55	1.2	17
CSM53	5.2±0.3	5.8±0.3	3.5±0.3	1.4Ref.	5.7	2.55	1.2	17
CSM54	5.2±0.3	5.8±0.3	4.5±0.3	1.4Ref.	5.7	2.55	1.2	17
CSM73	7.0±0.3	7.8±0.3	3.5±0.5	1.7Ref.	7.5	3.4	1.5	18
CSM75	7.0±0.3	7.8±0.3	5.0±0.5	1.7Ref.	7.5	3.4	1.5	18
CSM104	9.0±0.3	10.0±0.3	4.0±0.5	2.2Ref.	9.5	4.25	2.0	19
CSM105	9.0±0.3	10.0±0.3	5.4±0.5	2.2Ref.	9.5	4.25	2.0	19

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR Meter or equivalent.
- Maximum allowable DC current is that which causes a 10% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)

Features

- Excellent solderability and high heat resistance
- Excellent terminal strength construction.
- Packed in embossed carrier tape and can be used by automatic mounting machine.

Applications

- Power supply for VCR, OA equipment, LIC television set notebook, DC to DC converters, DC to AC inverters etc.

CSM32 Series

CSM32 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM32-1R0□	1.0	100	0.07	2.08
CSM32-2R2□	2.2	100	0.13	1.39
CSM32-3R3□	3.3	100	0.20	1.25
CSM32-3R9□	3.9	100	0.21	1.20
CSM32-4R7□	4.7	100	0.33	1.03
CSM32-5R6□	5.6	100	0.35	0.91
CSM32-6R8□	6.8	100	0.43	0.85
CSM32-100□	10	100	0.65	0.74
CSM32-120□	12	100	0.82	0.64
CSM32-150□	15	100	0.90	0.6
CSM32-180□	18	100	1.14	0.54
CSM32-220□	22	100	1.39	0.50
CSM32-270□	27	100	1.55	0.43
CSM32-330□	33	100	2.15	0.37
CSM32-390□	39	100	2.44	0.36
CSM32-470□	47	100	2.68	0.31
CSM32-560□	56	100	3.05	0.30
CSM32-680□	68	100	3.48	0.28
CSM32-820□	82	100	3.84	0.25
CSM32-101□	100	100	5.76	0.20
CSM32-121□	120	100	6.62	0.19
CSM32-151□	150	100	7.36	0.17
CSM32-181□	180	100	8.38	0.16
CSM32-221□	220	100	13.7	0.14

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%.

CSM43/CSM54 Series
CSM43 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM43-1R0□	1.0	100	0.0487	2.56
CSM43-1R4□	1.4	100	0.0562	2.52
CSM43-1R8□	1.8	100	0.0637	1.95
CSM43-2R2□	2.2	100	0.0712	1.75
CSM43-2R7□	2.7	100	0.0787	1.58
CSM43-3R3□	3.3	100	0.0862	1.44
CSM43-3R9□	3.9	100	0.0937	1.33
CSM43-5R6□	5.6	100	0.1257	1.25
CSM43-6R8□	6.8	100	0.1312	1.18
CSM43-8R2□	8.2	100	0.1462	1.12
CSM43-100□	10	100	0.182	1.04
CSM43-120□	12	100	0.210	0.97
CSM43-150□	15	100	0.235	0.85
CSM43-180□	18	100	0.338	0.74
CSM43-220□	22	100	0.378	0.68
CSM43-270□	27	100	0.522	0.62
CSM43-330□	33	100	0.540	0.56
CSM43-390□	39	100	0.587	0.52
CSM43-470□	47	100	0.844	0.44
CSM43-560□	56	100	0.937	0.42
CSM43-680□	68	100	1.117	0.37
CSM43-880□	88	100	1.200	0.30
CSM43-101□	100	100	1.500	0.27

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%.

CSM54 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM54-100□	10	100	0.10	1.44
CSM54-120□	12	100	0.12	1.40
CSM54-150□	15	100	0.14	1.30
CSM54-180□	18	100	0.15	1.23
CSM54-220□	22	100	0.18	1.11
CSM54-270□	27	100	0.20	0.97
CSM54-330□	33	100	0.23	0.88
CSM54-390□	39	100	0.32	0.80
CSM54-470□	47	100	0.37	0.72
CSM54-560□	56	100	0.42	0.68
CSM54-680□	68	100	0.46	0.61
CSM54-820□	82	100	0.60	0.58
CSM54-101□	100	100	0.70	0.52
CSM54-121□	120	100	0.93	0.48
CSM54-151□	150	100	1.10	0.40
CSM54-181□	180	100	1.38	0.38
CSM54-221□	220	100	1.57	0.35

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%

CSM73/CSM75 Series

CSM73 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM73-100□	10	100	0.0803	1.44
CSM73-120□	12	100	0.0897	1.39
CSM73-150□	15	100	0.104	1.24
CSM73-180□	18	100	0.111	1.12
CSM73-220□	22	100	0.129	1.07
CSM73-270□	27	100	0.153	0.94
CSM73-330□	33	100	0.170	0.85
CSM73-390□	39	100	0.217	0.74
CSM73-470□	47	100	0.252	0.68
CSM73-560□	56	100	0.282	0.64
CSM73-680□	68	100	0.332	0.59
CSM73-820□	82	100	0.406	0.54
CSM73-101□	100	100	0.481	0.51
CSM73-121□	120	100	0.536	0.49
CSM73-151□	150	100	0.755	0.40
CSM73-181□	180	100	1.022	0.36
CSM73-221□	220	100	1.200	0.31
CSM73-271□	270	100	1.306	0.29
CSM73-331□	330	100	1.495	0.28

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%.

CSM75 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM75-100□	10	100	0.07	2.30
CSM75-120□	12	100	0.08	2.00
CSM75-150□	15	100	0.09	1.80
CSM75-180□	18	100	0.10	1.60
CSM75-220□	22	100	0.11	1.50
CSM75-270□	27	100	0.12	1.30
CSM75-330□	33	100	0.13	1.20
CSM75-390□	39	100	0.16	1.10
CSM75-470□	47	100	0.18	1.10
CSM75-560□	56	100	0.24	0.94
CSM75-680□	68	100	0.28	0.85
CSM75-820□	82	100	0.37	0.78
CSM75-101□	100	100	0.43	0.72
CSM75-121□	120	100	0.47	0.66
CSM75-151□	150	100	0.64	0.58
CSM75-181□	180	100	0.71	0.51
CSM75-221□	220	100	0.96	0.49
CSM75-271□	270	100	1.11	0.42
CSM75-331□	330	100	1.26	0.40
CSM75-391□	390	100	1.77	0.36
CSM75-471□	470	100	1.96	0.34

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%.

CSM104/105 Series

CSM104 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM104-100□	10	100	0.053	2.38
CSM104-120□	12	100	0.061	2.13
CSM104-150□	15	100	0.070	1.87
CSM104-180□	18	100	0.081	1.73
CSM104-220□	22	100	0.088	1.60
CSM104-270□	27	100	0.100	1.44
CSM104-330□	33	100	0.120	1.26
CSM104-390□	39	100	0.151	1.20
CSM104-470□	47	100	0.170	1.10
CSM104-560□	56	100	0.199	1.01
CSM104-680□	68	100	0.223	0.91
CSM104-820□	82	100	0.252	0.85
CSM104-101□	100	100	0.344	0.74
CSM104-121□	120	100	0.396	0.69
CSM104-151□	150	100	0.544	0.61
CSM104-181□	180	100	0.621	0.56
CSM104-221□	220	100	0.721	0.53
CSM104-271□	270	100	0.949	0.45
CSM104-331□	330	100	1.100	0.42
CSM104-391□	390	100	1.245	0.38
CSM104-471□	470	100	1.526	0.35
CSM104-561□	560	100	1.904	0.32

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%.

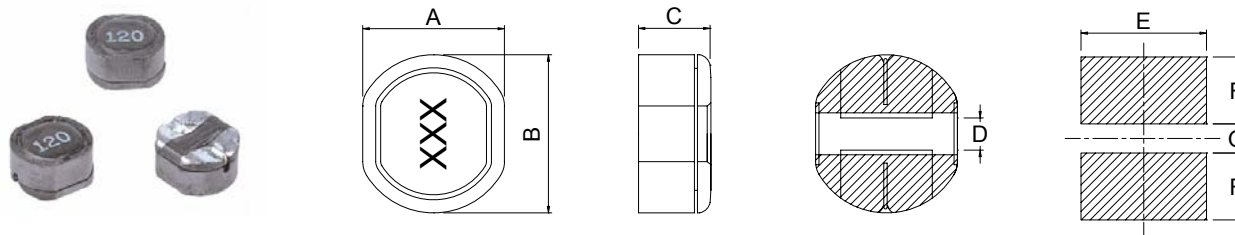
CSM105 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSM105-100□	10	100	0.06	2.60
CSM105-120□	12	100	0.07	2.45
CSM105-150□	15	100	0.08	2.27
CSM105-180□	18	100	0.09	2.15
CSM105-220□	22	100	0.10	1.95
CSM105-270□	27	100	0.11	1.76
CSM105-330□	33	100	0.12	1.50
CSM105-390□	39	100	0.14	1.37
CSM105-470□	47	100	0.17	1.28
CSM105-560□	56	100	0.19	1.17
CSM105-680□	68	100	0.22	1.11
CSM105-820□	82	100	0.25	1.00
CSM105-101□	100	100	0.35	0.97
CSM105-121□	120	100	0.40	0.89
CSM105-151□	150	100	0.47	0.78
CSM105-181□	180	100	0.63	0.72
CSM105-221□	220	100	0.73	0.66
CSM105-271□	270	100	0.97	0.57
CSM105-331□	330	100	1.15	0.52
CSM105-391□	390	100	1.30	0.48
CSM105-471□	470	100	1.48	0.42
CSM105-561□	560	100	1.90	0.33
CSM105-681□	680	100	2.25	0.28
CSM105-821□	820	100	2.55	0.24

NOTE: □ Tolerance value: K = ±10%, L = ±15%, M = ±20%.

CSM63B Series

EXTERNAL DIMENSIONS (Unit: m/m)



Type	A	B	C	D	E	F	G	Page
CSM63B	5.6±0.3	6.2±0.3	3.2±0.5	2.0Ref.	6.5	2.5	2.0	17
CSM74B	7.0±0.3	7.8±0.3	4.5±0.3	1.1Ref.	8.0	3.0	2.5	17
CSM105B	9.0±0.3	10±0.3	5.5±0.3	1.1Ref.	10	3.5	3.0	17

Test Equipment and Conditions

- Inductance is measured with HP-4286A LCR meter or equivalent.
- Inductance drops 10% typical at 1St level with temperature rise under 40°C in accordance with Irms measurement.
- Operating temperature: -25°C ~ +85°C.

Features

- To be high Sturation for surface mounting.

Applications

- VTR, OA equipment, LIC television sets, notebook PC, portable communication equipments, DC/DC converters, etc.

CSM63B-74B Series

CSM63B Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	ISt (A)Max
CSM63B-100□	10	100	0.14	1.00
CSM63B-120□	12	100	0.16	0.94
CSM63B-150□	15	100	0.18	0.86
CSM63B-180□	18	100	0.25	0.78
CSM63B-220□	22	100	0.32	0.76
CSM63B-270□	27	100	0.36	0.64
CSM63B-330□	33	100	0.41	0.61
CSM63B-390□	39	100	0.47	0.53
CSM63B-470□	47	100	0.51	0.50
CSM63B-560□	56	100	0.72	0.46
CSM63B-680□	68	100	0.82	0.42

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSM74B Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	ISt (A)Max
CSM74B-100□	10	100	0.07	1.65
CSM74B-120□	12	100	0.07	1.57
CSM74B-150□	15	100	0.08	1.39
CSM74B-180□	18	100	0.1	1.29
CSM74B-220□	22	100	0.13	1.12
CSM74B-270□	27	100	0.16	1.06
CSM74B-330□	33	100	0.18	0.97
CSM74B-390□	39	100	0.18	0.91
CSM74B-470□	47	100	0.27	0.80
CSM74B-560□	56	100	0.29	0.76
CSM74B-680□	68	100	0.33	0.68
CSM74B-820□	82	100	0.43	0.62
CSM74B-101□	100	100	0.49	0.55
CSM74B-121□	120	100	0.68	0.49
CSM74B-151□	150	100	0.94	0.44
CSM74B-181□	180	100	1.00	0.40
CSM74B-221□	220	100	1.18	0.36
CSM74B-271□	270	100	1.30	0.33

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

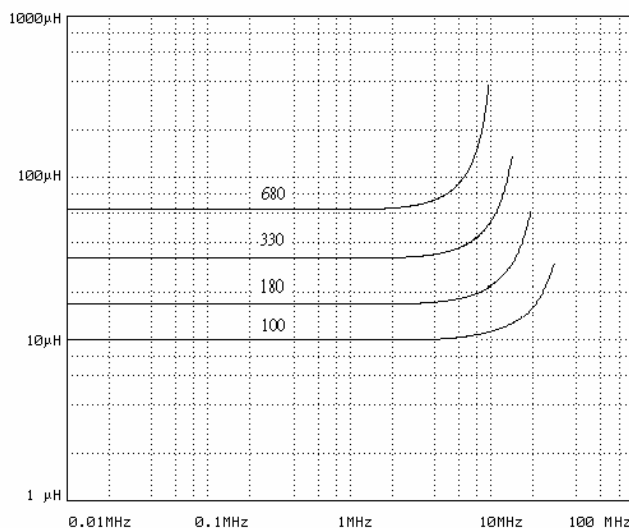
CSM105B Series

CSM105B Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	I _{St} (A)Max
CSM105B-100□	10	100	0.06	2.06
CSM105B-120□	12	100	0.07	1.94
CSM105B-150□	15	100	0.07	1.72
CSM105B-180□	18	100	0.08	1.58
CSM105B-220□	22	100	0.08	1.42
CSM105B-270□	27	100	0.1	1.32
CSM105B-330□	33	100	0.11	1.16
CSM105B-390□	39	100	0.12	1.10
CSM105B-470□	47	100	0.14	1.00
CSM105B-560□	56	100	0.19	0.93
CSM105B-680□	68	100	0.21	0.85
CSM105B-820□	82	100	0.28	0.79
CSM105B-101□	100	100	0.34	0.72
CSM105B-121□	120	100	0.37	0.63
CSM105B-151□	150	100	0.51	0.55
CSM105B-181□	180	100	0.57	0.50
CSM105B-221□	220	100	0.78	0.47
CSM105B-271□	270	100	0.87	0.41
CSM105B-331□	330	100	1.2	0.37
CSM105B-391□	390	100	1.34	0.35
CSM105B-471□	470	100	1.5	0.33

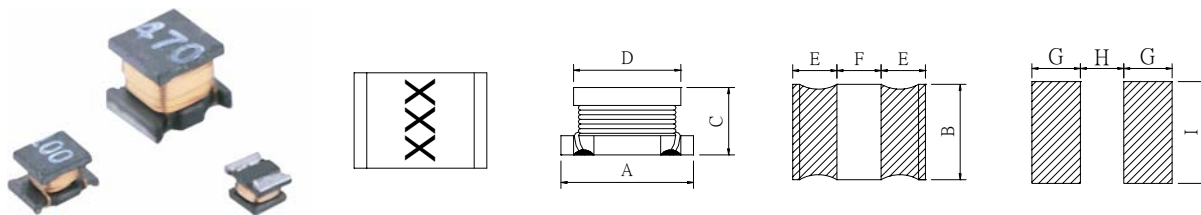
NOTE: □ Tolerance value : M = ±20%, N = ±30%.

Inductance vs Frequency Characteristics



CSM1206/1210/1812/2220 Series

EXTERNAL DIMENSIONS (Unit:m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSM1206	3.2±0.3	1.6±0.2	1.8±0.2	2.3±0.2	0.7Min	0.7Min	0.7		2.1	
CSM1210	3.2±0.3	2.5±0.2	2.0±0.2	2.5±0.2	0.9±0.3	1.3±0.3	1.3	1.0	3.0	13
CSM1812	4.5±0.3	3.2±0.2	2.6±0.2	3.6±0.2	1.0Min	1.0Min	1.8	1.5	3.8	14
CSM2220	5.7±0.3	5.0±0.3	4.7±0.3	5.0±0.3	1.3Min	1.7Min	2.3	1.7	5.5	15

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- S.R.F. measured with HP-8711 RF network analyzer or equivalent.
- Maximum allowable DC current is that which causes a 10% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)
- Operating temperature : -25°C~ +85°C.

Features

- The series has an open magnetic structure. Various inductance range is available.
- The low DC resistance permits high current flow.
- The series exhibit low voltage drops and small variations in inductance with respect to temperature rise and DC current level. This makes them excellent for use as power supply line choke coils.
- The series has excellent solder heat resistance. Both flow and reflow soldering methods can be employed.

Applications

- The series are suitable for enhancing the performance of electronic circuits in video, communications and audio equipment.

CSM1210 Series

CSM1210 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	S.R.F. (MHz) Min	Rated DC Current (A)Max
CSM1210-R15□	0.15	1000	0.021	400	4.40
CSM1210-R27□	0.27	1000	0.022	250	4.00
CSM1210-R39□	0.39	1000	0.033	200	3.10
CSM1210-R56□	0.56	1000	0.050	180	2.90
CSM1210-R82□	0.82	1000	0.053	150	2.60
CSM1210-1R0□	1.0	1000	0.063	100	2.30
CSM1210-1R2□	1.2	1000	0.092	90	2.10
CSM1210-1R5□	1.5	1000	0.100	80	1.70
CSM1210-1R8□	1.8	1000	0.110	72	1.50
CSM1210-2R2□	2.2	1000	0.124	64	1.30
CSM1210-2R7□	2.7	1000	0.132	60	1.20
CSM1210-3R3□	3.3	1000	0.167	53	1.15
CSM1210-3R9□	3.9	1000	0.222	45	1.00
CSM1210-4R7□	4.7	1000	0.247	43	0.90
CSM1210-5R6□	5.6	1000	0.359	38	0.78
CSM1210-6R8□	6.8	1000	0.392	32	0.75
CSM1210-8R2□	8.2	1000	0.450	30	0.70
CSM1210-100□	10	1000	0.509	26	0.65
CSM1210-120□	12	1000	0.674	26	0.61
CSM1210-150□	15	1000	0.760	26	0.55
CSM1210-180□	18	1000	0.978	20	0.45
CSM1210-220□	22	100	1.12	19	0.43
CSM1210-270□	27	100	1.24	18	0.38
CSM1210-330□	33	100	1.94	17	0.35
CSM1210-390□	39	100	2.00	16	0.33
CSM1210-470□	47	100	3.20	15	0.30
CSM1210-560□	56	100	3.64	13	0.25
CSM1210-680□	68	100	4.06	12	0.21
CSM1210-820□	82	100	4.58	12	0.20
CSM1210-101□	100	100	6.88	10	0.18
CSM1210-121□	120	100	7.47	8	0.16
CSM1210-151□	150	100	8.32	7	0.14
CSM1210-181□	180	100	13.16	7	0.12
CSM1210-221□	220	100	14.4	6.8	0.10
CSM1210-271□	270	100	15.0	6	0.08
CSM1210-331□	330	100	18.9	5.6	0.06
CSM1210-391□	390	1	20.4	5	0.06
CSM1210-471□	470	1	27.5	4	0.06
CSM1210-561□	560	1	29.8	4	0.05

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%, N = ±30%.

CSM1812 Series

CSM1812 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	S.R.F. (MHz) Min	Rated DC Current (A)Max
CSM1812-1R0□	1.0	1000	0.08	120	1.08
CSM1812-1R5□	1.5	1000	0.09	85	1.00
CSM1812-1R8□	1.8	1000	0.10	75	0.96
CSM1812-2R2□	2.2	1000	0.11	62	0.90
CSM1812-2R7□	2.7	1000	0.12	53	0.87
CSM1812-3R3□	3.3	1000	0.13	47	0.80
CSM1812-3R9□	3.9	1000	0.15	41	0.78
CSM1812-4R7□	4.7	1000	0.20	38	0.75
CSM1812-5R6□	5.6	1000	0.23	33	0.73
CSM1812-6R8□	6.8	1000	0.25	31	0.72
CSM1812-8R2□	8.2	1000	0.27	27	0.68
CSM1812-100□	10	1000	0.35	23	0.65
CSM1812-120□	12	1000	0.47	21	0.62
CSM1812-150□	15	1000	0.54	19	0.57
CSM1812-180□	18	1000	0.56	17	0.48
CSM1812-220□	22	1000	0.64	15	0.42
CSM1812-270□	27	100	0.75	14	0.37
CSM1812-330□	33	100	0.86	12	0.31
CSM1812-390□	39	100	1.18	11	0.30
CSM1812-470□	47	100	1.37	10	0.28
CSM1812-560□	56	100	1.56	9.3	0.25
CSM1812-680□	68	100	1.92	8.4	0.22
CSM1812-820□	82	100	2.08	7.5	0.20
CSM1812-101□	100	100	2.96	6.8	0.19
CSM1812-121□	120	100	3.20	6.2	0.17
CSM1812-151□	150	100	3.72	5.5	0.13
CSM1812-181□	180	100	5.16	5.0	0.12
CSM1812-221□	220	100	5.90	4.5	0.11
CSM1812-271□	270	100	6.55	4.0	0.105
CSM1812-331□	330	100	7.75	3.6	0.100
CSM1812-391□	390	100	8.06	3.3	0.095
CSM1812-471□	470	1	12.5	3.0	0.090
CSM1812-561□	560	1	13.0	2.7	0.070
CSM1812-681□	680	1	14.6	2.5	0.065
CSM1812-821□	820	1	16.8	2.2	0.060
CSM1812-102□	1000	1	26.4	2.0	0.050
CSM1812-122□	1200	1	44.0	1.8	0.045
CSM1812-152□	1500	1	50.2	1.6	0.040
CSM1812-182□	1800	1	55.8	1.5	0.035
CSM1812-222□	2200	1	62.4	1.3	0.030

NOTE: □ Tolerance value : J= ±5%, K= ±10%, M = ±20%, N = ±30

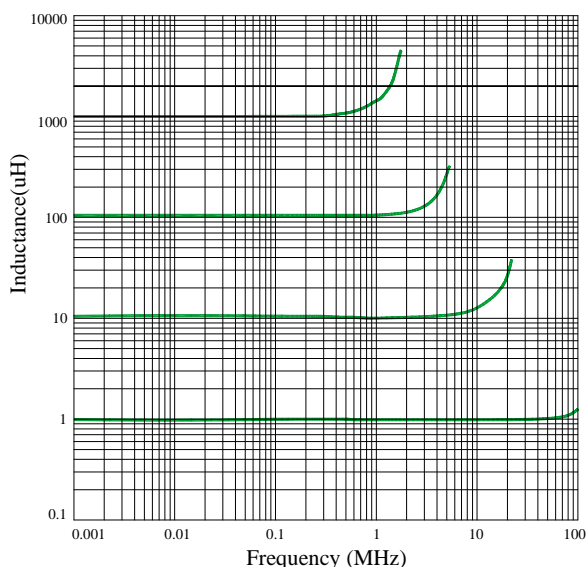
CSM2220 Series

CSM2220 Series

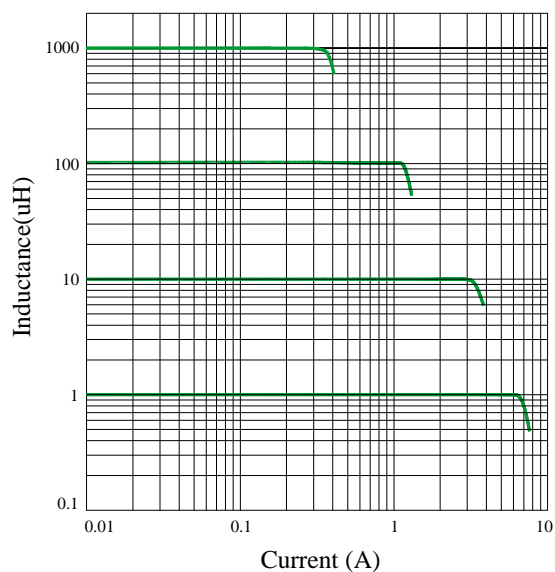
Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	S.R.F. (MHz) Min	Rated DC Current (A)Max
CSM2220-R12□	0.12	100	0.0098	450	6.0
CSM2220-R27□	0.27	100	0.014	300	5.3
CSM2220-R47□	0.47	100	0.018	200	4.8
CSM2220-1R0□	1.0	100	0.027	160	4.0
CSM2220-1R5□	1.5	100	0.031	110	3.7
CSM2220-2R2□	2.2	100	0.041	80	3.2
CSM2220-3R3□	3.3	100	0.050	40	2.9
CSM2220-4R7□	4.7	100	0.065	30	2.7
CSM2220-6R8□	6.8	100	0.104	25	2.0
CSM2220-100□	10	100	0.130	20	1.7
CSM2220-150□	15	100	0.210	17	1.4
CSM2220-220□	22	100	0.266	15	1.2
CSM2220-330□	33	100	0.448	12	0.9
CSM2220-470□	47	100	0.560	10	0.8
CSM2220-680□	68	100	0.880	7.6	0.64
CSM2220-101□	100	1	1.204	6.5	0.56
CSM2220-151□	150	1	2.66	5.0	0.42
CSM2220-221□	220	1	3.36	4.0	0.32
CSM2220-331□	330	1	6.16	3.1	0.27
CSM2220-471□	470	1	7.56	2.4	0.24
CSM2220-681□	680	1	11.34	1.9	0.19
CSM2220-102□	1000	1	14.42	1.7	0.15
CSM2220-222□	2200	1	30.1	1.2	0.10
CSM2220-472□	4700	1	55.0	0.8	0.07
CSM2220-103□	10000	1	110	0.5	0.05

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%, N = ±30%.

Typical L vs Frequency

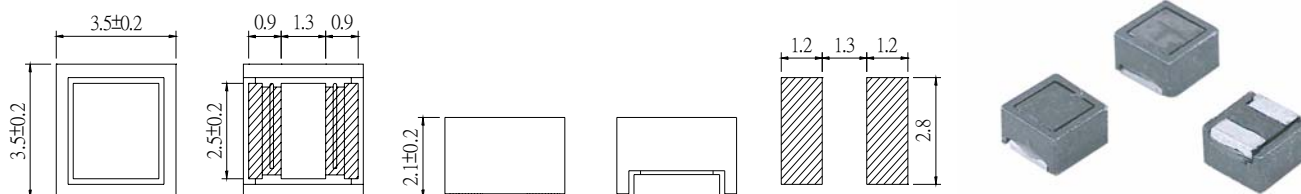


Typical L vs Current



CSM1210R Series

EXTERNAL DIMENSIONS (Unit:m/m)



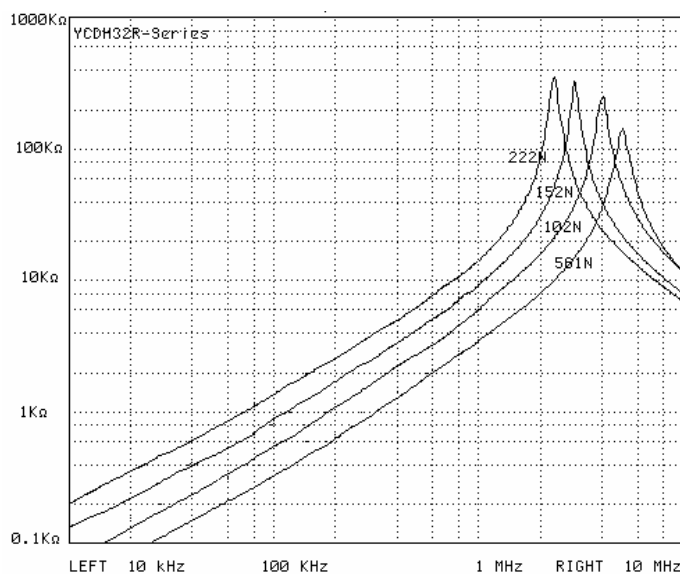
Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max.	S.R.F. (MHz) Min	Rated DC Current (mA)Max
CSM1210R-561N	560	1	10.14	3.0	50
CSM1210R-681N	680	1	11.83	2.6	40
CSM1210R-102N	1000	1	14.3	2.1	30
CSM1210R-152N	1500	1	29.9	1.7	25
CSM1210R-222N	2200	1	36.4	1.5	20

NOTE: Tolerance value : N = ±30%.

Features

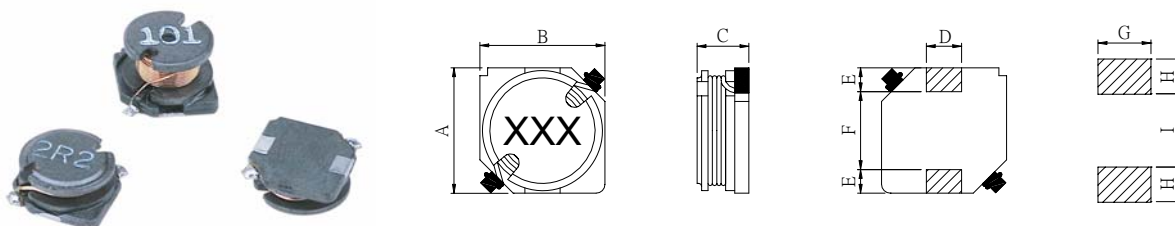
- Low profile dimension and small size is suitable for portable equipment.
- The series have low DCR esistance.
- CSM1210R Series have large inductance of 560 micro H to 2200 micro H.
- Magnetically shielded structure prevents interference occurring between peripheral components.

Impedance-Frequency Characteristics



CSMB64/73 Series

EXTERNAL DIMENSIONS (Unit: m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSMB64	7.6Max	7.6Max	5.0Max	1.7	1.2	4.6	2.7	2.0	4.4	23
CSMB73	7.6Max	7.6Max	3.0Max	2.0	1.3	4.4	3.0	2.0	4.0	23

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current whIC causes 10% inductance reduction of the initial value ,or coil temperature to rise by 40°C ,whICever is smaller.(Reference ambient temperature 20°C)
- Operating temperature : -25°C~ +85°C.

Features

- Surface mount inductor with high current rating.
- Low resistance to keep power loss minimum.
- Packed in embossed carrier tape and can be used by automatic mounting machine.

Applications

- Excellent for power line DC-DC conversion applications used in hard disk, notebook computers and other electronic equipment.

CSMB64/73Series
CSMB64 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMB64-100□	10	100	0.120	1.50
CSMB64-120□	12	100	0.130	1.44
CSMB64-150□	15	100	0.150	1.36
CSMB64-180□	18	100	0.160	1.30
CSMB64-220□	22	100	0.190	1.23
CSMB64-270□	27	100	0.210	1.11
CSMB64-330□	33	100	0.240	1.00
CSMB64-390□	39	100	0.270	0.93
CSMB64-470□	47	100	0.390	0.85
CSMB64-560□	56	100	0.450	0.75
CSMB64-680□	68	100	0.500	0.70
CSMB64-820□	82	100	0.560	0.65
CSMB64-101□	100	100	1.000	0.52
CSMB64-121□	120	100	1.050	0.50
CSMB64-151□	150	100	1.200	0.45
CSMB64-181□	180	100	1.350	0.40
CSMB64-221□	220	100	1.520	0.38
CSMB64-271□	270	100	1.720	0.35
CSMB64-331□	330	100	2.700	0.30
CSMB64-391□	390	100	2.960	0.28
CSMB64-471□	470	100	3.360	0.26
CSMB64-561□	560	100	3.790	0.24
CSMB64-681□	680	100	4.330	0.21
CSMB64-821□	820	100	5.260	0.19
CSMB64-102□	1000	100	6.220	0.17

NOTE: □Tolerance value : J = ±5%, K = ±10%, M = ±20%, N = ±30%.

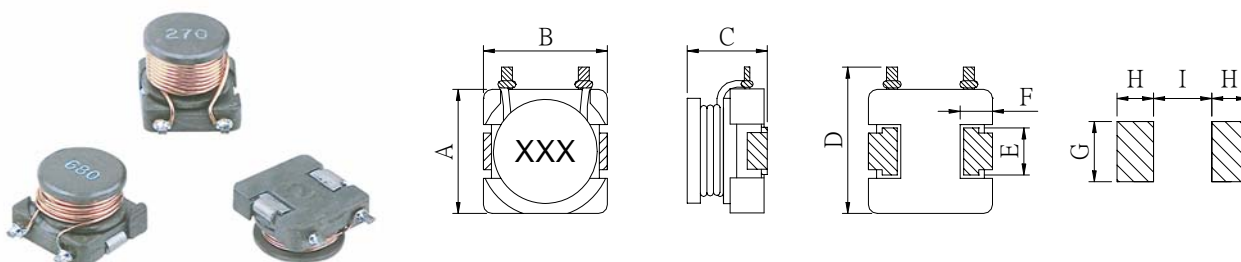
CSMB73 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMB73-1R0□	1.0	100	0.02	3.60
CSMB73-1R5□	1.5	100	0.03	3.40
CSMB73-2R2□	2.2	100	0.03	2.68
CSMB73-3R3□	3.3	100	0.04	2.40
CSMB73-4R7□	4.7	100	0.06	2.26
CSMB73-6R8□	6.8	100	0.08	1.66
CSMB73-100□	10	100	0.12	1.37
CSMB73-120□	12	100	0.14	1.12
CSMB73-150□	15	100	0.18	1.08
CSMB73-180□	18	100	0.20	1.04
CSMB73-220□	22	100	0.27	0.80
CSMB73-270□	27	100	0.32	0.77
CSMB73-330□	33	100	0.35	0.71
CSMB73-390□	39	100	0.48	0.62
CSMB73-470□	47	100	0.56	0.56
CSMB73-560□	56	100	0.63	0.54
CSMB73-680□	68	100	0.71	0.50
CSMB73-820□	82	100	0.97	0.43
CSMB73-101□	100	100	1.08	0.39

NOTE: □Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSMB104/105/107 Series

EXTERNAL DIMENSIONS (Unit: m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSMB104	11.3±0.3	11.3±0.3	6.5±0.5	13.4±0.5	4.0	3.0	4.5	3.3	5.2	29
CSMB105	11.3±0.3	11.3±0.3	7.8±0.5	13.4±0.5	4.0	3.0	4.5	3.3	5.2	29
CSMB107	11.3±0.3	11.3±0.3	9.5±0.5	13.4±0.5	4.0	3.0	4.5	3.3	5.2	30

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current whiC causes 10% inductance reduction of the initial value ,or coil temperature to rise by 40°C,whiCever is smaller.(Reference ambient temperature 20°C)
- Operating temperature : -25°C~ +85°C.

Features

- Low profile very effective in space-conscious applications.
- Low resistance and high energy storage.
- Supper low resistance with high current rating.

Applications

- Excellent as DC-DC Converter used in notebooks computers, PDA and mobile handphnes. Step-up or step-down converters, flash memory.

CSMB104/CSMB105 BSeries

CSMB104 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB104-100□	10	100	0.068	4.20	3.20
CSMB104-120□	12	100	0.070	4.00	3.00
CSMB104-150□	15	100	0.093	3.50	2.70
CSMB104-180□	18	100	0.098	3.40	2.50
CSMB104-220□	22	100	0.128	3.00	2.20
CSMB104-270□	27	100	0.148	2.80	2.00
CSMB104-330□	33	100	0.176	2.40	1.80
CSMB104-390□	39	100	0.232	2.10	1.70
CSMB104-470□	47	100	0.252	2.00	1.60
CSMB104-560□	56	100	0.276	1.90	1.50
CSMB104-680□	68	100	0.351	1.70	1.40
CSMB104-820□	82	100	0.395	1.50	1.30
CSMB104-101□	100	100	0.468	1.40	1.10
CSMB104-121□	120	100	0.568	1.30	1.00
CSMB104-151□	150	100	0.685	1.20	0.90
CSMB104-181□	180	100	0.824	1.10	0.85
CSMB104-221□	220	100	1.00	1.00	0.75
CSMB104-271□	270	100	1.23	0.90	0.70
CSMB104-331□	330	100	1.50	0.80	0.65
CSMB104-391□	390	100	1.71	0.70	0.60
CSMB104-471□	470	100	1.93	0.65	0.55
CSMB104-561□	560	100	2.35	0.60	0.50
CSMB104-681□	680	100	2.93	0.55	0.45
CSMB104-821□	820	100	3.34	0.50	0.40
CSMB104-102□	1000	100	4.15	0.45	0.36
CSMB104-122□	1200	100	4.98	0.40	0.32

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%.

CSMB105 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB105-100□	10	100	0.06	5.50	5.00
CSMB105-120□	12	100	0.07	5.20	4.60
CSMB105-150□	15	100	0.08	4.70	4.20
CSMB105-180□	18	100	0.09	4.30	3.80
CSMB105-220□	22	100	0.10	4.10	3.60
CSMB105-270□	27	100	0.11	3.80	3.30
CSMB105-330□	33	100	0.12	3.50	2.90
CSMB105-390□	39	100	0.14	3.00	2.50
CSMB105-470□	47	100	0.17	2.70	2.20
CSMB105-680□	68	100	0.22	2.50	2.00
CSMB105-820□	82	100	0.25	2.30	1.75
CSMB105-101□	100	100	0.35	2.20	1.64

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%.

CSMB105/CSMB107 Series

CSMB105 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB105-121□	120	100	0.40	1.85	1.34
CSMB105-151□	150	100	0.47	1.66	1.16
CSMB105-181□	180	100	0.63	1.56	1.05
CSMB105-221□	220	100	0.73	1.48	1.00
CSMB105-271□	270	100	0.97	1.40	0.92
CSMB105-331□	330	100	1.15	1.25	0.84
CSMB105-391□	390	100	1.30	1.13	0.77
CSMB105-471□	470	100	1.48	0.95	0.69
CSMB105-561□	560	100	1.90	0.90	0.62
CSMB105-681□	680	100	2.45	0.85	0.55
CSMB105-821□	820	100	2.55	0.75	0.51
CSMB105-102□	1000	100	3.00	0.65	0.47
CSMB105-122□	1200	100	3.50	0.55	0.41

NOTE: □Tolerance value : J = ±5%, K = ±10%, M = ±20%.

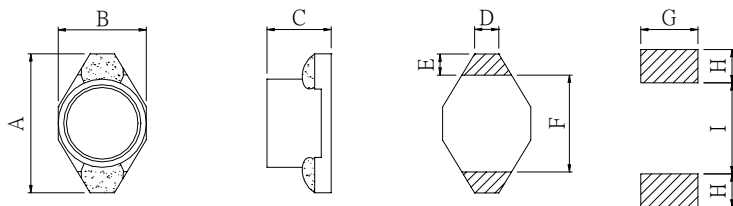
CSMB107 BSeries

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB107-100□	10	100	0.06	6.00	5.50
CSMB107-120□	12	100	0.07	5.50	4.80
CSMB107-150□	15	100	0.08	5.00	4.30
CSMB107-180□	18	100	0.09	4.50	4.10
CSMB107-220□	22	100	0.10	4.20	3.90
CSMB107-270□	27	100	0.11	4.00	3.50
CSMB107-330□	33	100	0.15	3.80	3.20
CSMB107-390□	39	100	0.18	3.30	2.80
CSMB107-470□	47	100	0.202	2.80	2.60
CSMB107-560□	56	100	0.216	2.70	2.40
CSMB107-680□	68	100	0.239	2.60	2.20
CSMB107-820□	82	100	0.286	2.40	2.00
CSMB107-101□	100	100	0.36	2.30	1.80
CSMB107-121□	120	100	0.45	1.90	1.50
CSMB107-151□	150	100	0.57	1.70	1.20
CSMB107-181□	180	100	0.65	1.60	1.10
CSMB107-221□	220	100	0.81	1.50	1.05
CSMB107-271□	270	100	0.99	1.46	0.95
CSMB107-331□	330	100	1.15	1.30	0.85
CSMB107-391□	390	100	1.35	1.20	0.80
CSMB107-471□	470	10	1.84	1.00	0.75
CSMB107-561□	560	10	2.24	0.96	0.70
CSMB107-681□	680	10	2.47	0.90	0.65
CSMB107-821□	820	10	3.00	0.80	0.60
CSMB107-102□	1000	10	3.34	0.70	0.52
CSMB107-122□	1200	10	4.00	0.60	0.45

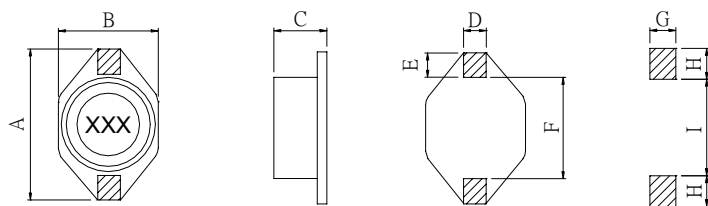
NOTE: □Tolerance value : J = ±5%, K = ±10%, M = ±20%.

CSMB0403R/0804R/1206R Series

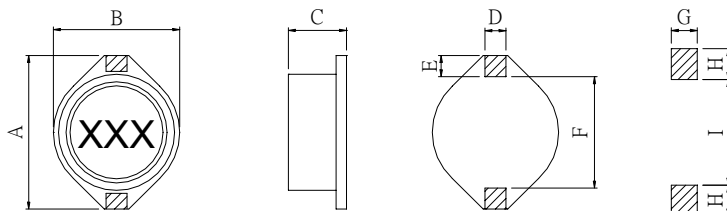
EXTERNAL DIMENSIONS (Unit : m/m)



CSMB0403R



CSMB0804R



CSMB1206R



Type	A	B	C	D	E	F	G	H	I	Page
CSMB0403R	6.6Max	4.45Max	2.92Max	1.27	1.0	4.32	2.64	1.14	4.57	34
CSMB0804R	12.95Max	9.4Max	5.08Max	2.54	2.54	7.62	2.79	2.92	7.37	34
CSMB1206R	18.54Max	15.24Max	7.11Max	2.54	2.54	12.7	2.79	2.92	12.45	35

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- 1. Maximum allowable DC current whIC causes 25% inductance reduction of the initial value , or coil temperature to rise by 30℃, whICever is smaller.(Reference ambient temperature 20℃)
- 2. Inductance drops 10% typical at Isat level with temperature rise under 30℃ in accordance with Irms measurement.
- 3. Inductance drops 15% typical at Isat level with temperature rise under 40℃ in accordance with Irms measurement.
- Operating temperature : -25℃~ +85℃.

Features

- Low profile and shielded very effective in space-conscious applications.
- Low resistance and high energy storage.

Applications

- Excellent as DC-DC converter used in notebooks computers, PDA and mobile handphnes. Step-up or step-down converters, flash memory.

CSMB0403R/0804R Series

CSMB0403R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	S.R.F. Typ. (MHz)	Rated DC Current (A)Max.
CSMB0403R-1R0□	1.0	100	0.052	250	3.00
CSMB0403R-1R5□	1.5	100	0.059	125	2.80
CSMB0403R-2R2□	2.2	100	0.065	120	1.80
CSMB0403R-3R3□	3.3	100	0.072	120	1.60
CSMB0403R-4R7□	4.7	100	0.078	105	1.40
CSMB0403R-6R8□	6.8	100	0.085	50	1.20
CSMB0403R-100□	10	100	0.098	38	1.00
CSMB0403R-150□	15	100	0.117	33	0.80
CSMB0403R-220□	22	100	0.221	25	0.70
CSMB0403R-330□	33	100	0.247	20	0.60
CSMB0403R-470□	47	100	0.349	20	0.50
CSMB0403R-680□	68	100	0.552	15	0.40
CSMB0403R-101□	100	100	0.785	10	0.30
CSMB0403R-151□	150	100	1.180	9	0.26
CSMB0403R-221□	220	100	1.640	6	0.22
CSMB0403R-331□	330	100	2.470	5	0.20
CSMB0403R-471□	470	100	3.700	4	0.19
CSMB0403R-681□	680	100	5.700	3	0.18
CSMB0403R-102□	1000	100	10.32	2	0.15

NOTE: □ Tolerance value : K= ±10%, M = ±20%, N = ±30%.

CSMB0804R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB0804R-1R0□	1.0	100	0.021	5.6	5.0
CSMB0804R-1R5□	1.5	100	0.022	5.2	4.5
CSMB0804R-2R2□	2.2	100	0.032	5.0	3.8
CSMB0804R-3R3□	3.3	100	0.039	3.9	3.3
CSMB0804R-4R7□	4.7	100	0.054	3.2	2.7
CSMB0804R-6R8□	6.8	100	0.075	2.8	2.2
CSMB0804R-100□	10	100	0.101	2.4	2.0
CSMB0804R-150□	15	100	0.150	2.0	1.5
CSMB0804R-220□	22	100	0.207	1.6	1.3
CSMB0804R-330□	33	100	0.334	1.4	1.1
CSMB0804R-470□	47	100	0.472	1.0	0.8
CSMB0804R-560□	56	100	0.650	0.9	0.7
CSMB0804R-680□	68	100	0.715	0.8	0.7

NOTE: □ Tolerance value : K= ±10%, M = ±20%, N = ±30%.

CSMB1206R Series

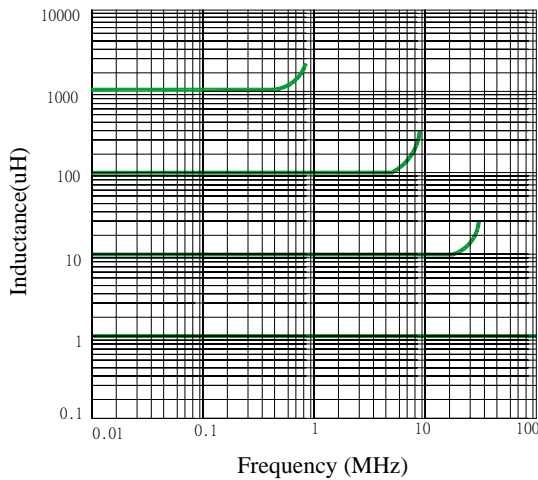
CSMB1206R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB1206R-100□	10	100	0.040	8.0	3.9
CSMB1206R-150□	15	100	0.048	7.0	3.4
CSMB1206R-220□	22	100	0.059	6.0	3.1
CSMB1206R-330□	33	100	0.075	5.0	2.8
CSMB1206R-470□	47	100	0.097	4.0	2.4
CSMB1206R-680□	68	100	0.138	3.0	2.0
CSMB1206R-101□	100	100	0.207	2.4	1.7
CSMB1206R-151□	150	100	0.293	2.1	1.3
CSMB1206R-221□	220	100	0.470	1.9	1.1
CSMB1206R-331□	330	100	0.780	1.1	0.86
CSMB1206R-471□	470	100	1.080	1.1	0.73
CSMB1206R-681□	680	100	1.400	0.96	0.64
CSMB1206R-102□	1000	100	2.010	0.80	0.53

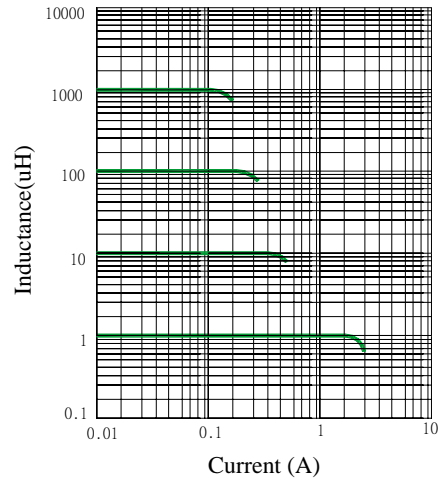
NOTE: □ Tolerance value : K= ±10%, M = ±20%, N = ±30%.

CSMB0403RB SERIES

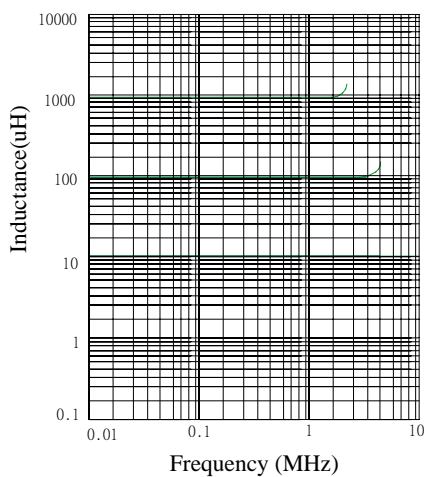
Typical L vs Frequency



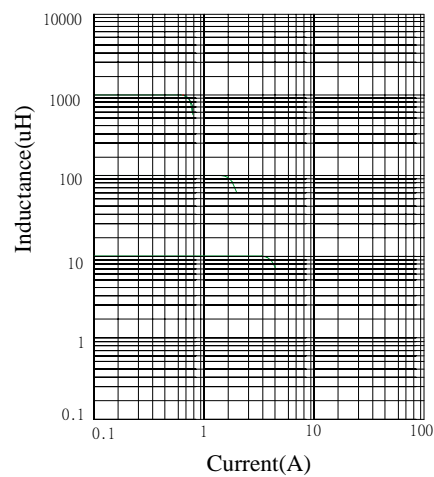
Typical L vs Current



Typical L vs Frequency

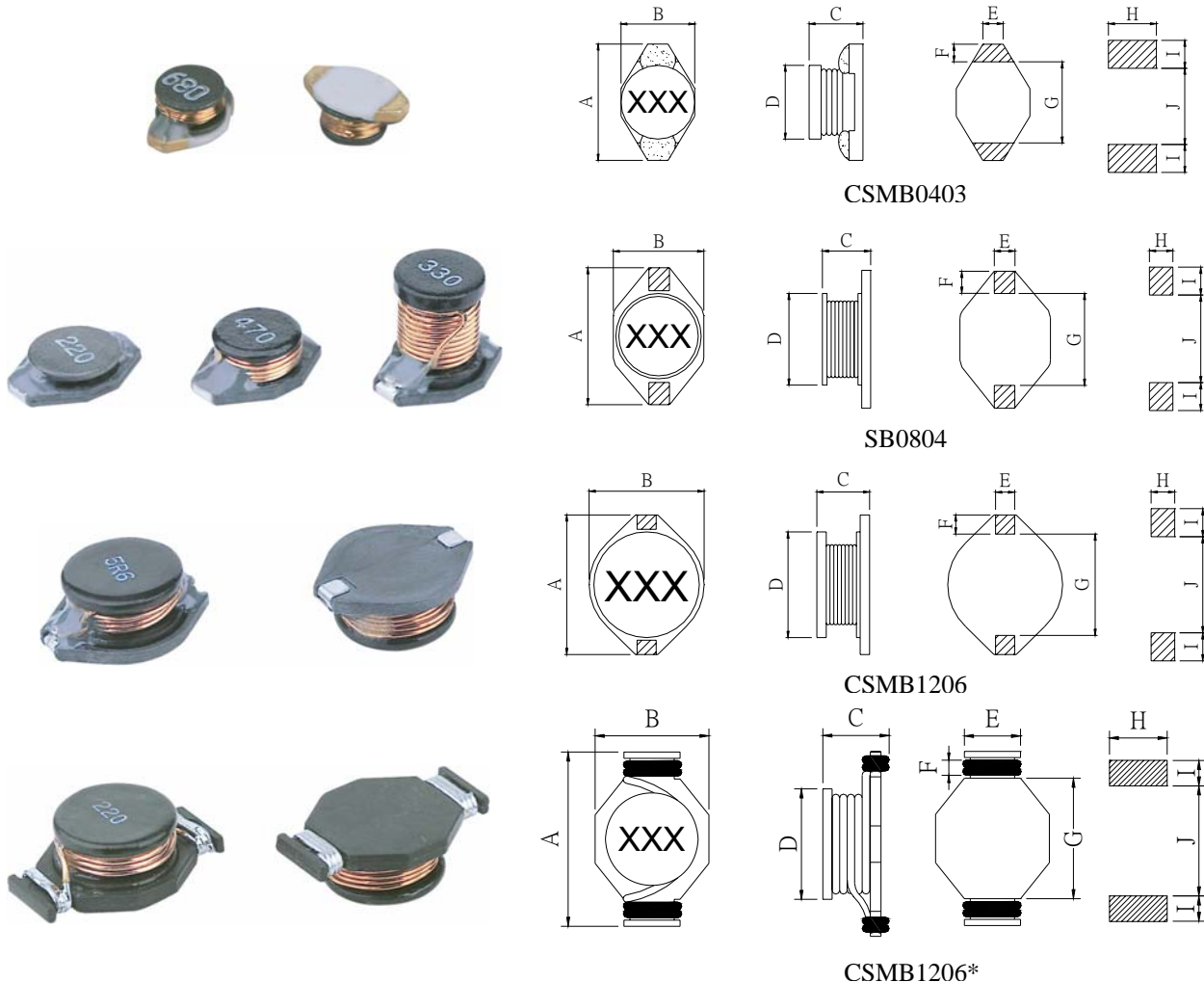


Typical L vs Current



CSMB0403~CSMB1206* Series

EXTERNAL DIMENSIONS (Unit: m/m)



CSMB1206*

Type	A	B	C	D	E	F	G	H	I	J	Page
CSMB0403	6.60Max	4.45Max	2.92Max	4.00	1.27	1.00	4.32	2.64	1.14	4.57	25
CSMB0802	12.95Max	9.40Max	3.0Max	8.38	2.54	2.54	7.62	2.79	2.92	7.37	25
CSMB0804	12.95Max	9.40Max	5.21Max	8.38	2.54	2.54	7.62	2.79	2.92	7.37	26
CSMB0810	12.95Max	9.40Max	11.43Max	8.38	2.54	2.54	7.62	2.79	2.92	7.37	26
CSMB1206	18.54Max	15.24Max	7.11Max	12.7	2.54	2.54	12.7	2.79	2.92	12.45	27
CSMB1206*	22.35Max	16.26Max	8.0Max	12.7	8.3	2.00	15.0	8.64	3.18	17.53	27

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- 1. Inductance drops 10% typical at Isat level with temperature rise under 30°C in accordance with Irms measurement.
- 2. Inductance drops 10% typical at Isat level with temperature rise under 40°C in accordance with Irms measurement.
- Operating temperature: -25°C ~ +85°C.

Features

- Low profile very effective in space-conscious applications.
- Low resistance and high energy storage.
- Supper low resistance with high current rating.

Applications

- Excellent as DC-DC Converter used in notebooks computers, PDA and mobile handphones. Step-up or step-down converters, flash memory.

CSMB0403/0802 Series

CSMB0403 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max	Irms (A)Max
CSMB0403-1R0□	1.0	100	0.06	2.90	2.00
CSMB0403-1R5□	1.5	100	0.06	2.60	1.80
CSMB0403-2R2□	2.2	100	0.07	2.30	1.60
CSMB0403-3R3□	3.3	100	0.08	2.00	1.40
CSMB0403-4R7□	4.7	100	0.135	1.50	1.00
CSMB0403-6R8□	6.8	100	0.16	1.20	0.84
CSMB0403-100□	10	100	0.20	1.10	0.77
CSMB0403-150□	15	100	0.31	0.90	0.63
CSMB0403-220□	22	100	0.43	0.70	0.49
CSMB0403-330□	33	100	0.51	0.58	0.40
CSMB0403-470□	47	100	0.84	0.50	0.35
CSMB0403-680□	68	100	1.22	0.40	0.28
CSMB0403-101□	100	100	1.77	0.31	0.21
CSMB0403-151□	150	100	2.40	0.27	0.18
CSMB0403-221□	220	100	3.76	0.22	0.15
CSMB0403-331□	330	100	5.71	0.18	0.13
CSMB0403-471□	470	100	7.80	0.16	0.11
CSMB0403-681□	680	100	11.23	0.14	0.10
CSMB0403-102□	1000	100	19.50	0.10	0.07

NOTE: □ Tolerance value : K = ±10%, M = ±20%.

CSMB0802 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB0802-100□	10	100	0.090	2.40	2.00
CSMB0802-150□	15	100	0.120	2.00	1.50
CSMB0802-220□	22	100	0.190	1.60	1.30
CSMB0802-330□	33	100	0.250	1.40	1.10
CSMB0802-470□	47	100	0.320	1.00	0.80
CSMB0802-560□	56	100	0.300	0.95	0.75
CSMB0802-680□	68	100	0.550	0.90	0.70
CSMB0802-101□	100	100	0.700	0.70	0.60
CSMB0802-151□	150	100	1.000	0.60	0.50
CSMB0802-221□	220	100	1.600	0.50	0.40
CSMB0802-331□	330	100	2.200	0.40	0.30
CSMB0802-471□	470	100	3.300	0.30	0.20
CSMB0802-681□	680	100	4.400	0.20	0.10
CSMB0802-102□	1000	100	7.000	0.10	0.05

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%.

CSMB0804/CSMB0810 Series

CSMB0804 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB0804-1R0□	1.0	100	0.009	9.00	6.80
CSMB0804-1R5□	1.5	100	0.010	8.00	6.40
CSMB0804-2R2□	2.2	100	0.012	7.00	6.10
CSMB0804-3R3□	3.3	100	0.015	6.40	5.40
CSMB0804-4R7□	4.7	100	0.018	5.40	4.80
CSMB0804-6R8□	6.8	100	0.027	4.60	4.40
CSMB0804-100□	10	100	0.038	3.80	3.90
CSMB0804-150□	15	100	0.049	3.00	3.10
CSMB0804-220□	22	100	0.085	2.60	2.70
CSMB0804-330□	33	100	0.100	2.00	2.10
CSMB0804-470□	47	100	0.140	1.60	1.80
CSMB0804-560□	56	100	0.162	1.50	1.70
CSMB0804-680□	68	100	0.200	1.40	1.50
CSMB0804-101□	100	100	0.280	1.20	1.30
CSMB0804-151□	150	100	0.400	1.00	1.00
CSMB0804-221□	220	100	0.610	0.80	0.80
CSMB0804-331□	330	100	1.020	0.60	0.60
CSMB0804-471□	470	100	1.270	0.50	0.50
CSMB0804-681□	680	100	2.020	0.40	0.40
CSMB0804-102□	1000	100	3.000	0.30	0.30

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%.

CSMB0810 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB0810-1R0□	1.0	100	0.010	11.60	6.80
CSMB0810-1R5□	1.5	100	0.010	11.00	6.60
CSMB0810-2R2□	2.2	100	0.013	10.50	6.10
CSMB0810-2R7□	2.7	100	0.014	10.00	5.60
CSMB0810-100□	10	100	0.033	8.00	3.50
CSMB0810-150□	15	100	0.042	7.00	3.00
CSMB0810-220□	22	100	0.054	5.50	2.50
CSMB0810-330□	33	100	0.080	4.00	2.00
CSMB0810-470□	47	100	0.100	3.80	1.60
CSMB0810-680□	68	100	0.170	3.00	1.20
CSMB0810-101□	100	100	0.220	2.50	1.20
CSMB0810-151□	150	100	0.340	2.00	0.90
CSMB0810-221□	220	100	0.440	1.60	0.70
CSMB0810-331□	330	100	0.700	1.20	0.60
CSMB0810-471□	470	100	0.950	1.00	0.30
CSMB0810-681□	680	100	1.200	1.00	0.20
CSMB0810-102□	1000	100	2.000	0.80	0.10

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%

CSMB1206/CSMB1206* Series

CSMB1206Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB1206-1R0□	1.0	100	0.009	20	8.60
CSMB1206-2R2□	2.2	100	0.014	16	7.10
CSMB1206-3R3□	3.3	100	0.018	14	6.20
CSMB1206-5R6□	5.6	100	0.020	12	5.30
CSMB1206-100□	10	100	0.031	10	4.30
CSMB1206-150□	15	100	0.036	8.0	4.00
CSMB1206-220□	22	100	0.047	7.0	3.50
CSMB1206-330□	33	100	0.066	5.5	3.00
CSMB1206-470□	47	100	0.086	4.5	2.60
CSMB1206-680□	68	100	0.130	3.5	2.30
CSMB1206-101□	100	100	0.190	3.0	1.80
CSMB1206-151□	150	100	0.250	2.6	1.50
CSMB1206-221□	220	100	0.380	2.4	1.20
CSMB1206-331□	330	100	0.560	1.9	1.00
CSMB1206-471□	470	100	0.850	1.4	0.82
CSMB1206-681□	680	100	1.100	1.2	0.72
CSMB1206-102□	1000	100	1.800	1.0	0.56

NOTE: □ Tolerance value : J = ±5%, K = ±10%, M = ±20%.

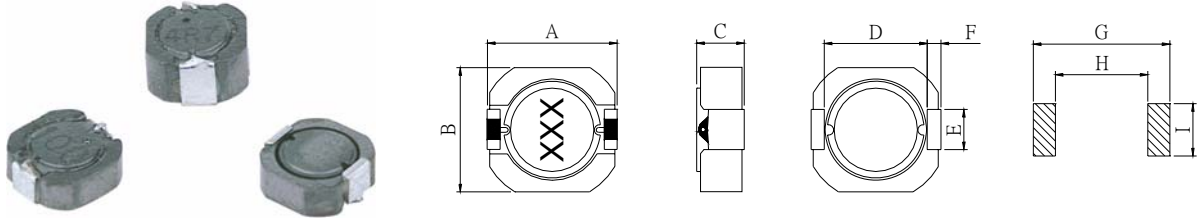
CSMB1206* Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB1206*-R78□	0.78	100	0.0022	30.0	21.0
CSMB1206*-1R2□	1.2	100	0.0035	27.0	19.0
CSMB1206*-1R5□	1.5	100	0.0040	24.0	18.0
CSMB1206*-2R2□	2.2	100	0.0061	20.0	15.0
CSMB1206*-3R3□	3.3	100	0.0072	17.0	13.0
CSMB1206*-3R9□	3.9	100	0.010	15.0	12.0
CSMB1206*-4R7□	4.7	100	0.011	13.0	10.0
CSMB1206*-6R0□	6.0	100	0.014	12.0	9.0
CSMB1206*-6R8□	6.8	100	0.016	11.5	8.7
CSMB1206*-7R8□	7.8	100	0.017	11.0	8.5
CSMB1206*-100□	10.0	100	0.023	10.0	7.5
CSMB1206*-150□	15.0	100	0.034	8.0	7.0
CSMB1206*-220□	22.0	100	0.045	7.0	6.0

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSMC62R~63R Series

EXTERNAL DIMENSIONS (Unit: m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSMC62R	6.3Max	6.2Max	2.0Max	4.8	2.0	0.6	6.6	4.6	2.6	47
CSMC625R	6.3Max	6.2Max	2.5Max	4.8	2.0	0.6	6.6	4.6	2.6	47
CSMC63R	6.3Max	6.2Max	3.0Max	4.8	2.0	0.6	6.6	4.6	2.6	48
CSMC635R	6.3Max	6.2Max	3.5Max	4.8	2.0	0.6	6.6	4.6	2.6	48

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current which causes 30% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)
- Operating temperature : -25°C ~ +85°C.

Features

- Low profile and square.
- Magnetically shielded and low DC resistance.
- Suitable for large currents.
- Available on tape and reel for auto-insertion.

Applications

- Ideal use in variety of DC-DC converter inductor applications.

CSMC62R/CSMC625R Series

CSMC62R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Isat (A)Max.	Irms (A)Max.
CSMC62R-1R2□	1.2	100	29.8	3.50	3.30
CSMC62R-1R5□	1.5	100	42.3	2.94	2.99
CSMC62R-2R0□	2.0	100	45.6	2.47	2.33
CSMC62R-3R3□	3.3	100	68	1.99	1.97
CSMC62R-4R7□	4.7	100	86	1.59	1.54
CSMC62R-6R2□	6.2	100	112	1.49	1.45
CSMC62R-8R2□	8.2	100	138	1.25	1.23
CSMC62R-100□	10	100	172	1.22	1.09
CSMC62R-120□	12	100	190	0.99	1.10
CSMC62R-150□	15	100	248	0.94	0.82
CSMC62R-180□	18	100	264	0.83	0.80
CSMC62R-220□	22	100	330	0.80	0.74
CSMC62R-270□	27	100	364	0.65	0.65
CSMC62R-330□	33	100	560	0.63	0.56
CSMC62R-390□	39	100	580	0.55	0.56
CSMC62R-470□	47	100	690	0.50	0.52

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMC625R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Isat (A)Max.	Irms (A)Max.
CSMC625R-R82□	0.82	100	13	3.48	3.84
CSMC625R-1R2□	1.2	100	18	2.83	3.40
CSMC625R-1R8□	1.8	100	23	2.44	3.10
CSMC625R-2R7□	2.7	100	33	1.89	2.55
CSMC625R-3R3□	3.3	100	43	1.65	2.23
CSMC625R-5R6□	5.6	100	57	1.37	1.85
CSMC625R-100□	10	100	97	1.07	1.48
CSMC625R-120□	12	100	116	0.97	1.35
CSMC625R-150□	15	100	144	0.87	1.24
CSMC625R-180□	18	100	163	0.79	1.11
CSMC625R-220□	22	100	179	0.71	1.00
CSMC625R-270□	27	100	246	0.64	0.86
CSMC625R-330□	33	100	304	0.58	0.80
CSMC625R-390□	39	100	341	0.53	0.70
CSMC625R-470□	47	100	367	0.48	0.63
CSMC625R-560□	56	100	438	0.44	0.58
CSMC625R-680□	68	100	491	0.40	0.53
CSMC625R-820□	82	100	596	0.36	0.49
CSMC625R-101□	100	100	917	0.33	0.43

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMC63R/CSMC635R Series

CSMC63R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Isat (A)Max.	Irms (A)Max.
CSMC63R-1R0□	1.0	100	13	3.59	4.03
CSMC63R-1R5□	1.5	100	18	2.93	3.63
CSMC63R-2R2□	2.2	100	21	2.42	3.30
CSMC63R-3R3□	3.3	100	27	1.89	2.83
CSMC63R-4R7□	4.7	100	39	1.66	2.45
CSMC63R-6R2□	6.2	100	53	1.45	2.20
CSMC63R-100□	10	100	79	1.14	1.77
CSMC63R-120□	12	100	94	1.04	1.70
CSMC63R-150□	15	100	115	0.93	1.55
CSMC63R-180□	18	100	130	0.85	1.41
CSMC63R-220□	22	100	145	0.77	1.23
CSMC63R-270□	27	100	157	0.70	1.08
CSMC63R-330□	33	100	211	0.63	0.99
CSMC63R-390□	39	100	233	0.58	0.95
CSMC63R-470□	47	100	276	0.53	0.84
CSMC63R-560□	56	100	308	0.48	0.76
CSMC63R-680□	68	100	330	0.44	0.69
CSMC63R-820□	82	100	445	0.40	0.61
CSMC63R-101□	100	100	540	0.36	0.54
CSMC63R-151□	150	100	700	0.31	0.42

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

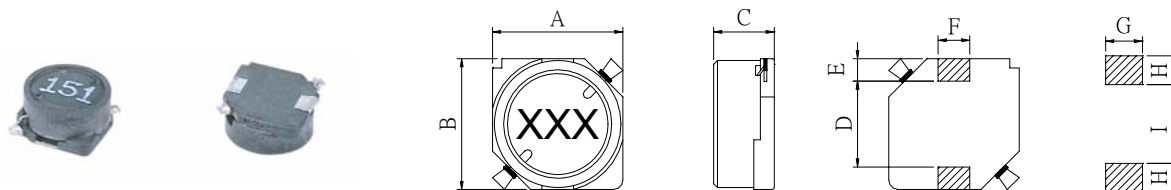
CSMC635R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Isat (A)Max.	Irms (A)Max.
CSMC635R-2R0□	2.0	100	22	3.00	3.31
CSMC635R-2R7□	2.7	100	24	2.69	3.12
CSMC635R-3R3□	3.3	100	27	2.57	2.81
CSMC635R-4R7□	4.7	100	36	2.08	2.51
CSMC635R-6R8□	6.8	100	46	1.84	2.41
CSMC635R-8R2□	8.2	100	52	1.54	2.11
CSMC635R-100□	10	100	59	1.49	1.97
CSMC635R-120□	12	100	70	1.28	1.73
CSMC635R-150□	15	100	91	1.10	1.54
CSMC635R-180□	18	100	104	1.05	1.52
CSMC635R-220□	22	100	148	0.97	1.29
CSMC635R-270□	27	100	158	0.82	1.11
CSMC635R-330□	33	100	173	0.76	1.02
CSMC635R-390□	39	100	205	0.70	0.96
CSMC635R-470□	47	100	226	0.68	0.89
CSMC635R-560□	56	100	275	0.60	0.80
CSMC635R-680□	68	100	321	0.56	0.71
CSMC635R-820□	82	100	369	0.47	0.61
CSMC635R-101□	100	100	495	0.45	0.57
CSMC635R-151□	150	100	640	0.37	0.48

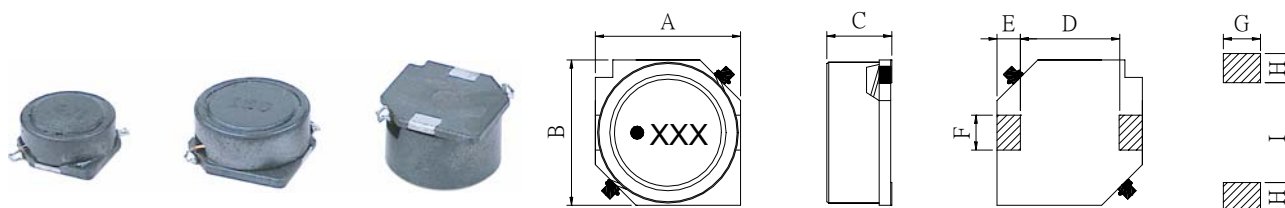
NOTE: □ Tolerance value : M = ±20%, N = ±30%

CSMB0703R~CSMB12575 Series

EXTERNAL DIMENSIONS (Unit: m/m)



CSMB0703R/CSMB0704R/CSMB10145R



CSMB12555R/CSMB12565R/CSMB12575R

Type	A	B	C	D	E	F	G	H	I	Page
CSMB0703R	7.6Max	7.6Max	3.9Max	4.6	1.2	1.7	2.7	2.0	4.4	37
CSMB0704R	7.6Max	7.6Max	5.2Max	4.6	1.2	1.7	2.7	2.0	4.4	37
CSMB10145R	10.1±0.3	10.1±0.3	4.5±0.3	6.0±0.2	2.0±0.15	3.0±0.1	3.2	2.5	5.6	38
CSMB12555R	12.5±0.3	12.5±0.3	5.5±0.3	8.6±0.3	2.0±0.15	3.0±0.1	3.2	2.5	8.6	38
CSMB12565R	12.5±0.3	12.5±0.3	6.5±0.35	8.6±0.3	2.0±0.15	3.0±0.1	3.2	2.5	8.6	39
CSMB12575R	12.5±0.3	12.5±0.3	7.5±0.35	8.6±0.3	2.0±0.15	3.0±0.1	3.2	2.5	8.6	39

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current which causes 10% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)
- Operating temperature : -25°C ~ +85°C.

Features

- Magnetic shielded surface mount inductor with high current rating.
- Low profile and shielded very effective in space-conscious applications.
- Low resistance to deep power loss minimum.

Applications

- Excellent for power line DC-DC conversion applications used in hard disk, notebook computers and other electronic equipment

CSMB0703R/CSMB0704R Series

CSM0703R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMB0703R-3R3□	3.3	100	0.025	1.92
CSMB0703R-4R7□	4.7	100	0.033	1.59
CSMB0703R-6R8□	6.8	100	0.044	1.37
CSMB0703R-100□	10	100	0.055	1.11
CSMB0703R-150□	15	100	0.087	0.92
CSMB0703R-220□	22	100	0.114	0.74
CSMB0703R-330□	33	100	0.170	0.61
CSMB0703R-470□	47	100	0.213	0.50
CSMB0703R-680□	68	100	0.355	0.43
CSMB0703R-101□	100	100	0.447	0.32
CSMB0703R-151□	150	100	0.644	0.28
CSMB0703R-221□	220	100	1.120	0.23
CSMB0703R-331□	330	100	1.650	0.20
CSMB0703R-471□	470	100	2.370	0.16

NOTE: □ Tolerance value : K = ±10%, L = ±15%, M = ±20%.

CSMB0704R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMB0704R-1R0□	1.0	100	0.020	2.80
CSMB0704R-1R5□	1.5	100	0.024	2.59
CSMB0704R-2R2□	2.2	100	0.028	2.38
CSMB0704R-3R3□	3.3	100	0.034	2.14
CSMB0704R-4R7□	4.7	100	0.039	1.96
CSMB0704R-6R8□	6.8	100	0.050	1.79
CSMB0704R-100□	10	100	0.055	1.63
CSMB0704R-120□	12	100	0.073	1.42
CSMB0704R-150□	15	100	0.081	1.33
CSMB0704R-180□	18	100	0.102	1.15
CSMB0704R-220□	22	100	0.115	1.09
CSMB0704R-270□	27	100	0.159	0.91
CSMB0704R-330□	33	100	0.182	0.84
CSMB0704R-390□	39	100	0.199	0.80
CSMB0704R-470□	47	100	0.221	0.75
CSMB0704R-560□	56	100	0.306	0.64
CSMB0704R-680□	68	100	0.345	0.60
CSMB0704R-820□	82	100	0.390	0.57
CSMB0704R-101□	100	100	0.432	0.50
CSMB0704R-121□	120	100	0.440	0.47
CSMB0704R-151□	150	100	0.730	0.40
CSMB0704R-181□	180	100	0.780	0.39
CSMB0704R-221□	220	100	0.940	0.33
CSMB0704R-271□	270	100	1.250	0.31
CSMB0704R-331□	330	100	1.400	0.27
CSMB0704R-391□	390	100	1.520	0.27
CSMB0704R-471□	470	100	1.700	0.25
CSMB0704R-561□	560	100	2.390	0.22

NOTE: □ Tolerance value : K = ±10%, L = ±15%, M = ±20%.

CSMB10145R/CSMB12555R Series

CSMB10145R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB10145R-100□	10	10	0.0436	3.0	2.5
CSMB10145R-150□	15	10	0.0566	2.4	2.2
CSMB10145R-220□	22	10	0.0709	2.1	1.9
CSMB10145R-330□	33	10	0.0978	1.6	1.7
CSMB10145R-470□	47	10	0.120	1.4	1.5
CSMB10145R-680□	68	10	0.168	1.2	1.3
CSMB10145R-101□	100	10	0.240	1.0	1.1
CSMB10145R-151□	150	10	0.420	0.79	0.81
CSMB10145R-221□	220	10	0.564	0.65	0.70
CSMB10145R-331□	330	10	0.816	0.54	0.58
CSMB10145R-471□	470	10	1.236	0.47	0.47
CSMB10145R-681□	680	10	1.96	0.38	0.38
CSMB10145R-102□	1000	10	3.36	0.32	0.29
CSMB10145R-152□	1500	10	4.08	0.22	0.26

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSMB12555R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB12555R-6R3□	6.3	10	0.0196	3.60	4.90
CSMB12555R-100□	10	10	0.0258	3.40	4.30
CSMB12555R-150□	15	10	0.0310	2.80	3.90
CSMB12555R-220□	22	10	0.0456	2.30	3.40
CSMB12555R-330□	33	10	0.0564	1.90	3.10
CSMB12555R-470□	47	10	0.0741	1.60	2.50
CSMB12555R-680□	68	10	0.119	1.30	2.20
CSMB12555R-101□	100	10	0.164	1.10	1.80
CSMB12555R-151□	150	10	0.265	0.88	1.40
CSMB12555R-221□	220	10	0.324	0.72	1.20
CSMB12555R-331□	330	10	0.492	0.59	1.00
CSMB12555R-471□	470	10	0.744	0.49	0.88
CSMB12555R-681□	680	10	1.06	0.43	0.73
CSMB12555R-102□	1000	10	1.52	0.34	0.60
CSMB12555R-152□	1500	10	2.23	0.29	0.48

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSMB12565R/CSMB12575R Series

CSMB12565R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB12565R-2R0□	2.0	10	0.0140	10.0	6.2
CSMB12565R-4R2□	4.2	10	0.0180	7.3	5.5
CSMB12565R-7R0□	7.0	10	0.0212	5.7	5.0
CSMB12565R-100□	10	10	0.0242	5.0	4.8
CSMB12565R-150□	15	10	0.0284	4.2	4.4
CSMB12565R-220□	22	10	0.0379	3.5	3.8
CSMB12565R-330□	33	10	0.0487	2.8	3.4
CSMB12565R-470□	47	10	0.0693	2.4	2.8
CSMB12565R-680□	68	10	0.0944	2.0	2.4
CSMB12565R-101□	100	10	0.147	1.6	1.9
CSMB12565R-221□	220	10	0.327	1.0	1.2

NOTE: □Tolerance value : K = ±10%, M = ±20%, N = ±30%.

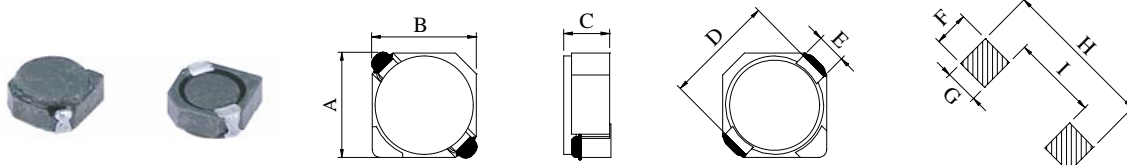
CSMB12575R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Isat (A)Max.	Irms (A)Max.
CSMB12575R-1R2□	1.2	10	0.0083	13.0	8.2
CSMB12575R-2R7□	2.7	10	0.0113	10.0	7.0
CSMB12575R-3R9□	3.9	10	0.0125	9.0	6.7
CSMB12575R-5R6□	5.6	10	0.0139	7.8	6.3
CSMB12575R-6R8□	6.8	10	0.0157	7.2	5.9
CSMB12575R-100□	10	10	0.0187	5.5	5.4
CSMB12575R-150□	15	10	0.0221	4.7	5.0
CSMB12575R-220□	22	10	0.0316	4.0	4.0
CSMB12575R-330□	33	10	0.0474	3.2	3.4
CSMB12575R-470□	47	10	0.0634	2.7	3.0
CSMB12575R-680□	68	10	0.0934	2.0	2.4
CSMB12575R-101□	100	10	0.150	1.9	1.9
CSMB12575R-151□	150	10	0.210	1.5	1.6
CSMB12575R-221□	220	10	0.310	1.3	1.3

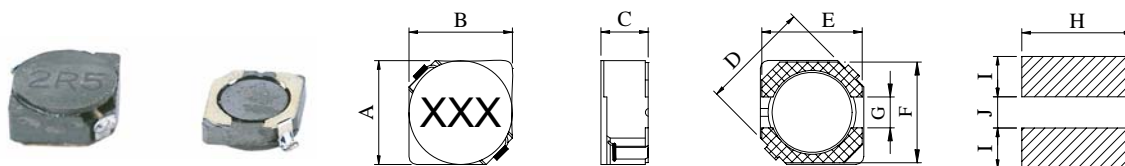
NOTE: □Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSMS2D11R~CSMS8D43R Series

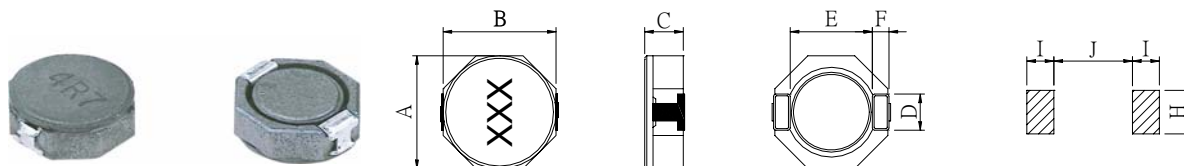
EXTERNAL DIMENSIONS (Unit: m/m)



CSMS3D16R



CSMS4D18R/CSMS4D28R/CSMS5D18R/CSMS5D28R/CSMS6D28R/CSMS6D38R



CSMS8D28R/CSMS8D43R

Type	A	B	C	D	E	F	G	H	I	J
CSMS2D11R	3.2Max	3.2Max	1.3Max	4.5Max	1.0	1.3	1.3	4.3	1.7	
CSMS3D16R	4.0Max	4.0Max	1.8Max	5.2Max	1.1	1.5	1.4	5.2	2.4	
CSMS4D18R	5.0Max	5.0Max	2.0Max	6.9Max	4.5	4.5	1.5	5.3	1.9	1.5
CSMS4D28R	5.0Max	5.0Max	3.0Max	6.9Max	4.5	4.5	1.5	5.3	1.9	1.5
CSMS5D18R	6.0Max	6.0Max	2.0Max	8.2Max	5.5	5.5	2.0	6.3	2.15	2.0
CSMS5D28R	5.7Max	5.7Max	3.0Max	8.2Max	5.5	5.5	2.0	6.3	2.15	2.0
CSMS6D28R	7.0Max	7.0Max	3.0Max	9.5Max	6.5	6.5	2.0	7.3	2.65	2.0
CSMS6D38R	7.0Max	7.0Max	4.0Max	9.5Max	6.5	6.5	2.0	7.3	2.65	2.0
CSMS8D28R	8.3Max	8.3Max	3.0Max	2.5	6.3	1.2		2.8	2.0	6.1
CSMS8D43R	8.3Max	8.3Max	4.5Max	2.5	6.3	1.2		2.8	2.0	6.1

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current which causes 35% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)
- Operating temperature : -25°C ~ +85°C.

Features

- Low profile and square.
- Magnetically shielded and low DC resistance.
- Suitable for large currents.
- Excellent solderability and high heat resistance.
- Low cost and packed in embossed carrier tape.

Applications

- Ideal use in notebook, hard disk, DC/DC converters, digital camera, LIC television set, and other electronic equipment.

CSMS2D11R~CSMS4D18R Series

CSMS3D16R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMS2D11R-1R5□	1.5	200	0.054	1.55
CSMS2D11R-2R2□	2.2	200	0.072	1.20
CSMS2D11R-3R3□	3.3	200	0.105	1.03
CSMS2D11R-4R7□	4.7	200	0.132	0.95
CSMS2D11R-100□	10	200	0.148	0.75
CSMS2D11R-220□	22	200	0.195	0.73

NOTE: □ Tolerance value : M = ±20%, N = ±30%

CSMS3D16R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMS3D16R-1R0□	1.0	100	0.048	1.80
CSMS3D16R-1R5□	1.5	100	0.054	1.55
CSMS3D16R-2R2□	2.2	100	0.072	1.20
CSMS3D16R-3R3□	3.3	100	0.105	1.03
CSMS3D16R-3R9□	3.9	100	0.118	1.02
CSMS3D16R-4R7□	4.7	100	0.132	0.95
CSMS3D16R-5R6□	5.6	100	0.148	0.75
CSMS3D16R-6R8□	6.8	100	0.195	0.73
CSMS3D16R-8R2□	8.2	100	0.250	0.65
CSMS3D16R-100□	10	100	0.275	0.58
CSMS3D16R-120□	12	100	0.312	0.50
CSMS3D16R-150□	15	100	0.412	0.46
CSMS3D16R-180□	18	100	0.462	0.43
CSMS3D16R-220□	22	100	0.600	0.40
CSMS3D16R-270□	27	100	0.712	0.35
CSMS3D16R-330□	33	100	0.925	0.32
CSMS3D16R-390□	39	100	1.062	0.28
CSMS3D16R-470□	47	100	1.175	0.26

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMS4D18R Series

CSMS4D18R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMS4D18R-1R0□	1.0	100	0.034	1.72
CSMS4D18R-2R2□	2.2	100	0.045	1.32
CSMS4D18R-2R7□	2.7	100	0.058	1.28
CSMS4D18R-3R3□	3.3	100	0.070	1.04
CSMS4D18R-3R9□	3.9	100	0.082	0.88
CSMS4D18R-4R7□	4.7	100	0.093	0.84
CSMS4D18R-5R6□	5.6	100	0.112	0.80
CSMS4D18R-6R8□	6.8	100	0.140	0.76
CSMS4D18R-8R2□	8.2	100	0.174	0.68
CSMS4D18R-100□	10	100	0.200	0.61
CSMS4D18R-120□	12	100	0.229	0.56
CSMS4D18R-150□	15	100	0.261	0.50
CSMS4D18R-180□	18	100	0.295	0.48
CSMS4D18R-220□	22	100	0.397	0.41
CSMS4D18R-270□	27	100	0.441	0.35
CSMS4D18R-330□	33	100	0.525	0.32
CSMS4D18R-390□	39	100	0.60	0.30
CSMS4D18R-470□	47	100	0.72	0.28
CSMS4D18R-560□	56	100	0.83	0.25
CSMS4D18R-680□	68	100	0.97	0.23
CSMS4D18R-820□	82	100	1.53	0.21
CSMS4D18R-101□	100	100	1.68	0.20
CSMS4D18R-121□	120	100	2.06	0.19
CSMS4D18R-151□	150	100	2.58	0.17
CSMS4D18R-181□	180	100	2.95	0.16
CSMS4D18R-221□	220	100	4.17	0.15
CSMS4D18R-271□	270	100	4.70	0.13
CSMS4D18R-331□	330	100	5.37	0.12
CSMS4D18R-391□	390	100	8.91	0.11

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMS4D18R/CSMS4D28R Series

CSMS4D28R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMS4D28R-1R0□	1.0	100	25.3m	2.56
CSMS4D28R-1R5□	1.5	100	31.8m	2.38
CSMS4D28R-1R8□	1.8	100	36.9m	2.20
CSMS4D28R-2R7□	2.7	100	50.4m	1.60
CSMS4D28R-3R3□	3.3	100	57.6m	1.57
CSMS4D28R-3R9□	3.9	100	66.4m	1.44
CSMS4D28R-4R7□	4.7	100	72.0m	1.32
CSMS4D28R-5R6□	5.6	100	80.0m	1.17
CSMS4D28R-6R8□	6.8	100	92.0m	1.12
CSMS4D28R-8R2□	8.2	100	98.0m	1.04
CSMS4D28R-100□	10	100	103m	1.00
CSMS4D28R-120□	12	100	128m	0.84
CSMS4D28R-150□	15	100	144m	0.76
CSMS4D28R-180□	18	100	186m	0.72
CSMS4D28R-220□	22	100	218m	0.70
CSMS4D28R-270□	27	100	252m	0.58
CSMS4D28R-330□	33	100	285m	0.56
CSMS4D28R-390□	39	100	408m	0.50
CSMS4D28R-470□	47	100	440m	0.48
CSMS4D28R-560□	56	100	550m	0.41
CSMS4D28R-680□	68	100	620m	0.35
CSMS4D28R-820□	82	100	920m	0.32
CSMS4D28R-101□	100	100	1.03	0.29
CSMS4D28R-121□	120	100	1.52	0.27
CSMS4D28R-151□	150	100	1.68	0.24
CSMS4D28R-181□	180	100	1.90	0.22

NOTE: □ Tolerance value : M = ±20%, N = ±30%

CSMS5D18R/CSMS5D28R Series

CSMS5D18R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMS5D18R-1R0□	1.0	10	0.028	3.86
CSMS5D18R-1R5□	1.5	10	0.036	3.12
CSMS5D18R-2R2□	2.2	10	0.043	2.63
CSMS5D18R-2R7□	2.7	10	0.051	2.38
CSMS5D18R-3R5□	3.5	10	0.063	1.95
CSMS5D18R-4R7□	4.7	10	0.072	1.76
CSMS5D18R-5R6□	5.6	10	0.083	1.60
CSMS5D18R-6R8□	6.8	10	0.102	1.40
CSMS5D18R-8R2□	8.2	10	0.116	1.25
CSMS5D18R-100□	10	10	0.124	1.20
CSMS5D18R-120□	12	10	0.162	1.10
CSMS5D18R-150□	15	10	0.204	0.97
CSMS5D18R-180□	18	10	0.226	0.85
CSMS5D18R-220□	22	10	0.265	0.80
CSMS5D18R-270□	27	10	0.320	0.75
CSMS5D18R-330□	33	10	0.380	0.65
CSMS5D18R-390□	39	10	0.496	0.57
CSMS5D18R-470□	47	10	0.525	0.54
CSMS5D18R-560□	56	10	0.795	0.50
CSMS5D18R-680□	68	10	0.860	0.43
CSMS5D18R-820□	82	10	0.980	0.41
CSMS5D18R-101□	100	10	1.250	0.36

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMS5D28R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max.
CSMS5D28R-2R5□	2.5	10	0.018	2.60
CSMS5D28R-3R0□	3.0	10	0.024	2.40
CSMS5D28R-4R2□	4.2	10	0.031	2.20
CSMS5D28R-5R3□	5.3	10	0.038	1.90
CSMS5D28R-6R2□	6.2	10	0.045	1.80
CSMS5D28R-8R2□	8.2	10	0.053	1.60
CSMS5D28R-100□	10	10	0.065	1.30
CSMS5D28R-120□	12	10	0.076	1.20
CSMS5D28R-150□	15	10	0.103	1.10
CSMS5D28R-180□	18	10	0.110	1.00
CSMS5D28R-220□	22	10	0.112	0.90
CSMS5D28R-270□	27	10	0.175	0.85
CSMS5D28R-330□	33	10	0.189	0.75
CSMS5D28R-390□	39	10	0.212	0.70
CSMS5D28R-470□	47	10	0.250	0.62
CSMS5D28R-560□	56	10	0.305	0.58
CSMS5D28R-680□	68	10	0.355	0.52
CSMS5D28R-820□	82	10	0.463	0.46
CSMS5D28R-101□	100	10	0.520	0.42

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMS6D28R/CSMS6D38R Series

CSMS6D28R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Rated DC Current (A)Max.
CSMS6D28R-3R0□	3.0	10	24	3.00
CSMS6D28R-3R9□	3.9	10	27	2.60
CSMS6D28R-5R0□	5.0	10	31	2.40
CSMS6D28R-6R0□	6.0	10	35	2.25
CSMS6D28R-7R3□	7.3	10	54	2.10
CSMS6D28R-8R6□	8.6	10	58	1.85
CSMS6D28R-100□	10	10	65	1.70
CSMS6D28R-120□	12	10	70	1.55
CSMS6D28R-150□	15	10	84	1.40
CSMS6D28R-180□	18	10	95	1.32
CSMS6D28R-220□	22	10	128	1.20
CSMS6D28R-270□	27	10	142	1.05
CSMS6D28R-330□	33	10	165	0.97
CSMS6D28R-390□	39	10	210	0.86
CSMS6D28R-470□	47	10	238	0.80
CSMS6D28R-560□	56	10	277	0.73
CSMS6D28R-680□	68	10	304	0.65
CSMS6D28R-820□	82	10	390	0.60
CSMS6D28R-101□	100	10	535	0.54

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMS6D38R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Rated DC Current (A)Max.
CSMS6D38R-3R3□	3.3	10	20	3.20
CSMS6D38R-5R0□	5.0	10	24	2.60
CSMS6D38R-6R2□	6.2	10	27	2.30
CSMS6D38R-7R4□	7.4	10	31	2.10
CSMS6D38R-8R7□	8.7	10	34	2.00
CSMS6D38R-100□	10	10	44	1.80
CSMS6D38R-120□	12	10	53	1.70
CSMS6D38R-150□	15	10	57	1.45
CSMS6D38R-180□	18	10	92	1.40
CSMS6D38R-220□	22	10	96	1.20
CSMS6D38R-270□	27	10	109	1.10
CSMS6D38R-330□	33	10	124	1.00
CSMS6D38R-390□	39	10	138	0.95
CSMS6D38R-470□	47	10	155	0.85
CSMS6D38R-560□	56	10	202	0.75
CSMS6D38R-680□	68	10	234	0.70
CSMS6D38R-820□	82	10	324	0.62
CSMS6D38R-101□	100	10	358	0.58

NOTE: □ Tolerance value : M = ±20%, N = ±30%

CSMS8D28R/CSMS8D43R Series

CSMS8D28R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Rated DC Current (A)Max.
CSMS8D28R-2R5□	2.5	100	18.5	5.4
CSMS8D28R-3R3□	3.3	100	24.6	4.8
CSMS8D28R-4R7□	4.7	100	36.8	4.0
CSMS8D28R-6R8□	6.8	100	48.4	3.2
CSMS8D28R-100□	10	100	62.2	2.7
CSMS8D28R-150□	15	100	93.5	2.2
CSMS8D28R-220□	22	100	156.6	1.8
CSMS8D28R-330□	33	100	205.2	1.4
CSMS8D28R-470□	47	100	266.1	1.25
CSMS8D28R-680□	68	100	368.5	0.96
CSMS8D28R-101□	100	100	610.8	0.78

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

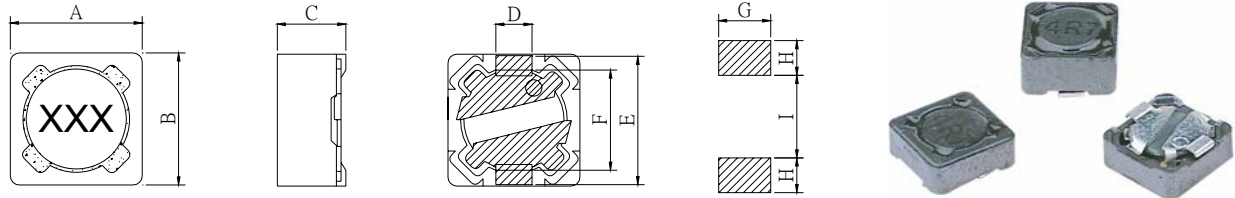
CSMS8D43R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (mΩ)Max.	Rated DC Current (A)Max.
CSMS8D43R-2R0□	2.0	100	14	6.4
CSMS8D43R-3R9□	3.9	100	19	5.0
CSMS8D43R-4R7□	4.7	100	22	4.6
CSMS8D43R-6R8□	6.8	100	32	4.2
CSMS8D43R-100□	10	100	40	3.6
CSMS8D43R-150□	15	100	58	2.6
CSMS8D43R-220□	22	100	96	2.1
CSMS8D43R-330□	33	100	144	1.6
CSMS8D43R-470□	47	100	195	1.4
CSMS8D43R-680□	68	100	240	1.2
CSMS8D43R-101□	100	100	360	0.9

NOTE: □ Tolerance value : M = ±20%, N = ±30%.

CSMRH73/CSMRH74 Series

EXTERNAL DIMENSIONS (Unit : m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSMRH73	7.5Max	7.5Max	3.4Max	1.8	7.2	5.4	2.2	1.5	4.8	50
CSMRH74	7.5Max	7.5Max	4.5Max	1.8	7.2	5.4	2.2	1.5	4.8	51

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current is that which causes a 25% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)
- Operating temperature: -25°C ~ +85°C.

Features

- Ideal for a variety of DC-DC converter Inductors Applications. Available on tape and reel for automatic insertion. Low DC resistance and large permissible DC current. This can be surface mount assembly and reflow soldering is also possible.

Applications

- Excellent for power line DC-DC conversion application used in hard disk, notebook computers and other electronic equipment.

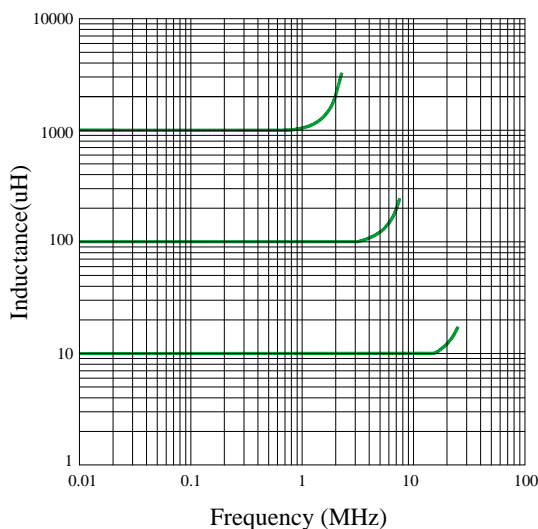
CSMRH73 Series

CSMRH73 Series

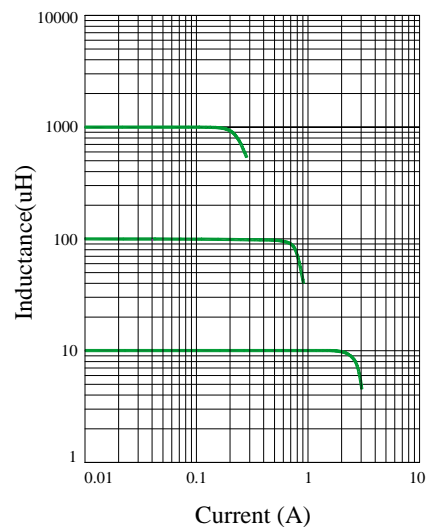
Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max
CSMRH73-100□	10	100	0.072	1.68
CSMRH73-120□	12	100	0.098	1.52
CSMRH73-150□	15	100	0.13	1.33
CSMRH73-180□	18	100	0.14	1.20
CSMRH73-220□	22	100	0.19	1.07
CSMRH73-270□	27	100	0.21	0.96
CSMRH73-330□	33	100	0.24	0.91
CSMRH73-390□	39	100	0.32	0.77
CSMRH73-470□	47	100	0.36	0.76
CSMRH73-560□	56	100	0.47	0.68
CSMRH73-680□	68	100	0.52	0.61
CSMRH73-820□	82	100	0.69	0.57
CSMRH73-101□	100	100	0.79	0.50
CSMRH73-121□	120	100	0.89	0.49
CSMRH73-151□	150	100	1.27	0.43
CSMRH73-181□	180	100	1.45	0.39
CSMRH73-221□	220	100	1.65	0.35
CSMRH73-271□	270	100	2.31	0.32
CSMRH73-331□	330	100	2.62	0.28
CSMRH73-391□	390	100	2.94	0.26
CSMRH73-471□	470	100	4.18	0.24
CSMRH73-561□	560	100	4.67	0.22
CSMRH73-681□	680	100	5.73	0.19
CSMRH73-821□	820	100	6.54	0.18
CSMRH73-102□	1000	100	9.44	0.16

NOTE: □ Tolerance value : K = ±10%, L = ±15%, M = ±20%

Typical L vs Frequency



Typical L vs Current



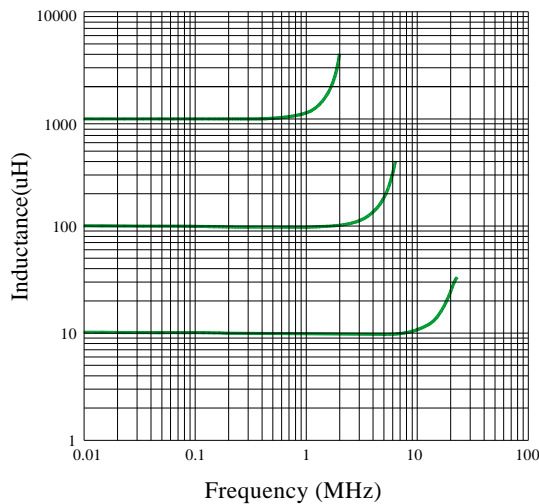
CSMRH74 Series

CSMRH74 Series

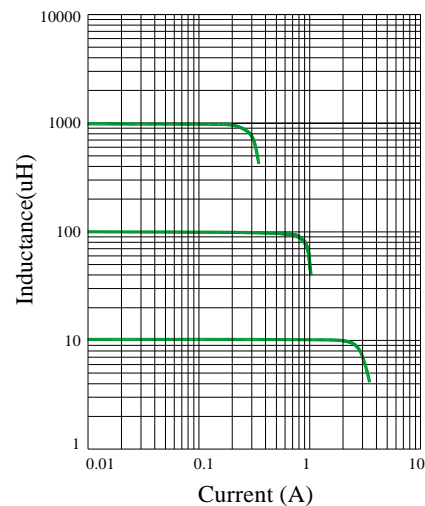
Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max
CSMRH74-100□	10	100	0.049	1.84
CSMRH74-120□	12	100	0.063	1.71
CSMRH74-150□	15	100	0.081	1.47
CSMRH74-180□	18	100	0.091	1.31
CSMRH74-220□	22	100	0.11	1.23
CSMRH74-270□	27	100	0.15	1.12
CSMRH74-330□	33	100	0.17	0.96
CSMRH74-390□	39	100	0.23	0.91
CSMRH74-470□	47	100	0.26	0.88
CSMRH74-560□	56	100	0.35	0.75
CSMRH74-680□	68	100	0.38	0.69
CSMRH74-820□	82	100	0.45	0.61
CSMRH74-101□	100	100	0.61	0.60
CSMRH74-121□	120	100	0.66	0.52
CSMRH74-151□	150	100	0.88	0.46
CSMRH74-181□	180	100	0.98	0.42
CSMRH74-221□	220	100	1.17	0.36
CSMRH74-271□	270	100	1.64	0.34
CSMRH74-331□	330	100	1.86	0.32
CSMRH74-391□	390	100	2.85	0.29
CSMRH74-471□	470	100	3.01	0.26
CSMRH74-561□	560	100	3.62	0.23
CSMRH74-681□	680	100	4.63	0.22
CSMRH74-821□	820	100	5.20	0.20
CSMRH74-102□	1000	100	6.00	0.18

NOTE: □ Tolerance value : K = ±10%, L = ±15%, M = ±20%

Typical L vs Frequency

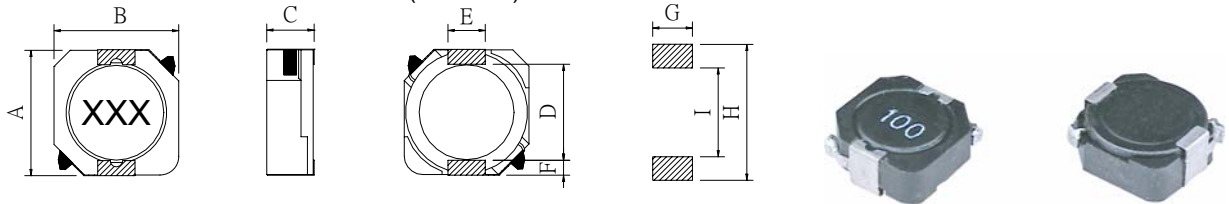


Typical L vs Current

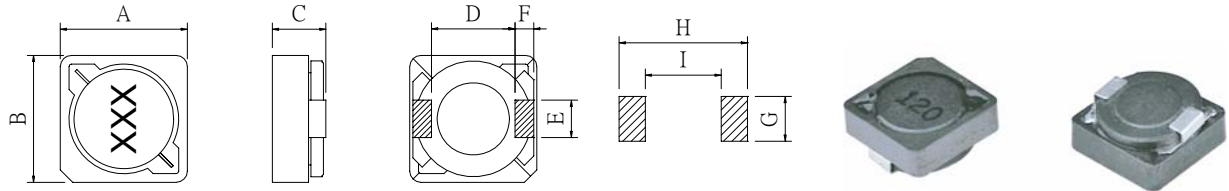


CSM103R-CSM105R/CSM104RD Series

EXTERNAL DIMENSIONS (Unit:m/m)



ICC104R-105R



ICC104R*

Type	A	B	C	D	E	F	G	H	I
CSM103R	10.4Max	10.3Max	3.0Max	7.7	3.0	1.2	3.6	10.7	7.3
CSM104R	10.4Max	10.3Max	4.0Max	7.7	3.0	1.2	3.6	10.7	7.3
CSM104R*	10.3Max	10.3Max	4.5Max	6.5	3.0	1.6	3.6	10.7	6.0
CSM105R	10.3Max	10.3Max	5.0Max	6.5	3.0	1.6	3.6	10.7	6.0

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- 1. Maximum allowable DC current is that which causes a 35% inductance reduction of the initial value, or coil temperature to rise by 30°C, whichever is smaller. (Reference ambient temperature 20°C)
- 2. Maximum allowable DC current is that which causes a 30% inductance reduction of the initial value, or coil temperature to rise by 40°C, whichever is smaller. (Reference ambient temperature 20°C)
- Operating temperature: -25°C ~ +85°C.

Features

- Magnetic shielded surface mount inductor with high current rating.
- High inductance/High power inductor.

Applications

- Ideal use in variety of DC-DC converter inductor applications.

CSM104R/CSM104R* Series

CSM103R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max
CSM103R-100□	10	100	0.058	2.70
CSM103R-120□	12	100	0.072	2.25
CSM103R-150□	15	100	0.086	2.22
CSM103R-180□	18	100	0.116	1.90
CSM103R-220□	22	100	0.145	1.78
CSM103R-270□	27	100	0.175	1.5
CSM103R-330□	33	100	0.213	1.46
CSM103R-390□	39	100	0.269	1.32
CSM103R-470□	47	100	0.299	1.18
CSM103R-560□	56	100	0.336	1.10
CSM103R-680□	68	100	0.451	1.04
CSM103R-820□	82	100	0.534	0.94
CSM103R-101□	100	100	0.700	0.84
CSM103R-121□	120	100	0.765	0.76
CSM103R-151□	150	100	0.876	0.70

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSM104R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max
CSM104R-1R5□	1.5	100	0.012	7.00
CSM104R-2R7□	2.7	100	0.018	6.30
CSM104R-4R4□	4.4	100	0.025	5.70
CSM104R-5R6□	5.6	100	0.029	5.30
CSM104R-6R8□	6.8	100	0.032	5.00
CSM104R-7R5□	7.5	100	0.037	4.80
CSM104R-120□	12	100	0.050	4.20
CSM104R-150□	15	100	0.070	3.60
CSM104R-220□	22	100	0.100	2.90
CSM104R-330□	33	100	0.150	2.30
CSM104R-470□	47	100	0.185	2.10
CSM104R-680□	68	100	0.310	1.50
CSM104R-101□	100	100	0.410	1.35
CSM104R-151□	150	100	0.560	1.15
CSM104R-221□	220	100	0.870	0.92
CSM104R-331□	330	100	1.250	0.70
CSM104R-471□	470	100	1.650	0.50
CSM104R-681□	680	100	3.100	0.30
CSM104R-102□	1000	100	5.500	0.20

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

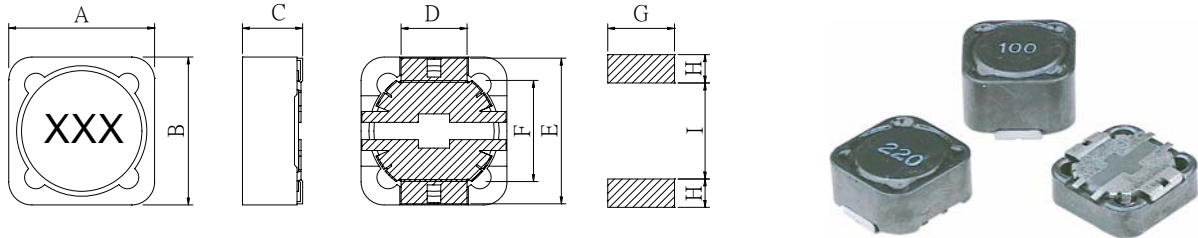
CSM105R Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max.	Rated DC Current (A)Max
CSM105R-100□	10	100	0.026	3.45
CSM105R-120□	12	100	0.032	3.40
CSM105R-150□	15	100	0.040	2.83
CSM105R-220□	22	100	0.059	2.44
CSM105R-330□	33	100	0.081	1.88
CSM105R-470□	47	100	0.122	1.56
CSM105R-560□	56	100	0.145	1.39
CSM105R-680□	68	100	0.193	1.36
CSM105R-101□	100	100	0.247	1.09
CSM105R-151□	150	100	0.355	0.91
CSM105R-221□	220	100	0.484	0.75
CSM105R-331□	330	100	0.780	0.60
CSM105R-471□	470	100	1.220	0.50
CSM105R-681□	680	100	1.519	0.43
CSM105R-102□	1000	100	1.964	0.35

NOTE: □ Tolerance value : K = ±10%, M = ±20%, N = ±30%.

CSMRH124/125/127 Series

EXTERNAL DIMENSIONS (Unit:m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSMRH124	12.3Max	12.3Max	4.5Max	5.0	11.8	7.6	5.4	2.8	7.0	56
CSMRH125	12.3Max	12.3Max	6.0Max	5.0	11.8	7.6	5.4	2.8	7.0	57
CSMRH127	12.3Max	12.3Max	8.0Max	5.0	11.8	7.6	5.4	2.8	7.0	58

Test Equipment and Conditions

- Inductance is measured with HP-4284A LCR meter or equivalent.
- Maximum allowable DC current is that whS causes a 25% inductance reduction of the initial value, or coil temperature to rise by 40°C, whSever is smaller.(Reference ambient temperature 20°C)
- Operating temperature : -25°C~ +85°C.

Features

- MagnetS Shielded surface mount inductor with high current rating.
- Low resistance to keep power loss minimum.

ApplSations

- Excellent for power line DC-DC conversion applSation used in hard disk, notebook computers and other electronS equipment.

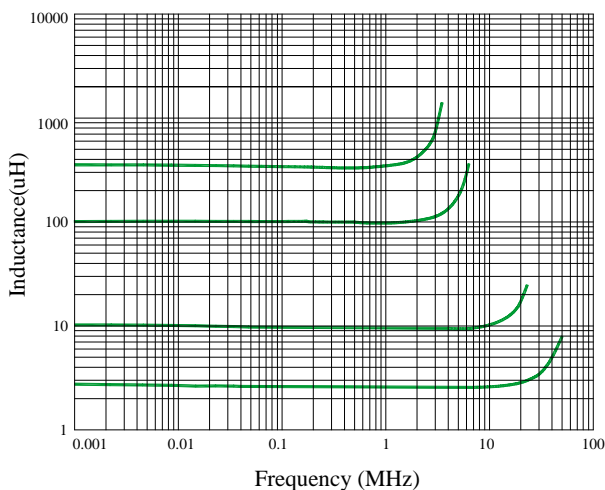
CSMRH124 Series

CSMRH124 Series

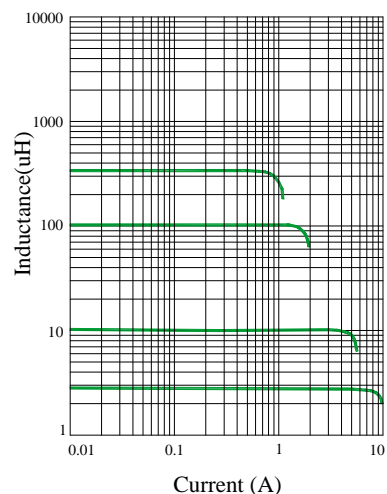
Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSMRH124-2R2□	2.2	100	0.008	7.00
CSMRH124-2R7□	2.7	100	0.012	6.70
CSMRH124-3R5□	3.5	100	0.015	6.60
CSMRH124-3R9□	3.9	100	0.015	6.50
CSMRH124-4R7□	4.7	100	0.018	5.60
CSMRH124-5R6□	5.6	100	0.018	5.20
CSMRH124-6R8□	6.8	100	0.022	4.90
CSMRH124-7R6□	7.6	100	0.026	4.70
CSMRH124-8R2□	8.2	100	0.026	4.60
CSMRH124-100□	10	100	0.028	4.50
CSMRH124-120□	12	100	0.038	4.00
CSMRH124-150□	15	100	0.050	3.20
CSMRH124-180□	18	100	0.057	3.10
CSMRH124-220□	22	100	0.066	2.90
CSMRH124-270□	27	100	0.080	2.80
CSMRH124-330□	33	100	0.097	2.70
CSMRH124-390□	39	100	0.132	2.10
CSMRH124-470□	47	100	0.150	1.90
CSMRH124-560□	56	100	0.180	1.80
CSMRH124-680□	68	100	0.220	1.50
CSMRH124-820□	82	100	0.260	1.30
CSMRH124-101□	100	100	0.308	1.20
CSMRH124-121□	120	100	0.380	1.10
CSMRH124-151□	150	100	0.530	0.95
CSMRH124-181□	180	100	0.620	0.85
CSMRH124-221□	220	100	0.700	0.80
CSMRH124-271□	270	100	0.875	0.60
CSMRH124-331□	330	100	0.990	0.50

NOTE: □ Tolerance value : K = ±10%, M = ±20%.

Typical L vs Frequency



Typical L vs Current



CSMRH125 Series

CSMRH125 Series

Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSMRH125-1R8□	1.8	10	0.005	8.00
CSMRH125-2R7□	2.7	10	0.007	7.00
CSMRH125-3R9□	3.9	10	0.009	6.00
CSMRH125-4R7□	4.7	10	0.012	5.30
CSMRH125-6R1□	6.1	10	0.013	4.80
CSMRH125-6R8□	6.8	10	0.014	4.70
CSMRH125-7R6□	7.6	10	0.017	4.50
CSMRH125-8R2□	8.2	10	0.020	4.30
CSMRH125-100□	10	10	0.025	4.00
CSMRH125-120□	12	10	0.027	3.50
CSMRH125-150□	15	10	0.030	3.30
CSMRH125-180□	18	10	0.034	3.00
CSMRH125-220□	22	10	0.036	2.80
CSMRH125-270□	27	10	0.051	2.30
CSMRH125-330□	33	10	0.060	2.10
CSMRH125-390□	39	10	0.068	2.00
CSMRH125-470□	47	10	0.075	1.80
CSMRH125-560□	56	10	0.11	1.70
CSMRH125-680□	68	10	0.12	1.50
CSMRH125-820□	82	10	0.14	1.40
CSMRH125-101□	100	10	0.18	1.30
CSMRH125-121□	120	10	0.20	1.10
CSMRH125-151□	150	10	0.23	1.00
CSMRH125-181□	180	10	0.29	0.90
CSMRH125-221□	220	10	0.45	0.80
CSMRH125-271□	270	10	0.50	0.75
CSMRH125-331□	330	10	0.59	0.68
CSMRH125-391□	390	10	0.69	0.65
CSMRH125-471□	470	10	0.77	0.58
CSMRH125-561□	560	10	0.86	0.54
CSMRH125-681□	680	10	1.20	0.48
CSMRH125-821□	820	10	1.34	0.43
CSMRH125-102□	1000	10	1.53	0.40

NOTE: □ Tolerance value : K = ±10%, M = ±20%.

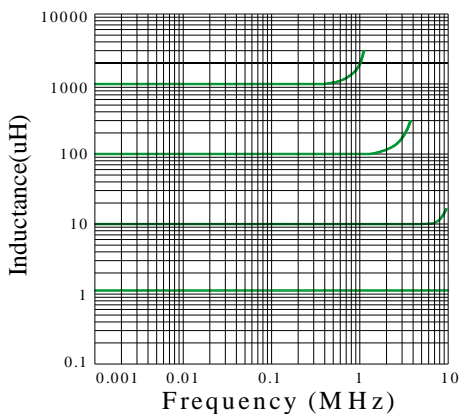
CSMRH127 Series

CSMRH127 Series

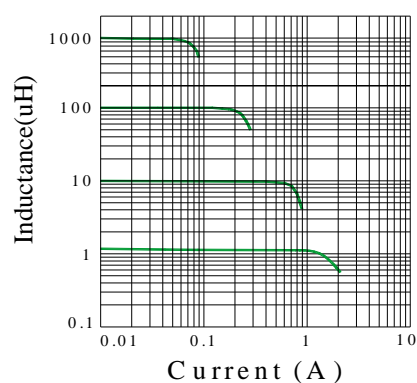
Part Number	Inductance (μH)	Test Frequency (KHz)	DC Resistance (Ω)Max	Rated DC Current (A)Max
CSMRH127-1R2□	1.2	10	7.0m	9.8
CSMRH127-1R8□	1.8	10	11.5m	8.0
CSMRH127-3R3□	3.3	10	13.5m	7.5
CSMRH127-4R7□	4.7	10	15.8m	6.8
CSMRH127-6R1□	6.1	10	17.6m	6.6
CSMRH127-7R6□	7.6	10	20.0m	5.9
CSMRH127-100□	10	10	21.6m	5.4
CSMRH127-120□	12	10	24.3m	4.9
CSMRH127-150□	15	10	27.0m	4.5
CSMRH127-180□	18	10	39.2m	3.9
CSMRH127-220□	22	10	43.2m	3.6
CSMRH127-270□	27	10	45.9m	3.4
CSMRH127-330□	33	10	64.8m	3.0
CSMRH127-390□	39	10	72.9m	2.75
CSMRH127-470□	47	10	77.0m	2.50
CSMRH127-560□	56	10	97.0m	2.35
CSMRH127-680□	68	10	0.10	2.10
CSMRH127-820□	82	10	0.12	1.95
CSMRH127-101□	100	10	0.15	1.70
CSMRH127-121□	120	10	0.17	1.60
CSMRH127-151□	150	10	0.19	1.42
CSMRH127-181□	180	10	0.25	1.30
CSMRH127-221□	220	10	0.35	1.16
CSMRH127-271□	270	10	0.39	1.06
CSMRH127-331□	330	10	0.48	0.95
CSMRH127-391□	390	10	0.54	0.88
CSMRH127-471□	470	10	0.79	0.79
CSMRH127-561□	560	10	0.87	0.73
CSMRH127-681□	680	10	1.00	0.67
CSMRH127-821□	820	10	1.20	0.60
CSMRH127-102□	1000	10	1.30	0.55

NOTE: □ Tolerance value : K = ±10%, M = ±20%.

Typical L vs Frequency

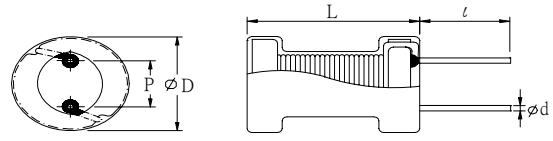


Typical L vs Current

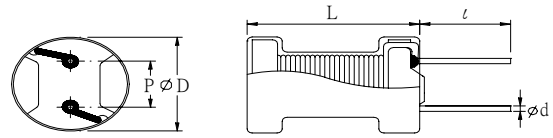


CPK Series

EXTERNAL DIMENSIONS (Unit: m/m)



(Fig. 1)



(Fig. 2)

Part Number	L (MAX)	D (MAX)	l (±2mm)	d ± 0.05	P ± 0.5
CPK0406	8.0	5.5	15	0.6	2.0
CPK0507	9.0	6.0	15	0.6	2.5
CPK0608	10.0	7.5	15	0.6	3.0
CPK0810	12.0	10.0	15	0.6	5.0
CPK0912	15.0	11.0	15	0.6	5.0
CPK1016	18.0	11.5	15	0.6	6.0

Test Equipment and Conditions

- Inductance & Q are measured with HP-4284A or equiv.
- SRF is measured with ML-2770 or equiv.
- DCR is measured with CH-502A or equiv.
- Rated DC current is measured with HP-42841A or equiv.

Features

- Ideal as a choke coil for noise filtering and DC to DC converter application.
- Covered with PVC or UL shrink tubing
- Excellent characteristics for high Q

Applications

- TV and Audio equipment
- Buzzers and Alarm systems
- Switching power supplies
- Systems requiring Board and high Q.
- Other noise filters.

CPK0406 Series

Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max	Rated DC Current (mA)Max
CPK0406-1R0□	1.0	7.96MHz	0.10	1400
CPK0406-1R5□	1.5	7.96MHz	0.15	1300
CPK0406-1R8□	1.8	7.96MHz	0.17	1300
CPK0406-2R2□	2.2	7.96MHz	0.20	1200
CPK0406-3R3□	2.7	7.96MHz	0.22	1200
CPK0406-3R9□	3.3	7.96MHz	0.24	1100
CPK0406-4R7□	4.7	7.96MHz	0.26	800
CPK0406-5R6□	5.6	7.96MHz	0.28	800
CPK0406-6R8□	6.8	7.96MHz	0.30	800
CPK0406-8R2□	8.2	7.96MHz	0.35	800
CPK0406-100□	10	2.52MHz	0.46	700
CPK0406-120□	12	2.52MHz	0.48	600
CPK0406-150□	15	2.52MHz	0.55	600
CPK0406-180□	18	2.52MHz	0.65	500
CPK0406-220□	22	2.52MHz	0.72	500
CPK0406-270□	27	2.52MHz	0.78	400
CPK0406-330□	33	2.52MHz	0.87	400
CPK0406-390□	39	2.52MHz	0.90	400
CPK0406-470□	47	2.52MHz	0.98	400
CPK0406-560□	56	2.52MHz	1.50	320
CPK0406-680□	68	2.52MHz	1.90	300
CPK0406-820□	88	2.52MHz	2.50	300
CPK0406-101□	100	0.796MHz	3.00	200
CPK0406-121□	120	0.796MHz	3.80	200
CPK0406-151□	150	0.796MHz	4.50	200
CPK0406-181□	180	0.796MHz	5.00	200
CPK0406-221□	220	0.796MHz	5.80	200
CPK0406-271□	270	0.796MHz	6.50	150
CPK0406-331□	330	0.796MHz	7.00	150
CPK0406-391□	390	0.796MHz	7.70	150
CPK0406-471□	470	0.796MHz	8.00	120
CPK0406-561□	560	0.796MHz	8.50	120
CPK0406-681□	680	0.796MHz	9.50	120
CPK0406-821□	820	0.796MHz	15.0	100
CPK0406-102□	1000	0.252MHz	17.0	100
CPK0406-122□	1200	0.252MHz	20.0	80
CPK0406-152□	1500	0.252MHz	22.0	80
CPK0406-182□	1800	0.252MHz	25.0	70
CPK0406-222□	2200	0.252MHz	26.0	60
CPK0406-272□	2700	0.252MHz	40.0	40
CPK0406-332□	3300	0.252MHz	50.0	30
CPK0406-392□	3900	0.252MHz	54.0	30
CPK0406-472□	4700	0.252MHz	60.0	30
CPK0406-562□	5600	0.252MHz	65.0	30

NOTE: Tolerance value: M= ± 20%, N= ± 30%.

Http://www.coil-rida.com.cn E_mail:coil-rida@coil-rida.com.cn TEL: +86-755-29485625 Fax: +86-755-29485623

CPK0507 Series

Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max	Rated DC Current (mA)Max
CPK0507-1R0□	1.0	7.96MHz	0.014	3500
CPK0507-1R5□	1.5	7.96MHz	0.02	3000
CPK0507-2R2□	2.2	7.96MHz	0.02	2500
CPK0507-3R3□	2.7	7.96MHz	0.03	2000
CPK0507-4R7□	4.7	7.96MHz	0.04	1700
CPK0507-6R8□	6.8	7.96MHz	0.06	1300
CPK0507-100□	10	2.52MHz	0.08	1000
CPK0507-120□	12	2.52MHz	0.10	950
CPK0507-150□	15	2.52MHz	0.11	900
CPK0507-180□	18	2.52MHz	0.11	800
CPK0507-220□	22	2.52MHz	0.12	700
CPK0507-270□	27	2.52MHz	0.14	600
CPK0507-330□	33	2.52MHz	0.16	550
CPK0507-390□	39	2.52MHz	0.18	500
CPK0507-470□	47	2.52MHz	0.20	500
CPK0507-560□	56	2.52MHz	0.22	450
CPK0507-680□	68	2.52MHz	0.30	450
CPK0507-820□	88	2.52MHz	0.34	400
CPK0507-101□	100	0.796MHz	0.36	400
CPK0507-121□	120	0.796MHz	0.44	350
CPK0507-151□	150	0.796MHz	0.52	300
CPK0507-181□	180	0.796MHz	0.65	300
CPK0507-221□	220	0.796MHz	0.75	250
CPK0507-271□	270	0.796MHz	1.0	240
CPK0507-331□	330	0.796MHz	1.3	200
CPK0507-391□	390	0.796MHz	1.4	180
CPK0507-471□	470	0.796MHz	1.6	160
CPK0507-561□	560	0.796MHz	2.0	160
CPK0507-681□	680	0.796MHz	2.3	140
CPK0507-821□	820	0.796MHz	2.7	130
CPK0507-102□	1000	0.252MHz	3.1	120
CPK0507-122□	1200	0.252MHz	4.6	110
CPK0507-152□	1500	0.252MHz	5.3	100
CPK0507-182□	1800	0.252MHz	6.2	90
CPK0507-222□	2200	0.252MHz	6.8	80
CPK0507-272□	2700	0.252MHz	10.0	60
CPK0507-332□	3300	0.252MHz	12.0	60
CPK0507-392□	3900	0.252MHz	13.0	55
CPK0507-472□	4700	0.252MHz	15.0	55
CPK0507-562□	5600	0.252MHz	22.0	50
CPK0507-682□	6800	0.252MHz	25.0	45
CPK0507-822□	8200	0.252MHz	28.0	45
CPK0507-103□	10000	0.0796MHz	35.0	35

NOTE: Tolerance value: M= ± 20%, N= ± 30%.

CPK0608 Series

Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max	Rated DC Current (mA)Max
CPK0608-100K	10	2.52MHz	0.09	1300
CPK0608-120K	12	2.52MHz	0.10	1100
CPK0608-150K	15	2.52MHz	0.11	1050
CPK0608-180K	18	2.52MHz	0.12	1000
CPK0608-220K	22	2.52MHz	0.12	960
CPK0608-270K	27	2.52MHz	0.17	920
CPK0608-330K	33	2.52MHz	0.19	880
CPK0608-390K	39	2.52MHz	0.22	860
CPK0608-470K	47	2.52MHz	0.23	830
CPK0608-560K	56	2.52MHz	0.29	810
CPK0608-680K	68	2.52MHz	0.37	750
CPK0608-820K	82	2.52MHz	0.39	740
CPK0608-101K	100	0.796MHz	0.44	710
CPK0608-121K	120	0.796MHz	0.64	680
CPK0608-151K	150	0.796MHz	0.73	600
CPK0608-181K	180	0.796MHz	0.82	540
CPK0608-221K	220	0.796MHz	0.92	450
CPK0608-271K	270	0.796MHz	1.30	420
CPK0608-331K	330	0.796MHz	1.50	400
CPK0608-391K	390	0.796MHz	1.80	370
CPK0608-471K	470	0.796MHz	2.30	340
CPK0608-561K	560	0.796MHz	3.00	280
CPK0608-681K	680	0.796MHz	3.25	250
CPK0608-821K	820	0.796MHz	4.16	230
CPK0608-102K	1000	252KHz	4.55	210
CPK0608-122K	1200	252KHz	5.20	200
CPK0608-152K	1500	252KHz	7.54	180
CPK0608-182K	1800	9252KHz	7.54	160
CPK0608-222K	2200	252KHz	8.32	150
CPK0608-272K	2700	252KHz	9.62	130
CPK0608-332K	3300	252KHz	10.92	130
CPK0608-392K	3900	252KHz	16.12	100
CPK0608-472K	4700	252KHz	17.81	85
CPK0608-562K	5600	252KHz	20.00	70
CPK0608-682K	6800	252KHz	27.30	65
CPK0608-822K	8200	252KHz	31.20	60
CPK0608-103K	10000	79.6KHz	39.00	58
CPK0608-123K	12000	79.6KHz	42.90	56
CPK0608-153K	15000	79.6KHz	65.00	53
CPK0608-183K	18000	79.6KHz	72.80	50
CPK0608-223K	22000	79.6KHz	82.55	46
CPK0608-273K	27000	79.6KHz	95.42	42
CPK0608-333K	33000	79.6KHz	135.20	38

NOTE: Tolerance value: M= ± 20%, N= ± 30%.

CPK0810 Series

Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max	Rated DC Current (mA)Max
CPK0810-220K	22	2.52 MHz	0.047	2400
CPK0810-270K	27	2.52 MHz	0.052	2100
CPK0810-330K	33	2.52 MHz	0.075	1900
CPK0810-390K	39	2.52 MHz	0.082	1700
CPK0810-470K	47	2.52 MHz	0.100	1500
CPK0810-560K	56	2.52 MHz	0.150	1300
CPK0810-680K	68	2.52 MHz	0.180	1200
CPK0810-820K	82	2.52 MHz	0.200	1100
CPK0810-101K	100	0.796 MHz	0.200	900
CPK0810-121K	120	0.796 MHz	0.220	800
CPK0810-151K	150	0.796 MHz	0.240	720
CPK0810-181K	180	0.796 MHz	0.280	650
CPK0810-221K	220	0.796 MHz	0.350	600
CPK0810-271K	270	0.796 MHz	0.400	550
CPK0810-331K	330	0.796 MHz	0.470	500
CPK0810-391K	390	0.796 MHz	0.680	460
CPK0810-471K	470	0.796 MHz	0.800	420
CPK0810-561K	560	0.796 MHz	1.00	380
CPK0810-681K	680	0.796 MHz	1.20	350
CPK0810-821K	820	0.796 MHz	1.50	310
CPK0810-102K	1000	0.252 MHz	1.80	280
CPK0810-122K	1200	0.252 MHz	2.00	250
CPK0810-152K	1500	0.252 MHz	2.40	230
CPK0810-182K	1800	0.252 MHz	2.80	210
CPK0810-222K	2200	0.252 MHz	3.30	190
CPK0810-272K	2700	0.252 MHz	5.00	170
CPK0810-332K	3300	0.252 MHz	5.60	150
CPK0810-392K	3900	0.252 MHz	6.20	140
CPK0810-472K	4700	0.252 MHz	7.00	130
CPK0810-562K	5600	0.252 MHz	9.10	120
CPK0810-682K	6800	0.252 MHz	10.0	110
CPK0810-822K	8200%	0.252 MHz	15.0	100
CPK0810-103K	10000%	0.0796 MHz	20.0	90

NOTE: Tolerance value: M= ± 20%, N= ± 30%

CPK0912 Series

Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max	Rated DC Current (mA)Max
CPK0912-100K	10	1K	0.04	3.10
CPK0912-120K	12	1K	0.04	2.90
CPK0912-150K	15	1K	0.05	2.60
CPK0912-180K	18	1K	0.06	2.40
CPK0912-220K	22	1K	0.07	2.20
CPK0912-270K	27	1K	0.10	2.00
CPK0912-330K	33	1K	0.12	1.80
CPK0912-390K	39	1K	0.12	1.60
CPK0912-470K	47	1K	0.13	1.50
CPK0912-560K	56	1K	0.14	1.40
CPK0912-680K	68	1K	0.15	1.30
CPK0912-820K	82	1K	0.16	1.20
CPK0912-101K	100	1K	0.25	1.00
CPK0912-121K	120	1K	0.28	0.90
CPK0912-151K	150	1K	0.32	0.80
CPK0912-181K	180	1K	0.47	0.75
CPK0912-221K	220	1K	0.53	0.70
CPK0912-271K	270	1K	0.60	0.65
CPK0912-331K	330	1K	0.85	0.58
CPK0912-391K	390	1K	0.95	0.55
CPK0912-471K	470	1K	1.10	0.50
CPK0912-561K	560	1K	1.20	0.43
CPK0912-681K	680	1K	1.30	0.40
CPK0912-821K	820	1K	1.40	0.37
CPK0912-102K	1000	1K	2.00	0.29
CPK0912-122K	1200	1K	2.30	0.28
CPK0912-152K	1500	1K	2.90	0.27
CPK0912-182K	1800	1K	3.30	0.25
CPK0912-222K	2200	1K	4.50	0.23
CPK0912-272K	2700	1K	5.50	0.20
CPK0912-332K	3300	1K	5.70	0.17
CPK0912-392K	3900	1K	6.50	0.16
CPK0912-472K	4700	1K	7.20	0.15
CPK0912-562K	5600	1K	9.50	0.14
CPK0912-682K	6800	1K	11.0	0.12
CPK0912-822K	8200	1K	13.0	0.10
CPK0912-103K	10000	1K	16.0	0.08
CPK0912-123K	12000	1K	18.0	0.07
CPK0912-153K	15000	1K	21.0	0.06
CPK0912-183K	18000	1K	23.0	0.05
CPK0912-223K	22000	1K	33.0	0.04
CPK0912-273K	27000	1K	37.0	0.038
CPK0912-333K	33000	1K	42.0	0.035

NOTE: Tolerance value: M= ± 20%, N= ± 30%

CPK1016Series

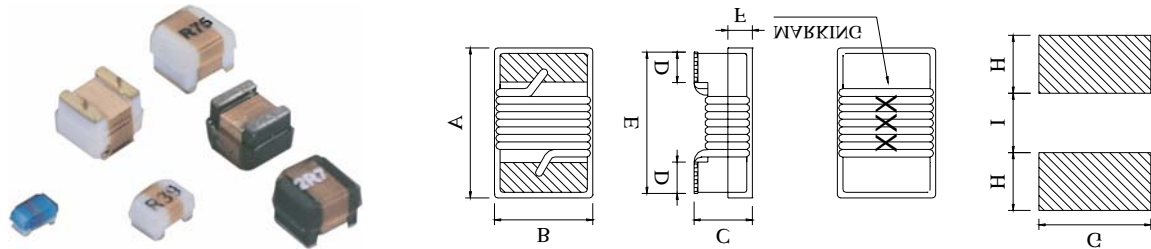
Part Number	Inductance (μH)	Test Frequency (MHz)	DC Resistance (Ω)Max	Rated DC Current (mA)Max
CPK1016-1R0M	10	1K	0.010	9000
CPK1016-1R5M	12	1K	0.015	9000
CPK1016-1R8M	1.8	1K	0.015	9000
CPK1016-2R7M	2.7	1K	0.015	9000
CPK1016-3R3M	3.3	1K	0.015	8500
CPK1016-3R9M	3.9	1K	0.015	8000
CPK1016-4R7M	4.7	1K	0.020	7500
CPK1016-5R6K	5.6	1K	0.025	7500
CPK1016-6R8K	6.8	1K	0.025	7500
CPK1016-8R2K	8.2	1K	0.025	7200
CPK1016-100K	10	1K	0.030	7200
CPK1016-120K	12	1K	0.030	7000
CPK1016-150K	15	1K	0.035	6500
CPK1016-180K	18	1K	0.035	6300
CPK1016-220K	22	1K	0.045	5500
CPK1016-270K	27	1K	0.050	4500
CPK1016-330K	33	1K	0.070	4000
CPK1016-390K	39	1K	0.070	3800
CPK1016-470K	47	1K	0.070	3600
CPK1016-560K	56	1K	0.080	3200
CPK1016-680K	68	1K	0.090	3000
CPK1016-820K	82	1K	0.095	2600
CPK1016-101K	100	1K	0.120	2500
CPK1016-121K	120	1K	0.140	2300
CPK1016-151K	150	1K	0.117	2100
CPK1016-181K	180	1K	0.190	2000
CPK1016-221K	220	1K	0.250	1800
CPK1016-271K	270	1K	0.340	1500
CPK1016-331K	330	1K	0.450	1500
CPK1016-391K	390	1K	0.510	1300
CPK1016-471K	470	1K	0.560	1200
CPK1016-561K	560	1K	0.640	1000
CPK1016-681K	680	1K	0.710	1000
CPK1016-821K	820	1K	1.010	900
CPK1016-102K	1000	1K	1.200	800

NOTE: Tolerance value: M= ± 20%, N= ± 30%

Wound Inductors – CCWI/CFWI Series

EXTERNAL DIMENSIONS

(Unit: m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CCWI0603U	1.80Max	1.12Max	1.02Max	0.33	1.52	0.51	1.02	0.64	0.64	67
CCWI0805	2.29Max	1.73Max	1.33Max	0.5	2.03	0.51	1.78	1.02	0.76	68
CCWI1008	2.92Max	2.79Max	2.20Max	0.5	2.43	0.51	2.54	1.02	1.27	69
CFWI0805	2.29Max	1.73Max	1.33Max	0.5	2.03	0.51	1.78	1.02	0.76	70
CFWI1008	2.92Max	2.79Max	2.20Max	0.5	2.43	0.51	2.54	1.02	1.27	70

Test Equipment and Conditions

- Inductance measured using HP-4286A LCR meter with HP-16193A test fixture.
- Q measured with HP-4291B impedance analyzer meter.
- For 20°C rise.
- According to EIA-481 Standard.

Introduction

- Wound Chip Inductors offers the best overall combination of low cost, close tolerance, better Q factor and high self-resonant frequency than Multilayer chip inductor. which are widely used in communication application region

Feature

- High frequency applications
- Close tolerance application. 2% tolerance is available for particular inductance values
- Small footprint as well as low profile
- High quality factor
- Available for custom values
- Material available for ceramic or ferrite

Application

For high-frequency application such as:

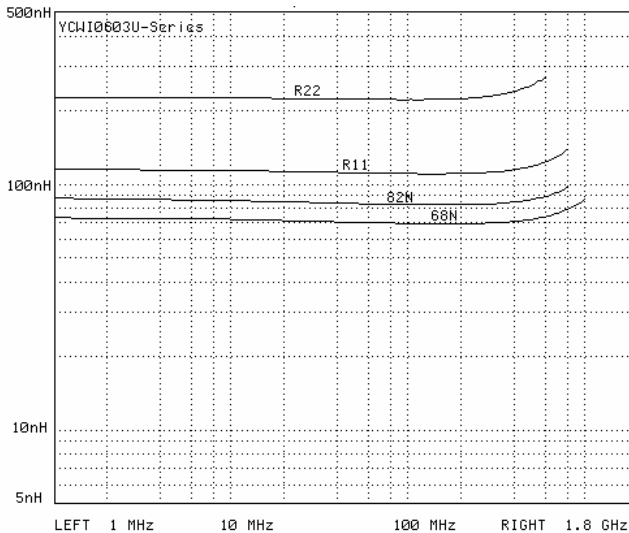
- Mobile phones
- Portable phones
- Cordless phones
- Pagers
- PHS

CCWI0603U Series

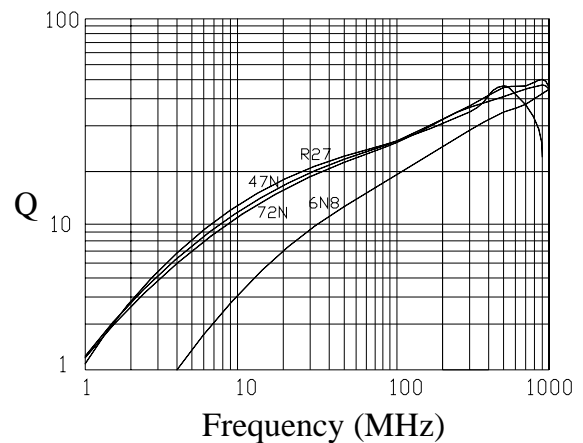
Part Number	Inductance (nH)	Tolerance (%)	Q Min	S.R.F (MHz) Min	DCR (Ω) Max	Rated DC Current (mA)Max
CCWI0603U-1N8	1.8 @ 250MHz	K,M	16 @ 250MHz	6000	0.10	700
CCWI0603U-2N2	2.2 @ 250MHz	K,M	10 @ 250MHz	6000	0.11	700
CCWI0603U-3N3	3.3 @ 250MHz	K,M	20 @ 250MHz	6000	0.10	700
CCWI0603U-3N9	3.9 @ 250MHz	J,K,M	22 @ 250MHz	6000	0.10	700
CCWI0603U-4N7	4.7 @ 250MHz	J,K,M	15 @ 250MHz	5800	0.25	700
CCWI0603U-6N8	6.8 @ 250MHz	J,K,M	27 @ 250MHz	5800	0.11	700
CCWI0603U-8N2	8.2 @ 250MHz	J,K,M	18 @ 250MHz	5200	0.32	700
CCWI0603U-10N	10 @ 250MHz	J,K,M	31 @ 250MHz	4800	0.13	700
CCWI0603U-12N	12 @ 250MHz	J,K,M	35 @ 250MHz	4000	0.13	700
CCWI0603U-15N	15 @ 250MHz	J,K,M	35 @ 250MHz	4000	0.19	700
CCWI0603U-18N	18 @ 250MHz	J,K,M	35 @ 250MHz	3100	0.20	700
CCWI0603U-22N	22 @ 250MHz	J,K,M	38 @ 250MHz	3000	0.23	700
CCWI0603U-27N	27 @ 250MHz	J,K,M	40 @ 250MHz	2800	0.20	600
CCWI0603U-33N	33 @ 250MHz	J,K,M	40 @ 250MHz	2300	0.22	600
CCWI0603U-39N	39 @ 250MHz	J,K,M	40 @ 250MHz	2200	0.25	600
CCWI0603U-47N	47 @ 200MHz	J,K,M	38 @ 250MHz	2000	0.35	600
CCWI0603U-56N	56 @ 200MHz	J,K,M	38 @ 250MHz	1900	0.38	600
CCWI0603U-68N	68 @ 200MHz	J,K,M	37 @ 250MHz	1700	0.46	600
CCWI0603U-72N	72 @ 150MHz	J,K,M	34 @ 250MHz	1700	0.46	400
CCWI0603U-82N	82 @ 150MHz	J,K,M	34 @ 250MHz	1700	0.46	400
CCWI0603U-R10	100 @ 150MHz	J,K,M	34 @ 250MHz	1400	0.52	400
CCWI0603U-R11	110 @ 150MHz	J,K,M	32 @ 250MHz	1350	0.79	300
CCWI0603U-R12	120 @ 150MHz	J,K,M	32 @ 250MHz	1300	0.82	300
CCWI0603U-R15	150 @ 150MHz	J,K,M	28 @ 150MHz	990	1.00	280
CCWI0603U-R18	180 @ 100MHz	J,K,M	25 @ 100MHz	990	1.20	240
CCWI0603U-R22	220 @ 100MHz	J,K,M	25 @ 100MHz	990	2.00	200
CCWI0603U-R27	270 @ 100MHz	J,K,M	24 @ 100MHz	990	2.30	170

NOTE: □ Tolerance value: J = ±5%, K = ±10%, M = ±20%.

Typical L Vs Frequency



Typical Q Vs Frequency



Wound Inductors(High Frequency) – CCWI0805 Series

CCWI0805 Series

Part Number	Inductance (nH)	Tolerance (%)	Q Min	S.R.F (MHz) Min	DCR (Ω) Max	Rated DC Current (mA)Max
CCWI0805-2N2□	2.2 @ 250MHz	J,K,M	40@1000MHz	6000	0.10	600
CCWI0805-2N7□	2.7 @ 250MHz	J,K,M	40@1000MHz	6000	0.10	600
CCWI0805-3N3□	3.3 @ 250MHz	J,K,M	25@1000MHz	6000	0.15	600
CCWI0805-4N7□	4.7 @ 250MHz	J,K,M	50@1000MHz	5000	0.09	600
CCWI0805-5N6□	5.6 @ 250MHz	J,K,M	50@1000MHz	5000	0.10	600
CCWI0805-6N8□	6.8 @ 250MHz	J,K,M	50@1000MHz	5000	0.11	600
CCWI0805-8N2□	8.2 @ 250MHz	J,K,M	45@1000MHz	4700	0.19	600
CCWI0805-10N□	10 @ 250MHz	J,K,M	50@500MHz	4200	0.14	600
CCWI0805-12N□	12 @ 250MHz	G,J,K,M	50@500MHz	4000	0.15	600
CCWI0805-15N□	15 @ 250MHz	G,J,K,M	50@500MHz	2900	0.17	600
CCWI0805-18N□	18 @ 250MHz	G,J,K,M	50@500MHz	3300	0.20	600
CCWI0805-22N□	22 @ 250MHz	G,J,K,M	55@500MHz	2600	0.22	500
CCWI0805-27N□	27 @ 250MHz	G,J,K,M	55@500MHz	2500	0.25	500
CCWI0805-33N□	33 @ 250MHz	G,J,K,M	60@500MHz	2050	0.27	500
CCWI0805-39N□	39 @ 250MHz	G,J,K,M	60@500MHz	2000	0.29	500
CCWI0805-47N□	47 @ 200MHz	G,J,K,M	60@500MHz	1650	0.31	500
CCWI0805-56N□	56 @ 200MHz	G,J,K,M	60@500MHz	1550	0.34	500
CCWI0805-68N□	68 @ 200MHz	G,J,K,M	60@500MHz	1450	0.38	500
CCWI0805-82N□	82 @ 150MHz	G,J,K,M	60@500MHz	1300	0.42	400
CCWI0805-R10□	100 @ 150MHz	G,J,K,M	60@500MHz	1200	0.46	400
CCWI0805-R12□	120 @ 150MHz	G,J,K,M	50@250MHz	1100	0.51	400
CCWI0805-R15□	150 @ 100MHz	G,J,K,M	50@250MHz	920	0.56	400
CCWI0805-R18□	180 @ 100MHz	G,J,K,M	50@250MHz	870	0.64	400
CCWI0805-R22□	220 @ 100MHz	G,J,K,M	45@250MHz	850	0.70	400
CCWI0805-R27□	270 @ 100MHz	G,J,K,M	40@250MHz	650	1.00	350
CCWI0805-R33□	330 @ 100MHz	G,J,K,M	40@250MHz	600	1.50	310
CCWI0805-R39□	390 @ 100MHz	G,J,K,M	35@250MHz	560	1.70	290
CCWI0805-R47□	470 @ 50MHz	G,J,K,M	33@100MHz	375	1.76	250
CCWI0805-R56□	560 @ 25MHz	G,J,K,M	23@50MHz	340	1.90	230
CCWI0805-R68□	680 @ 25MHz	G,J,K,M	23@50MHz	188	2.20	190
CCWI0805-R75□	750 @ 25MHz	G,J,K,M	21@50MHz	190	2.30	185
CCWI0805-R82□	820 @ 25MHz	G,J,K,M	23@50MHz	215	2.35	180
CCWI0805-R91□	910 @ 25MHz	G,J,K,M	22@50MHz	180	3.00	160
CCWI0805-1R0□	1000 @ 50MHz	G,J,K,M	20@50MHz	200	5.00	130
CCWI0805-2R2□	2200 @ 50MHz	G,J,K,M	20@50MHz	180	7.00	100

NOTE: □Tolerance value: G= ±2%, J= ±5%, K= ±10%,M= ±20%

CCWI1008 Series

Part Number	Inductance (nH)	Tolerance (%)	Q Min	S.R.F (MHz) Min	DCR (Ω) Max	Rated DC Current (mA)Max
CCWI1008-10N□	10@50MHz	M,K,J	50@500MHz	4100	0.08	1000
CCWI1008-12N□	12@50MHz	M,K,J	50@500MHz	3300	0.09	1000
CCWI1008-15N□	15@50MHz	M,K,J	40@500MHz	2500	0.10	500
CCWI1008-18N□	18@50MHz	M,K,J	50@350MHz	2500	0.11	1000
CCWI1008-22N□	22@50MHz	M,K,J	55@350MHz	2400	0.12	1000
CCWI1008-27N□	27@50MHz	M,K,J	55@350MHz	1600	0.13	1000
CCWI1008-33N□	33@50MHz	M,K,J,G	60@350MHz	1600	0.14	1000
CCWI1008-39N□	39@50MHz	M,K,J,G	60@350MHz	1500	0.15	1000
CCWI1008-47N□	47@50MHz	M,K,J,G	65@350MHz	1500	0.16	1000
CCWI1008-56N□	56@50MHz	K,J,G	65@350MHz	1300	0.18	1000
CCWI1008-68N□	68@50MHz	K,J,G	65@350MHz	1300	0.20	1000
CCWI1008-82N□	82@50MHz	K,J,G	60@350MHz	1000	0.22	1000
CCWI1008-R10□	100@25MHz	K,J,G	60@350MHz	1000	0.56	650
CCWI1008-R12□	120@25MHz	K,J,G	60@350MHz	950	0.63	650
CCWI1008-R15□	150@25MHz	K,J,G	45@100MHz	850	0.70	580
CCWI1008-R18□	180@25MHz	K,J,G	45@100MHz	750	0.77	620
CCWI1008-R22□	220@25MHz	K,J,G	45@100MHz	700	0.84	500
CCWI1008-R27□	270@25MHz	K,J,G	45@100MHz	600	0.91	500
CCWI1008-R33□	330@25MHz	K,J,G	45@100MHz	570	1.05	450
CCWI1008-R39□	390@25MHz	K,J,G	45@100MHz	500	1.12	470
CCWI1008-R47□	470@25MHz	K,J,G	45@100MHz	450	1.19	470
CCWI1008-R56□	560@25MHz	K,J,G	45@100MHz	415	1.33	400
CCWI1008-R62□	620@25MHz	K,J,G	45@100MHz	375	1.40	400
CCWI1008-R68□	680@25MHz	K,J,G	45@100MHz	375	1.47	400
CCWI1008-R75□	750@25MHz	K,J,G	45@100MHz	360	1.54	360
CCWI1008-R82□	820@25MHz	K,J,G	45@100MHz	350	1.61	360
CCWI1008-R91□	910@25MHz	K,J,G	35@ 50MHz	320	1.68	330
CCWI1008-1R0□	1000@25MHz	K,J,G	35@ 50MHz	290	1.75	330
CCWI1008-1R2□	1200@7.9MHz	K,J,G	35@ 50MHz	250	2.00	280
CCWI1008-1R5□	1500@7.9MHz	K,J,G	28@ 50MHz	200	2.30	280
CCWI1008-1R8□	1800@7.9MHz	K,J,G	28@ 50MHz	160	2.60	270
CCWI1008-2R2□	2200@7.9MHz	K,J,G	22@ 50MHz	160	2.80	250
CCWI1008-2R7□	2700@7.9MHz	K,J,G	22@ 25MHz	140	4.78	250
CCWI1008-3R3□	3300@7.9MHz	K,J,G	22@ 25MHz	110	5.26	250
CCWI1008-3R9□	3900@7.9MHz	K,J,G	20@ 25MHz	100	5.75	230
CCWI1008-4R7□	4700@7.9MHz	K,J,G	18@ 25MHz	90	6.30	230

NOTE: □Tolerance value: G= ±2%, J= ±5%, K= ±10%, M= ±20%.

Wound Inductors – CFWI0805/1008 Series

CFWI0805 Series

Part Number	Inductance (nH)	Tolerance (%)	Q Min	S.R.F (MHz) Min	DCR (Ω) Max	Rated DC Current (mA)Max
CFWI0805-R33□	330@100MHz	J,K,M	35@100MHz	630	0.60	400
CFWI0805-R39□	390@100MHz	J,K,M	35@100MHz	580	0.66	350
CFWI0805-R47□	470@100MHz	J,K,M	35@100MHz	530	0.72	300
CFWI0805-R56□	560@25MHz	J,K,M	20@100 MHz	520	0.81	280
CFWI0805-R68□	680@25MHz	J,K,M	34@100 MHz	400	0.86	250
CFWI0805-R82□	820@25MHz	J,K,M	34@100 MHz	370	0.92	240
CFWI0805-R91□	910@25MHz	J,K,M	33@100 MHz	350	0.98	240
CFWI0805-1R0□	1000@7.9MHz	J,K,M	26@50 MHz	320	1.08	250
CFWI0805-1R2□	1200@7.9MHz	J,K,M	26@50 MHz	270	1.13	220
CFWI0805-1R5□	1500@7.9MHz	J,K,M	25@50 MHz	200	1.73	200
CFWI0805-1R8□	1800@7.9MHz	J,K,M	23@50 MHz	150	2.40	180
CFWI0805-2R2□	2200@7.9MHz	J,K,M	22@25 MHz	140	2.65	130
CFWI0805-2R7□	2700@7.9MHz	J,K,M	10@7.9 MHz	220	3.30	120
CFWI0805-3R3□	3300@7.9MHz	J,K,M	10@7.9 MHz	190	3.60	100

NOTE: □Tolerance value: J = ±5%, K = ±10%, M = ±20%.

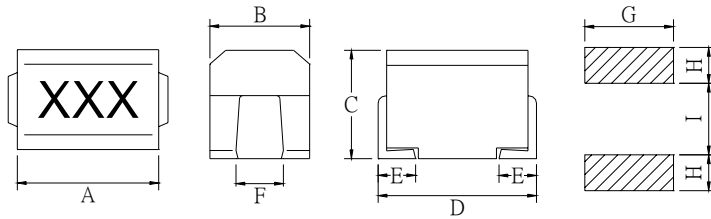
CFWI1008 Series

Part Number	Inductance (nH)	Tolerance (%)	Q Min	S.R.F (MHz) Min	DCR (Ω) Max	Rated DC Current (mA)Max
CFWI1008-R47□	470@7.9MHz	J,K,M	47@ 50MHz	430	0.40	800
CFWI1008-R56□	560@7.9MHz	J,K,M	46 @ 50MHz	380	0.43	770
CFWI1008-R62□	620@7.9MHz	J,K,M	45 @ 50MHz	340	0.43	770
CFWI1008-R68□	680@7.9MHz	J,K,M	43 @ 50MHz	320	0.48	750
CFWI1008-R75□	750@7.9MHz	J,K,M	42 @ 50MHz	300	0.55	730
CFWI1008-R82□	820@7.9MHz	J,K,M	40 @ 50MHz	290	0.61	710
CFWI1008-R91□	910@7.9MHz	J,K,M	40 @ 50MHz	270	0.67	690
CFWI1008-1R0□	1000@7.9MHz	J,K,M	38 @ 50MHz	260	0.72	670
CFWI1008-1R2□	1200@7.9MHz	J,K,M	35 @ 50MHz	250	0.78	650
CFWI1008-1R5□	1500@7.9MHz	J,K,M	35 @ 50MHz	200	0.85	630
CFWI1008-1R8□	1800@7.9MHz	J,K,M	33 @ 50MHz	170	1.10	600
CFWI1008-2R2□	2200@7.9MHz	J,K,M	30 @ 50MHz	160	1.25	520
CFWI1008-2R7□	2700@7.9MHz	J,K,M	27 @ 50MHz	120	1.50	490
CFWI1008-3R3□	3300@7.9MHz	J,K,M	25 @ 7.9MHz	120	2.40	450
CFWI1008-3R9□	3900@7.9MHz	J,K,M	25 @ 7.9MHz	110	2.70	420
CFWI1008-4R7□	4700@7.9MHz	J,K,M	25 @ 7.9MHz	100	2.90	400
CFWI1008-5R6□	5600@7.9MHz	J,K,M	20 @ 7.9MHz	80	3.10	380
CFWI1008-6R8□	6800@7.9MHz	J,K,M	20 @ 7.9MHz	60	3.40	360
CFWI1008-8R2□	8200@7.9MHz	J,K,M	20 @ 7.9MHz	40	3.90	330
CFWI1008-100□	10000@2.5MHz	J,K,M	15 @ 2.5MHz	60	4.30	300

NOTE: □Tolerance value: J= ±5%, K= ±10%,M= ±20%.

EXTERNAL DIMMENSIONS

(Unit:m/m)



Type	A	B	C	D	E	F	G	H	I	Page
CSMFI322522	2.9±0.2	2.5±0.2	2.2±0.2	3.2±0.2	0.6	1.0	3	1.0	2	72
CSMFI453232	4.2±0.2	3.2±0.2	3.2±0.2	4.5±0.2	1.0	1.2	4	1.5	3	73

Features

- CSMFI are Youth' line of high performance wound chip inductors. The CSMFI Wound Inductors are constructed with a wire wound structure and have a higher current capacity than multiplayer chip inductors. Have high quality characteristics suitable for your design needs.

Applications

The CSMFI chip inductors can be used in a variety of electronics, including:

- Computers
- Computer Peripheral
- Cordless Phones
- OA product
- VCRs

Wound Inductors – CSMFI322522 Series

CSMFI322522 Series

Part Number	Inductance (μH)	Q Min.	Test Frequency (MHz)	S. R. F (MHz) Min.	DCR (Ω) Max.	Rated DC Current (mA)Max.
CSMFI322522-R10M	0.10	28	100	700	0.44	450
CSMFI322522-R12M	0.12	30	25.2	500	0.22	450
CSMFI322522-R15M	0.15	30	25.2	450	0.25	450
CSMFI322522-R18M	0.18	30	25.2	400	0.28	450
CSMFI322522-R22M	0.22	30	25.2	350	0.32	450
CSMFI322522-R27M	0.27	30	25.2	320	0.36	450
CSMFI322522-R33M	0.33	30	25.2	300	0.40	450
CSMFI322522-R39M	0.39	30	25.2	250	0.45	450
CSMFI322522-R47M	0.47	30	25.2	220	0.50	450
CSMFI322522-R56M	0.56	30	25.2	180	0.55	450
CSMFI322522-R68M	0.68	30	25.2	160	0.60	450
CSMFI322522-R82M	0.82	30	25.2	140	0.65	450
CSMFI322522-1R0K	1.0	30	7.96	120	0.70	400
CSMFI322522-1R2K	1.2	30	7.96	100	0.75	390
CSMFI322522-1R5K	1.5	30	7.96	85	0.85	370
CSMFI322522-1R8K	1.8	30	7.96	80	0.90	350
CSMFI322522-2R2K	2.2	30	7.96	75	1.00	320
CSMFI322522-2R7K	2.7	30	7.96	70	1.10	290
CSMFI322522-3R3K	3.3	30	7.96	60	1.20	260
CSMFI322522-3R9K	3.9	30	7.96	55	1.30	250
CSMFI322522-4R7K	4.7	30	7.96	50	1.50	220
CSMFI322522-5R6K	5.6	30	7.96	47	1.60	200
CSMFI322522-6R8K	6.8	30	7.96	43	1.80	180
CSMFI322522-8R2K	8.2	30	7.96	40	2.00	170
CSMFI322522-100K	10	30	2.52	36	2.10	150
CSMFI322522-120K	12	30	2.52	33	2.50	140
CSMFI322522-150K	15	30	2.52	28	2.80	130
CSMFI322522-180K	18	30	2.52	25	3.30	120
CSMFI322522-220K	22	30	2.52	23	3.70	110
CSMFI322522-270K	27	30	2.52	18	5.00	80
CSMFI322522-330K	33	30	2.52	17	5.60	70
CSMFI322522-390K	39	30	2.52	16	6.40	65
CSMFI322522-470K	47	30	2.52	15	7.00	60
CSMFI322522-560K	56	30	2.52	13	8.00	55
CSMFI322522-680K	68	30	2.52	12	9.00	50
CSMFI322522-820K	82	30	2.52	11	10.0	45
CSMFI322522-101K	100	20	0.796	10	11.0	40

NOTE: Tolerance value: K= ±10%, M= ±20%.

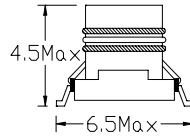
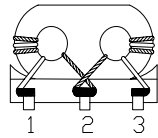
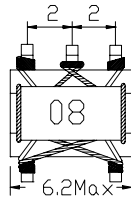
CSMFI453232 Series

Part Number	Inductance (μH)	Q Min.	Test Frequency (MHz)	S. R. F (MHz) Min.	DCR (Ω) Max.	Rated DC Current (mA) Max.
CSMFI453232-R10M	0.10	35	25.2	300	0.18	800
CSMFI453232-R12M	0.12	35	25.2	280	0.20	770
CSMFI453232-R15M	0.15	35	25.2	250	0.22	730
CSMFI453232-R18M	0.18	35	25.2	220	0.24	700
CSMFI453232-R22M	0.22	40	25.2	200	0.25	665
CSMFI453232-R27M	0.27	40	25.2	180	0.26	635
CSMFI453232-R33M	0.33	40	25.2	165	0.28	605
CSMFI453232-R39M	0.39	40	25.2	150	0.30	570
CSMFI453232-R47M	0.47	40	25.2	145	0.32	545
CSMFI453232-R56M	0.56	40	25.2	140	0.36	520
CSMFI453232-R68M	0.68	40	25.2	135	0.40	500
CSMFI453232-R82M	0.82	40	25.2	130	0.45	475
CSMFI453232-1R0K	1.0	50	7.96	100	0.50	450
CSMFI453232-1R2K	1.2	50	7.96	80	0.55	430
CSMFI453232-1R5K	1.5	50	7.96	70	0.60	410
CSMFI453232-1R8K	1.8	50	7.96	60	0.65	390
CSMFI453232-2R2K	2.2	50	7.96	55	0.70	380
CSMFI453232-2R7K	2.7	50	7.96	50	0.75	370
CSMFI453232-3R3K	3.3	50	7.96	45	0.80	355
CSMFI453232-3R9K	3.9	50	7.96	40	0.90	330
CSMFI453232-4R7K	4.7	50	7.96	35	1.00	315
CSMFI453232-5R6K	5.6	50	7.96	33	1.10	300
CSMFI453232-6R8K	6.8	50	7.96	27	1.20	285
CSMFI453232-8R2K	8.2	50	7.96	25	1.40	270
CSMFI453232-100K	10	50	2.52	20	1.60	250
CSMFI453232-120K	12	50	2.52	18	2.00	225
CSMFI453232-150K	15	50	2.52	17	2.50	200
CSMFI453232-180K	18	50	2.52	15	2.80	190
CSMFI453232-220K	22	50	2.52	13	3.20	180
CSMFI453232-270K	27	50	2.52	12	3.60	170
CSMFI453232-330K	33	50	2.52	11	4.00	160
CSMFI453232-390K	39	50	2.52	10	4.50	150
CSMFI453232-470K	47	50	2.52	10	5.00	140
CSMFI453232-560K	56	50	2.52	9.0	5.50	135
CSMFI453232-680K	68	50	2.52	9.0	6.00	130
CSMFI453232-820K	82	50	2.52	8.0	7.00	120
CSMFI453232-101K	100	40	0.796	8.0	8.00	110
CSMFI453232-121K	120	40	0.796	6.0	8.00	110
CSMFI453232-151K	150	40	0.796	5.0	9.00	105
CSMFI453232-181K	180	40	0.796	5.0	9.50	102
CSMFI453232-221K	220	40	0.796	4.0	13.0	100
CSMFI453232-271K	270	40	0.796	4.0	12.0	92
CSMFI453232-331K	330	40	0.796	3.5	14.0	85
CSMFI453232-391K	390	40	0.796	3.0	18.0	80
CSMFI453232-471K	470	40	0.796	3.0	26.0	62
CSMFI453232-561K	560	30	0.796	3.0	30.0	50
CSMFI453232-681K	680	30	0.796	3.0	30.0	50
CSMFI453232-821K	820	30	0.796	2.5	35.0	30
CSMFI453232-102K	1000	20	0.252	2.5	40.0	30

NOTE: Tolerance value: K= ±10%, M= ±20%.

EXTERNAL DIMENSIONS

(Unit: m/m)



Part Number	Winding Turns	Operating Frequency Range	Insertion Loss	Pin Connection Fig.	
Double Balanced Mixer					
CB001-1003A	3x4	8MHz~800MHz	3.5 dB Max.	1	
CB001-1005A	2x4	400MHz~1.3GHz	4 dB Max.	1	
CB001-1008A	4x4	6MHz~600MHz	2.5 dB Max.	1	
CB001-1011A	5x4	5MHz~500MHz	2 dB Max.	1	
CB001-1012A	1x4	50MHz~400MHz	10 dB Max.	1	
CB001-1013A	2x4	10MHz~1.0GHz	6 dB Max.	1	
Frequency Mixer					
	Pri	Sec			
CB001-1024A	3 x 2	3	3.5MHz~470MHz	3 dB Max.	2
CB001-1052A	2 x 2	2	9MHz~350MHz	3 dB Max.	2
CB001-1085A	1 x 2	1	—	3 dB Max.	2
CB001-1086A	4 x 2	4	2.2MHz~400MHz	3 dB Max	2
CB001-1087A	5 x 2	5	1.5MHz~300MHz	3 dB Max	2
Distributor					
CB002-1014A	—	20MHz~600MHz	IN to OUT-1,2 4.5 dB Max. OUT-1 to OUT-2 (ISOLATION) 10 dB Min.	3	
Directional Coupler					
CB001-1006A	5	6MHz~600MHz	IN to OUT-1 0.9 dB Max. IN to OUT-2 13~16 dB	4	
CB001-1007A	6	6MHz~600MHz	IN to OUT-1 0.8 dB Max. IN to OUT-2 15~17 dB	4	
CB001-1015A	4	6MHz~600MHz	IN to OUT-1 1.3 dB Max. IN to OUT-2 11~14 dB	4	

Features

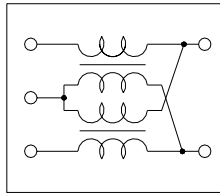
- Pair wire coil for high stability.

- Base pin terminal treated, allowing mounting “as is” on a PCB

Applications

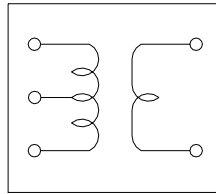
- Double balance mixers, broad-band transformers, impedance transformers, etc.

Pin Connection



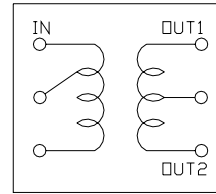
Double Balanced Mixer
Coupler

Fig.1



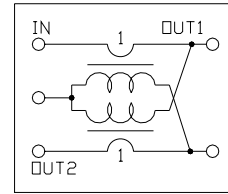
Transformer

Fig.2



Distributor

Fig.3



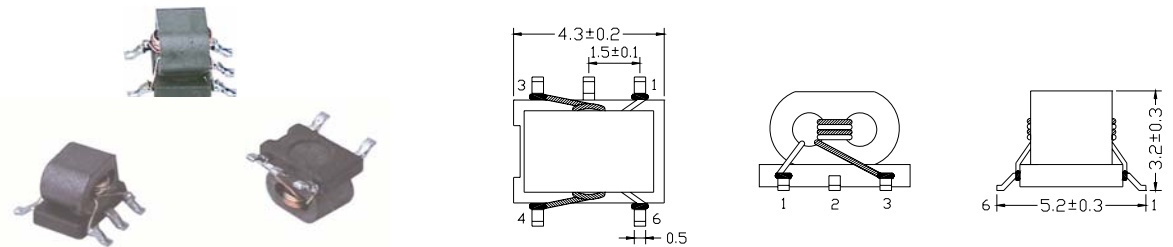
Directional

Fig.4

Balun Transformers – CB006 Series

EXTERNAL DIMENSIONS

(Unit: m/m)



Part Number	Winding Turns	Operating Frequency Range (MHz)	Insertion Loss (dB)	Pin Connection Fig.
Double Balanced Mixer				
CB006-1007A	2	25MHz ~ 2000MHz	3	1
CB006-1009A	3	6MHz ~ 2000MHz	3	1
CB006-1006A	3	150MHz ~ 2300MHz	3	1
CB006-1010A	4	3.5MHz ~ 2000MHz	3	1
CB006-1018A	5	2MHz ~ 2000MHz	3	1
Frequency mixer				
CB006-1025A	1	—		2
CB006-1019A	2	8MHz ~ 750MHz	3	2
CB006-1026A	3	3.5MHz ~ 700MHz	3	2
Balun transformer				
CB006-1021A	1.5	20MHz ~ 750 MHz	3	3
CB006-1022A	2.5	4.5MHz ~ 3300MHz	3	3
CB006-1023A	3.5	2.3MHz ~ 2700MHz	3	3
CB006-1024A	4.5	1.5MHz ~ 2400MHz	3	3
DISTRIBUTOR				
CB006-1079A	2	1300MHz ~ 1700MHz	IN to OUT-1,2 4.5dB Max.	4
CB006-1076A	3	800MHz ~ 1000MHz	OUT-1 to OUT-2 (ISOLATION) 15dB Min.	4

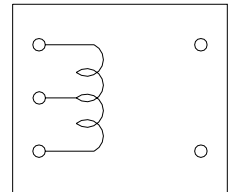
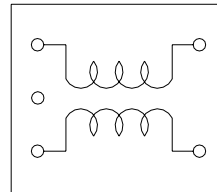
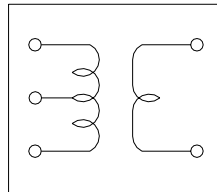
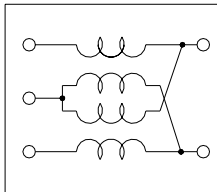
Features

- Pair wire coil for high stability.
- Base pin terminal treated, allowing mounting “as is” on a PCB

Applications

- Double balance mixers, broad-band transformers, impedance transformers, etc.

Pin Connection



Double Balanced

Mixer Transformer

Balun Transformer

Distributor

Fig.1

Fig.2

Fig.3

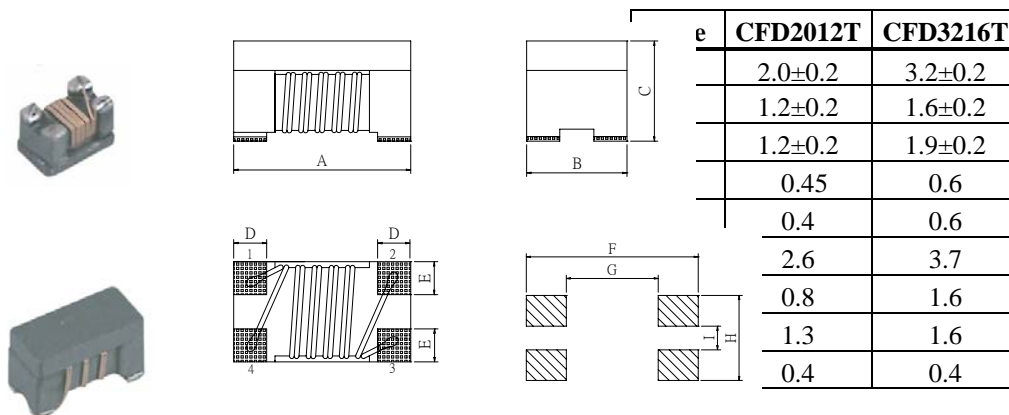
Fig.4

Common Mode Choke – CFD2012/3216 For USB2.0/IEEE1394

EXTERNAL

DIMENSIONS

(Unit: m/m)



Part Number	Common Mode Impedance @100MHz Min (Typ.)	Rated Current (Max)	DC Resistance (Max)	Rated Voltage	Withstanding Voltage	Insulation Resistance
CFD2012T-670	47Ω (67Ω)	400mA	0.25Ω	50VDC	125VDC	10MΩ Min (1 Minute)
CFD2012T-900	63Ω (90Ω)	330mA	0.35Ω			
CFD2012T-121	84Ω (120Ω)	370mA	0.30Ω			
CFD2012T-181	126Ω (180Ω)	330mA	0.35Ω			
CFD2012T-261	182Ω (260Ω)	300mA	0.40Ω			
CFD2012T-371	259Ω (370Ω)	280mA	0.45Ω			
CFD3216T-900	63Ω (90Ω)	370mA	0.30Ω	50VDC	125VDC	10MΩ Min (1Minute)
CFD3216T-161	112Ω (160Ω)	340mA	0.40Ω			
CFD3216T-261	182Ω (260Ω)	310mA	0.50Ω			
CFD3216T-601	420Ω (600Ω)	260mA	0.80Ω			
CFD3216T-102	700Ω (1000Ω)	230mA	1.00Ω			
CFD3216T-222	1540Ω (2200Ω)	200mA	1.20Ω			

Test Equipment and Conditions

- Impedance measured using HP-4291B impedance analyzer with HP-16193 test fixture.
- DC Resistance with HP-4286A LCR meter.
- Operating temperature : -40℃~ +85℃.

Features

- These series realizes small size and low profile.
- High common mode impedance at high frequency effects excellent noise suppression performance.
- Various common mode impedance items can be used, considering noise level and signal frequency.

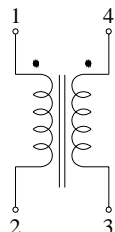
- Suitable for differential signal line like USB2.0, IEEE1394 and LVDS, because CFD3216/2012 does not provide distortion to high speed signal transmission due to its high coupling.
- Lead is not contained in the product.
- Small dimension enables higher density packaging.

Applications

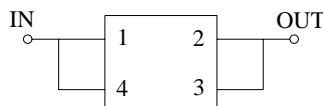
- Common mode noise suppression of signal lines in high speed and high density digital equipment such as personal computers and peripherals.

Common Mode Choke – CFD2012/3216 For USB2.0/IEEE1394

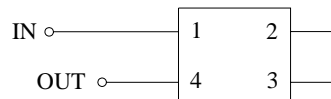
Circuit:



Test Mode:



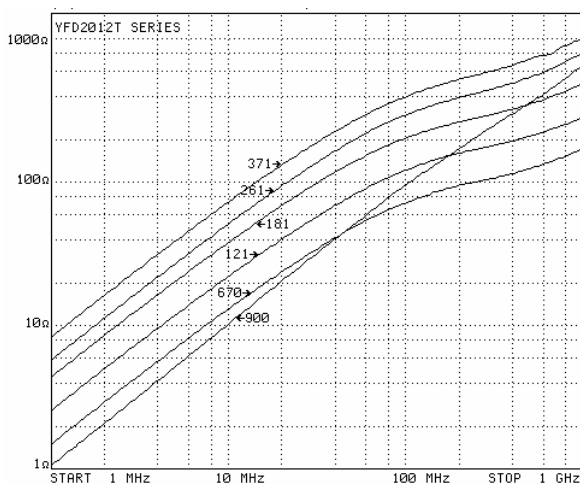
COMMON MODE



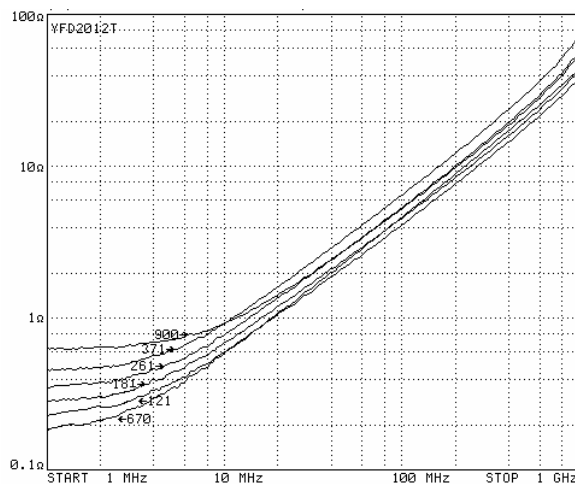
NORMAL MODE

Impedance & Frequency

CFD2012T Series

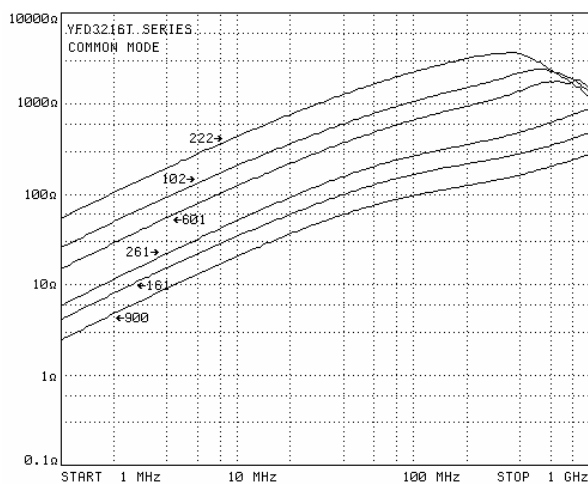


COMMON MODE

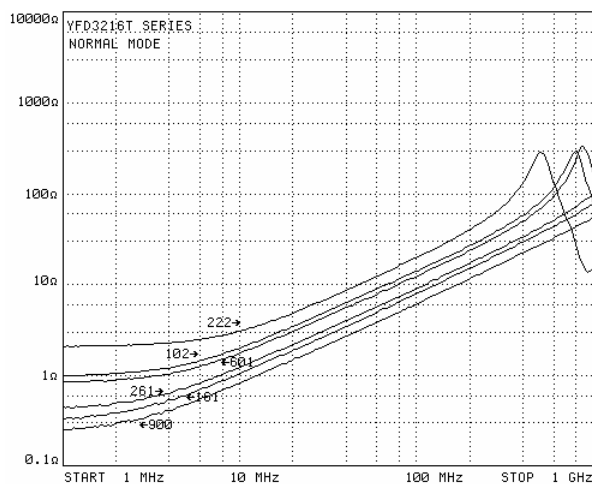


NORMAL MODE

CFD3216T Series



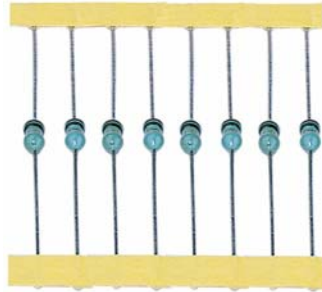
COMMON MODE



NORMAL MODE

Introduction

Youth's axial epoxy coils are coated by 5 layers insulating varnish and epoxy resins provides excellent quality & performance, the coatings are available with tan color and red's except standard green's, suitable for high density & high speed automatic insertion.



EXTERNAL DIMENSIONS

(Unit:m/m)

Dimensions of main product

Type Code: N

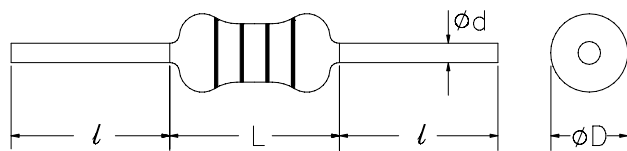


Fig. 1

Type Code: U

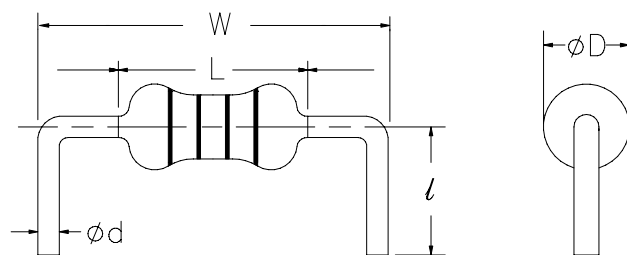
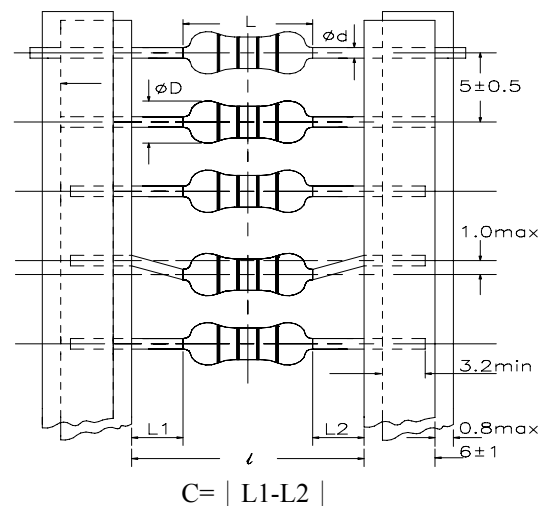


Fig. 2

Taping dimensions

Type Code: T



$$C = | L1 - L2 |$$

Fig. 3

Type	L	φD	l	φd	W	C	Fig. No.
CD122N	4 Max.	2.5 Max.	28 ± 2	0.50±0.05			1
CD124N	7 Max.	3.0 Max.	28 ± 2	0.50±0.05			1
CD136N	10 Max.	4.0 Max.	28 ± 2	0.65±0.05			1
CD1356N	10 Max.	4.5 Max.	28 ± 2	0.65±0.05			1
CD146N	11 Max.	5.0 Max.	28 ± 2	0.65±0.05			1
CD122U	4 Max.	2.5 Max.	7.0 ± 2	0.50±0.05	6		2
CD124U	7 Max.	3.0 Max.	7.0 ± 2	0.50±0.05	10		2
CD136U	10 Max.	4.0 Max.	7.0 ± 2	0.65±0.05	12.5		2
CD1356U	10 Max.	4.5 Max.	7.0 ± 2	0.65±0.05	12.5		2
CD146U	11 Max.	5.0 Max.	7.0 ± 2	0.65±0.05	12.5		2
CD122T	4 Max.	2.5 Max.	52 ± 1.5	0.50±0.05		1.5	3
CD124T	7 Max.	3.0 Max.	52 ± 1.5	0.50±0.05		1.5	3
CD136T	10 Max.	4.0 Max.	52 ± 1.5	0.65±0.05		1.5	3
CD1356T	10 Max.	4.5 Max.	52 ± 1.5	0.65±0.05		1.5	3
CD146T	11 Max.	5.0 Max.	52 ± 1.5	0.65±0.05		1.5	3

CD122-TYPE CONFIGURATION

ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Self-Resonant Frequency (MHz)Min.	DC Resistance (Ω)Max.	Rated DC Current (mA)Max.	Test Frequency (MHz)
CD122□□-0R22M	0.22	±20	35	150	0.40	400	25.2
CD122□□-0R27M	0.27	±20	35	150	0.43	380	25.2
CD122□□-0R33M	0.33	±20	35	150	0.48	370	25.2
CD122□□-0R39M	0.39	±20	35	150	0.51	350	25.2
CD122□□-0R47M	0.47	±20	35	150	0.56	330	25.2
CD122□□-0R56M	0.56	±20	35	150	0.61	320	25.2
CD122□□-0R68M	0.68	±20	35	150	0.67	310	25.2
CD122□□-0R82M	0.82	±20	35	150	0.74	290	25.2
CD122□□-1R0M	1.0	±20	35	150	0.80	270	25.2
CD122□□-1R2K	1.2	±10	40	110	0.90	260	7.96
CD122□□-1R5K	1.5	±10	40	80	1.0	250	7.96
CD122□□-1R8K	1.8	±10	40	60	1.1	240	7.96
CD122□□-2R2K	2.2	±10	40	45	1.2	230	7.96
CD122□□-2R7K	2.7	±10	40	40	1.3	220	7.96
CD122□□-3R3K	3.3	±10	40	38	1.4	210	7.96
CD122□□-3R9K	3.9	±10	40	35	1.6	200	7.96
CD122□□-4R7K	4.7	±10	40	32	1.7	190	7.96
CD122□□-5R6K	5.6	±10	40	30	1.9	180	7.96
CD122□□-6R8K	6.8	±10	40	28	2.0	175	7.96
CD122□□-8R2K	8.2	±10	40	26	2.2	165	7.96
CD122□□-100K	10	±10	40	24	2.5	160	7.96
CD122□□-120K	12	±10	40	22	2.5	150	2.52
CD122□□-150K	15	±10	40	20	2.8	145	2.52
CD122□□-180K	18	±10	40	18	3.1	140	2.52
CD122□□-220K	22	±10	40	17	3.4	130	2.52
CD122□□-270K	27	±10	40	16	4.3	80	2.52
CD122□□-330K	33	±10	40	14	4.7	76	2.52
CD122□□-390K	39	±10	40	13	5.2	74	2.52
CD122□□-470K	47	±10	40	12	5.8	70	2.52
CD122□□-560K	56	±10	40	11	6.4	68	2.52
CD122□□-680K	68	±10	40	10	7.2	64	2.52
CD122□□-820K	82	±10	40	9.5	11	46	2.52
CD122□□-101K	100	±10	40	9.0	12	44	2.52
CD122□□-121K	120	±10	40	8.0	13	42	0.796
CD122□□-151K	150	±10	40	6.0	16	39	0.796
CD122□□-181K	180	±10	40	5.5	18	37	0.796
CD122□□-221K	220	±10	40	5.0	20	35	0.796

Coating Process

These Inductors for CD122,CD124,CD136,CD1356,CD146 type are coated by 6 coating steps:

First, They are coated by UV-321 separately on 1st & 2nd layers.

Then, They are coated by epoxy separately on 3rd, 4TH & 5TH layers.

Finally, They are marked with color code.

Outing epoxy color Tan ,Green & Red colors are available.

CD124-TYPE CONFIGURATION

ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Self-Resonant Frequency (MHz)Min.	DC Resistance (Ω)Max.	Rated DC Current (mA)Max.	Test Frequency (MHz)
CD124□□-0R22M	0.22	±20	40	380	0.075	1150	25.2
CD124□□-0R27M	0.27	±20	40	360	0.08	1110	25.2
CD124□□-0R33M	0.33	±20	40	350	0.08	1110	25.2
CD124□□-0R39M	0.39	±20	40	320	0.09	1000	25.2
CD124□□-0R47M	0.47	±20	40	300	0.10	1000	25.2
CD124□□-0R56M	0.56	±20	40	280	0.11	950	25.2
CD124□□-0R68M	0.68	±20	40	250	0.12	900	25.2
CD124□□-0R82M	0.82	±20	40	200	0.12	900	25.2
CD124□□-1R0M	1.0	±20	40	180	0.15	815	25.2
CD124□□-1R2K	1.2	±10	45	165	0.18	740	7.96
CD124□□-1R5K	1.5	±10	45	150	0.20	700	7.96
CD124□□-1R8K	1.8	±10	45	125	0.23	655	7.96
CD124□□-2R2K	2.2	±10	45	110	0.25	630	7.96
CD124□□-2R7K	2.7	±10	45	95	0.28	595	7.96
CD124□□-3R3K	3.3	±10	45	70	0.30	575	7.96
CD124□□-3R9K	3.9	±10	45	65	0.32	555	7.96
CD124□□-4R7K	4.7	±10	45	50	0.35	530	7.96
CD124□□-5R6K	5.6	±10	45	40	0.40	500	7.96
CD124□□-6R8K	6.8	±10	45	30	0.45	470	7.96
CD124□□-8R2K	8.2	±10	45	28	0.55	425	7.96
CD124□□-100K	10	±10	45	22	0.72	370	7.96
CD124□□-120K	12	±10	45	20	0.80	350	2.52
CD124□□-150K	15	±10	45	16	0.88	335	2.52
CD124□□-180K	18	±10	45	15	1.00	315	2.52
CD124□□-220K	22	±10	45	13	1.20	285	2.52
CD124□□-270K	27	±10	45	11	1.35	270	2.52
CD124□□-330K	33	±10	45	10	1.50	255	2.52
CD124□□-390K	39	±10	45	9.5	1.70	240	2.52
CD124□□-470K	47	±10	45	8.5	2.30	205	2.52
CD124□□-560K	56	±10	45	7.5	2.60	195	2.52
CD124□□-680K	68	±10	45	6.5	2.90	185	2.52
CD124□□-820K	82	±10	45	6.0	3.20	175	2.52
CD124□□-101K	100	±10	45	5.5	3.50	165	2.52
CD124□□-121K	120	±10	45	5.4	3.80	160	0.796
CD124□□-151K	150	±10	45	4.75	4.40	150	0.796
CD124□□-181K	180	±10	45	4.35	5.00	140	0.796
CD124□□-221K	220	±10	45	4.0	5.70	130	0.796
CD124□□-271K	270	±10	45	3.7	6.50	120	0.796
CD124□□-331K	330	±10	45	3.4	9.50	100	0.796
CD124□□-391K	390	±10	45	2.8	10.5	95	0.796
CD124□□-471K	470	±10	45	2.55	11.6	90	0.796
CD124□□-561K	560	±10	45	2.35	13	85	0.796
CD124□□-681K	680	±10	45	2.0	18	75	0.796
CD124□□-821K	820	±10	45	1.5	22	65	0.796
CD124□□-102K	1000	±10	45	1.2	26	60	0.796

CD136-TYPE CONFIGURATION

ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Self-Resonant Frequency (MHz)Min.	DC Resistance (Ω)Max.	Rated DC Current (mA)Max.	Test Frequency (MHz)
CD136□□-0R22M	0.22	±20	40	300	0.10	1400	25.2
CD136□□-0R27M	0.27	±20	40	270	0.11	1320	25.2
CD136□□-0R33M	0.33	±20	40	250	0.12	1280	25.2
CD136□□-0R39M	0.39	±20	40	230	0.13	1200	25.2
CD136□□-0R47M	0.47	±20	40	220	0.14	1150	25.2
CD136□□-0R56M	0.56	±20	40	200	0.15	1100	25.2
CD136□□-0R68M	0.68	±20	40	190	0.16	1030	25.2
CD136□□-0R82M	0.82	±20	40	172	0.17	980	25.2
CD136□□-1R0M	1.0	±20	40	157	0.19	920	25.2
CD136□□-1R2K	1.2	±10	60	144	0.21	880	7.96
CD136□□-1R5K	1.5	±10	60	131	0.23	830	7.96
CD136□□-1R8K	1.8	±10	60	121	0.25	790	7.96
CD136□□-2R2K	2.2	±10	60	110	0.28	750	7.96
CD136□□-2R7K	2.7	±10	60	100	0.30	720	7.96
CD136□□-3R3K	3.3	±10	60	94	0.34	670	7.96
CD136□□-3R9K	3.9	±10	60	65	0.37	640	7.96
CD136□□-4R7K	4.7	±10	60	56	0.39	620	7.96
CD136□□-5R6K	5.6	±10	60	48	0.43	590	7.96
CD136□□-6R8K	6.8	±10	60	37	0.48	550	7.96
CD136□□-8R2K	8.2	±10	60	25	0.52	530	7.96
CD136□□-100K	10	±10	60	21	0.58	500	7.96
CD136□□-120K	12	±10	50	19	0.63	480	2.52
CD136□□-150K	15	±10	50	17	0.72	460	2.52
CD136□□-180K	18	±10	50	13	0.77	430	2.52
CD136□□-220K	22	±10	50	9.6	0.84	410	2.52
CD136□□-270K	27	±10	50	7.2	0.94	390	2.52
CD136□□-330K	33	±10	50	6.3	1.03	370	2.52
CD136□□-390K	39	±10	50	6.3	1.12	350	2.52
CD136□□-470K	47	±10	40	6.3	1.22	340	2.52
CD136□□-560K	56	±10	40	6.2	1.34	320	2.52
CD136□□-680K	68	±10	40	5.7	1.47	305	2.52
CD136□□-820K	82	±10	40	5.3	1.62	290	2.52
CD136□□-101K	100	±10	40	4.8	1.80	275	2.52
CD136□□-121K	120	±10	50	3.8	3.70	185	0.796
CD136□□-151K	150	±10	50	3.5	4.20	175	0.796
CD136□□-181K	180	±10	50	3.3	4.60	165	0.796
CD136□□-221K	220	±10	50	3.0	5.10	155	0.796
CD136□□-271K	270	±10	50	2.8	5.80	145	0.796
CD136□□-331K	330	±10	50	2.6	6.40	137	0.796
CD136□□-391K	390	±10	50	2.4	7.00	133	0.796
CD136□□-471K	470	±10	50	2.25	7.70	126	0.796
CD136□□-561K	560	±10	50	2.1	8.50	120	0.796
CD136□□-681K	680	±10	50	1.95	9.40	113	0.796
CD136□□-821K	820	±10	50	1.85	10.50	105	0.796
CD136□□-102K	1000	±10	50	1.4	14.00	100	0.796

CD1356-TYPE CONFIGURATION

ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance L @ 1KHz (μ H)	Tolerance (%)	Q Min.	Self-Resonant Frequency (MHz)Min.	DC Resistance (Ω)Max.	Rated DC Current (mA)Max.
CD1356□□*102K	1000	±10	65 @ 252KHz	1.68	8.4	120
CD1356□□*122K	1200	±10	65 @ 252KHz	1.54	9.7	112
CD1356□□*152K	1500	±10	65 @ 252KHz	1.22	12	96
CD1356□□*182K	1800	±10	65 @ 252KHz	1.18	14	88
CD1356□□*222K	2200	±10	65 @ 252KHz	1.06	16	80
CD1356□□*272K	2700	±10	65 @ 252KHz	1.00	23	72
CD1356□□*332K	3300	±10	65 @ 252KHz	0.95	27	66
CD1356□□*392K	3900	±10	65 @ 252KHz	0.88	32	61
CD1356□□*472K	4700	±10	65 @ 252KHz	0.75	45	56
CD1356□□*562K	5600	±10	55 @ 252KHz	0.70	50	50
CD1356□□*682K	6800	±10	55 @ 252KHz	0.65	57	45
CD1356□□*822K	8200	±10	55 @ 252KHz	0.60	66	42
CD1356□□*103K	10000	±10	30 @ 79.6KHz	0.47	84	38
CD1356□□*123K	12000	±10	30 @ 79.6KHz	0.44	94	32
CD1356□□*153K	15000	±10	30 @ 79.6KHz	0.38	130	28
CD1356□□*183K	18000	±10	30 @ 79.6KHz	0.34	146	24
CD1356□□*223K	22000	±10	30 @ 79.6KHz	0.32	168	20
CD1356□□*273K	27000	±10	30 @ 79.6KHz	0.30	210	18
CD1356□□*303K	30000	±10	30 @ 79.6KHz	0.25	311	16
CD1356□□*333K	33000	±10	30 @ 79.6KHz	0.23	326	14
CD1356□□*393K	39000	±10	30 @ 79.6KHz	0.21	357	12

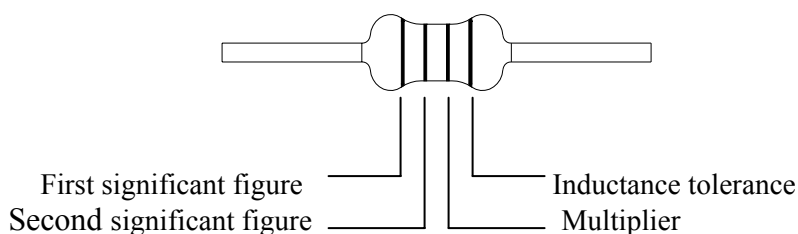
CD146-TYPE CONFIGURATION

ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance L @ 1KHz (μ H)	Tolerance (%)	Q Min.	Self-Resonant Frequency (MHz)Min.	DC Resistance (Ω)Max.	Rated DC Current (mA)Max.
CD146□□*102K	1000	±10	65 @ 252KHz	1.50	5.7	150
CD146□□*122K	1200	±10	65 @ 252KHz	1.50	6.6	140
CD146□□*152K	1500	±10	65 @ 252KHz	1.20	10	120
CD146□□*182K	1800	±10	65 @ 252KHz	1.20	12	110
CD146□□*222K	2200	±10	65 @ 252KHz	1.20	14	100
CD146□□*272K	2700	±10	65 @ 252KHz	0.95	18	90
CD146□□*332K	3300	±10	65 @ 252KHz	0.85	20	83
CD146□□*392K	3900	±10	65 @ 252KHz	0.83	24	76
CD146□□*472K	4700	±10	65 @ 252KHz	0.80	26	70
CD146□□*562K	5600	±10	65 @ 252KHz	0.68	37	62
CD146□□*682K	6800	±10	60 @ 252KHz	0.67	42	56
CD146□□*822K	8200	±10	60 @ 252KHz	0.60	48	52
CD146□□*103K	10000	±10	30 @ 79.6KHz	0.51	75	47
CD146□□*123K	12000	±10	30 @ 79.6KHz	0.47	82	40
CD146□□*153K	15000	±10	30 @ 79.6KHz	0.39	108	35
CD146□□*183K	18000	±10	30 @ 79.6KHz	0.37	120	30
CD146□□*223K	22000	±10	30 @ 79.6KHz	0.33	144	24
CD146□□*273K	27000	±10	30 @ 79.6KHz	0.30	187	18
CD146□□*303K	30000	±10	30 @ 79.6KHz	0.27	200	14
CD146□□*333K	33000	±10	30 @ 79.6KHz	0.27	216	8
CD146□□*393K	39000	±10	30 @ 79.6KHz	0.25	240	7

MARKING

The inductance is marked by color code as listed below.



Type	Color Code	1st & 2nd Figure	Multiplier	Tolerance
	BLACK	0	1	±20%
CC124	BROWN	1	10	--
&	RED	2	100	--
CD122	ORANGE	3	1000	--
&	YELLOW	4	--	--
CD124	GREEN	5	--	--
&	BLUE	6	--	--
CD136	PURPLE	7	--	--
&	GRAY	8	--	--
CD1356	WHITE	9	--	--
&	GOLD	--	0.1	± 5%
CD146	SILVER	--	0.01	±10%

TEST EQUIPMENT

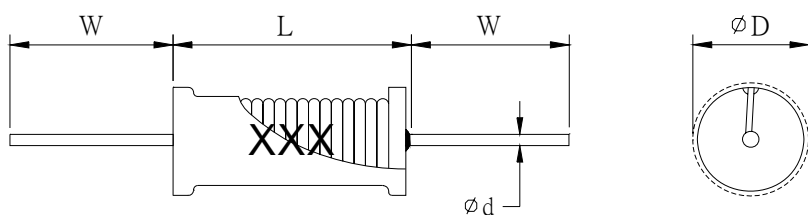
- Inductance & Q are measured by HP-4342A or equiv.
- SRF is measured by ML-2770 or equiv.
- DCR is measured by CH-502A or equiv.
- Rated DC current is measured by HP-42841A or equiv.

CHARACTERISTICS

- Temperature rise.....20°C from ambient temperature.
- Temperature rating.....-25°C to +80°C
- Dielectric withstanding voltage.....250Vrms
- Rated current.....Base on the temperature rise of 20°C Max.
- Terminal tensile strength.....1.0 Kg min.
- Terminal bending strength.....0.3 Kg min.

EXTERNAL DIMENSIONS

(Unit:m/m)



Type	L(Max)	ϕD (Max)	W(± 2)	$\phi d \pm 0.05$
CPCS	16	7.5	25	0.8
CPCL	23	12.5	32	0.8

Test Equipment

- Inductance and rated DC current are measured using HP-4284A LCR meter.
- Meter with HP-42841A bias current meter.
- DCR is measured with CH-502A or equiv.

Characteristics

- Inductance tolerance..... $\pm 10\%$ (Standard)
- Temperature rating..... -25°C to $+80^{\circ}\text{C}$
- Terminal tensile strength.....1.0 Kg min.
- Terminal bending strength.....0.3 Kg min.

Features

- Low cost axial leaded inductors
- High current chokes.
- Wide inductance range.
- Coated with varnish.
- Covered with PVC or UL shrink tubing.
- Can be taped and reeled for auto machine.

Applications

- Power supplies.
- Switching circuits.
- SCR and Triac controls.
- TV and Audio equipment.
- Telecommunication devices.
- RF filters.
- Other filters.

CPCS TYPE CONFIGURATION

Provides Inductance ranging from 3.3 to 18000 μ H

ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance L @ 1KHz (μ H)	DC Resistance (Ω)Max.	Suggested Rated AC Current (A)	Saturation Rated DC Current (A)
CPCS*3R3K	3.3	0.0228	1.28	7.3
CPCS*3R9K	3.9	0.0228	1.28	7.3
CPCS*4R7K	4.7	0.0264	1.28	6.3
CPCS*5R6K	5.6	0.0288	1.28	5.6
CPCS*6R8K	6.8	0.0312	1.28	5.3
CPCS*8R2K	8.2	0.0336	1.28	4.5
CPCS*100K	10	0.0396	1.28	4.1
CPCS*120K	12	0.0444	1.28	3.6
CPCS*150K	15	0.0480	1.28	3.3
CPCS*180K	18	0.0528	1.28	3.0
CPCS*220K	22	0.0600	1.28	2.7
CPCS*250K	25	0.0600	1.28	2.6
CPCS*270K	27	0.0672	1.28	2.5
CPCS*330K	33	0.0912	1.008	2.2
CPCS*390K	39	0.1152	0.804	2.0
CPCS*470K	47	0.1284	0.804	1.8
CPCS*560K	56	0.1476	0.804	1.7
CPCS*680K	68	0.1560	0.804	1.5
CPCS*820K	82	0.1820	0.804	1.4
CPCS*101K	100	0.2080	0.632	1.2
CPCS*121K	120	0.2830	0.508	1.1
CPCS*151K	150	0.3400	0.508	1.0
CPCS*181K	180	0.3620	0.508	0.95
CPCS*221K	220	0.4300	0.508	0.86
CPCS*271K	270	0.5570	0.400	0.77
CPCS*331K	330	0.6650	0.400	0.70
CPCS*391K	390	0.7720	0.400	0.64
CPCS*471K	470	1.1500	0.315	0.59
CPCS*561K	560	1.2700	0.315	0.54
CPCS*681K	680	1.1610	0.250	0.49
CPCS*821K	820	1.9600	0.200	0.44
CPCS*102K	1000	2.5000	0.230	0.35
CPCS*122K	1200	2.6500	0.200	0.35
CPCS*152K	1500	3.4500	0.158	0.33
CPCS*182K	1800	4.0300	0.158	0.29
CPCS*222K	2200	4.4800	0.158	0.27
CPCS*272K	2700	5.4000	0.125	0.24
CPCS*332K	3300	6.5600	0.125	0.22
CPCS*392K	3900	8.6300	0.100	0.20
CPCS*472K	4700	9.6600	0.100	0.18
CPCS*562K	5600	13.9000	0.082	0.166
CPCS*682K	6800	16.3000	0.082	0.151
CPCS*822K	8200	20.8000	0.065	0.136
CPCS*103K	10000	30.0000	0.050	0.125
CPCS*123K	12000	29.9000	0.050	0.114
CPCS*153K	15000	42.5000	0.039	0.098
CPCS*183K	18000	48.3000	0.039	0.091

CPCL- TYPE CONFIGURATION

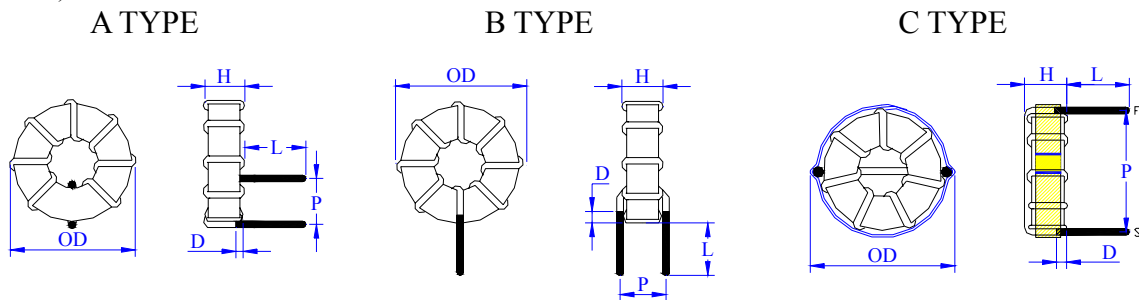
ORDERING CODES AND CHARACTERISTICS

Part Number	Inductance L @ 1KHz (μ H)	DC Resistance (Ω)Max.	Suggested Rated AC Current (A)	Saturation Rated DC Current (A)
CPCL*3R9K	3.9	0.007	4.000	15.50
CPCL*4R7K	4.7	0.008	4.000	13.90
CPCL*5R6K	5.6	0.011	4.000	12.60
CPCL*6R8K	6.8	0.012	4.000	11.60
CPCL*8R2K	8.2	0.013	4.000	9.89
CPCL*100K	10	0.017	4.000	8.70
CPCL*120K	12	0.019	4.000	8.21
CPCL*150K	15	0.022	4.000	7.34
CPCL*180K	18	0.023	4.000	6.64
CPCL*220K	22	0.026	4.000	6.07
CPCL*270K	27	0.027	4.000	5.36
CPCL*330K	33	0.032	4.000	4.82
CPCL*390K	39	0.033	4.000	4.36
CPCL*470K	47	0.035	4.000	3.98
CPCL*560K	56	0.038	3.200	3.66
CPCL*680K	68	0.050	2.500	3.31
CPCL*820K	82	0.060	2.000	3.10
CPCL*101K	100	0.090	1.600	2.79
CPCL*121K	120	0.113	1.600	2.54
CPCL*151K	150	0.129	1.600	2.22
CPCL*181K	180	0.150	1.600	1.98
CPCL*221K	220	0.162	1.600	1.89
CPCL*271K	270	0.208	1.600	1.63
CPCL*331K	330	0.212	1.600	1.51
CPCL*391K	390	0.281	1.600	1.39
CPCL*471K	470	0.380	1.200	1.24
CPCL*561K	560	0.420	1.000	1.17
CPCL*681K	680	0.548	1.000	1.05
CPCL*821K	820	0.655	0.800	0.97
CPCL*102K	1000	0.844	0.800	0.87
CPCL*122K	1200	1.040	0.600	0.79
CPCL*152K	1500	1.180	0.600	0.70
CPCL*182K	1800	1.560	0.600	0.64
CPCL*222K	2200	2.000	0.500	0.58
CPCL*272K	2700	2.060	0.400	0.53
CPCL*332K	3300	2.630	0.400	0.47
CPCL*392K	3900	2.750	0.400	0.43
CPCL*472K	4700	3.190	0.400	0.39
CPCL*562K	5600	3.920	0.315	0.36
CPCL*682K	6800	5.690	0.250	0.32
CPCL*802K	8000	5.800	0.250	0.31
CPCL*822K	8200	6.320	0.250	0.29
CPCL*103K	10000	7.300	0.250	0.27
CPCL*823K	82000	58.000	0.700	0.08

T44/50/60/68 DC TO DC Converter Choke

EXTERNAL DIMENSIONS

(Unit:m/m)



TYPE	RT44			RT50			RT50B			RT60			RT60A			RT68		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
OD Max	15.0	15.0	15.0	18.0	18.0	18.0	18.0	18.0	18.0	21.0	21.0	21.0	21.0	21.0	21.0	22.0	22.0	22.0
H Max	8.5	8.5	9.0	9.5	9.5	10.0	10.5	10.5	11.0	10.5	10.5	11.0	13.5	13.5	14.0	9.5	9.5	10.0
D Min	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
L Min	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
P ±1	5	6	11.5	5	7	15.5	5.5	8.5	15.5	5.5	8	18	6	11	18	7.5	8	20.5

GENERAL MATERIAL PROPERTIES

Materials	Initial Permeability	Permeability With DC Bias HDC=50 Oersted 10KHz	Color Code
52	75	44(59%)	Green/Blue
26	75	38(50%)	Yellow/White
77	55	40(72%)	Red
AP55	53	41(77%)	Green

Features

- Cast affection design.
- Wound on iron powder material toroidal are used in the wide variety of power
- Conversion application.
- Easy PC board mounting

Application:

- Switching power source
- Desk Top
- Note Book
- Charger

Part Number

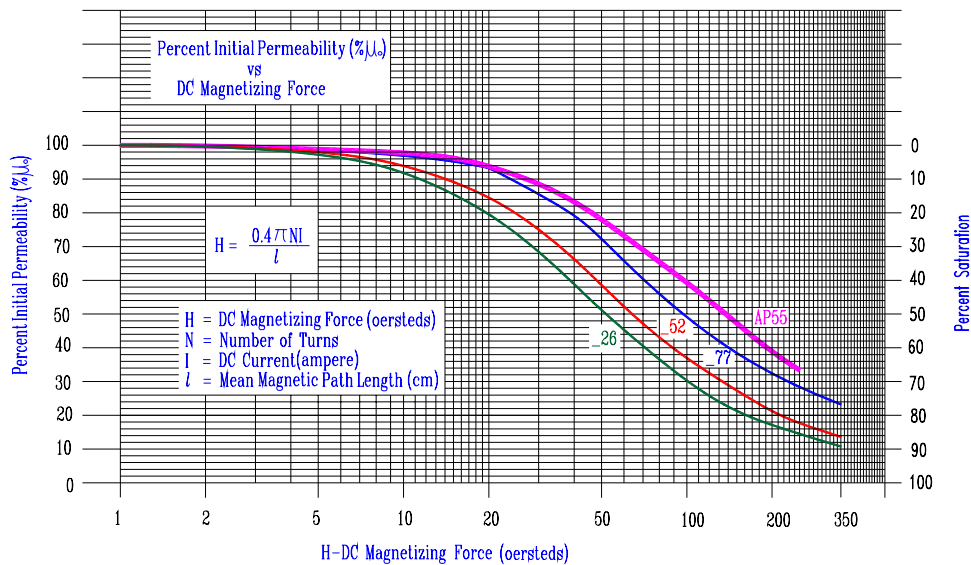
T 50 52 * 1R0 M B

1 2 3 4 5 6

1. Type, Toroidal coils
2. Core size(in inch),Dimensions OD(Ex:50=0.5 inch=12.7mm)
3. Core material
4. Typical inductance value(Ex:1R0=1.0uH)
5. Tolerance value: K:±10%,L:±15%,M: ±20%
6. Type.(A/B/C)

RT44/50/60/68 DC TO DC Converter Choke

Part Number	Inductance (μH) Min.	DC Resistance (mΩ) Max.	I sat (A) Max.	10% Drop DC (A)	20% Drop DC (A)	30% Drop DC (A)	40% Drop DC (A)
T4452*0R9M□	0.9	3.8	3.0	7.6	11.2	15.7	22.1
T4452*2R7M□	2.7	7.0	3.0	4.2	5.8	8.5	11.6
T4455*0R6M□	0.6	1.0	20.0	9.9	17.1	24.3	34.5
T5052*1R0M□	1.0	3.0	10.0	6.7	10.6	14.8	19.5
T5052*1R5M□	1.5	3.5	10.0	6.0	9.1	12.5	16.9
T5052*2R5M□	2.5	4.9	10.0	4.2	7.2	9.8	13.2
T5052*3R0M□	3.0	4.0	15.0	4.1	7.0	9.5	12.5
T5052*4R0M□	4.0	5.8	10.0	4.0	6.5	9.0	12.7
T5052*4R7M□	4.7	4.5	10.0	3.3	5.9	7.6	10.5
T5052B*1R5M□	1.5	2.6	10.0	6.8	12.4	16.8	21.2
T5052B*2R7M□	2.7	7.0	15.0	5.3	8.5	11.5	14.1
T5052B*3R3M□	3.3	3.7	14.0	3.8	6.8	8.9	12.8
T5055B*2R5M□	2.5	4.0	20.0	6.5	10.5	16.0	22.0
T5077*0R6M□	0.6	1.4	20.0	11.9	21.1	31.8	40.0
T5077*0R8M□	0.8	2.1	20.0	10.2	17.9	25.8	36.0
T5077*1R2M□	1.2	2.5	20.0	9.4	15.4	23.1	33.4
T5077*1R5M□	1.5	3.0	20.0	7.0	13.8	20.2	28.2
T6052*2R5M□	2.5	2.7	20.0	5.8	9.4	13.8	18.7
T6052*3R9M□	3.9	4.5	13.0	4.6	8.0	10.8	15.1
T6052*4R7M□	4.7	5.0	10.0	4.4	6.7	8.8	12.8
T6055*0R8M□	0.8	1.8	25.0	18.4	32.1	41.0	48.0
T6055*1R2M□	1.2	1.9	25.0	18.0	26.0	40.0	45.0
T6055*1R6M□	1.6	2.5	20.0	9.6	15.8	25.2	34.9
T6055*2R7M□	2.7	3.5	20.0	8.2	12.5	19.5	27.1
T6055*3R3M□	3.3	5.5	10.0	8.0	12.3	17.8	24.6
T6055*3R9M□	3.9	5.2	20.0	6.2	9.4	15.4	22.1
T6055A*4R2M□	4.2	5.9	18.0	8.4	13.5	20.1	27.4
T6818*1R5M□	1.5	2.2	20.0	10.0	16.0	26.0	35.0
T6818*2R2M□	2.2	2.0	20.0	9.0	14.5	22.0	29.0



Inductor

A passive device that prevents a variance of the current. Magnetic flux is induced in the inductor when current flows through the inductor, and the voltage induced by magnetic flux prevents the change of current. Induced voltage

$$V=L \cdot di/dt$$

Inductance

The property of a circuit element which tends to oppose any change in the current flowing through it. The inductance for a given inductor is influenced by the core material, core shape and size, the turns count and the shape of the coil. Inductors most often have their inductances expressed in microhenries (μH). The following table can be used to convert units of inductance to microhenries. Thus, 56mH would equal 56,000 μH .

$$1 \text{ henry (H)} = 10^6 \mu\text{H}$$

$$1 \text{ millihenry (mH)} = 10^3 \mu\text{H}$$

$$1 \text{ microhenry } \mu\text{H} = 1 \mu\text{H}$$

$$1 \text{ nanohenry (nH)} = 10^{-3} \mu\text{H}$$

Rated Current

Continuous current that can flow in the inductor. It is determined by the maximum temperature rise at the maximum storage temperature range. As rated current is related to power loss of the inductor, DC resistance of the inductor should be lowered or size of the inductor should be increased in order to increase the rated current.

Saturation Current

Current at which the inductance decreased below a critical percent inductance (10% or 20% of the initial inductance) by applying DC current to a inductor. In general the critical percent inductance is 10% for ferrite core, 20% for metal power core. The decrease of inductance is caused by the magnetic characteristics of core. Core can store a certain amount of flux density, but above that flux density the permeability and inductance of core decrease.

DC Resistance [Ω]

Resistance of winding when AC current is not applied.

Impedance

The impedance of an inductor is the total

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resistance to the flow of current, including the AC and DC component. The DC component of the impedance is simply the DC resistance of the winding. The AC component of the impedance includes the inductor reactance. The follow formula calculates the inductive reactance of an ideal inductor (i.e., one with no losses) to a sinusoidal AC signal.

$$Z = X_L = 2\pi fL$$

L is in henries and f is in hertz. This equation indicates that higher impedance levels are achieved by higher inductance values or at higher frequencies. Skin Effect and Core losses also add to the impedance of an inductor.

Self Resonant Frequency, SRF

Frequency at which the resonance appears between distributed capacitance and inductance of an inductor. At this frequency, inductance and capacitance are canceled out and the inductor is almost a resistor having high impedance. Distributed capacitance that arise between wires and between wire and core is parallel with inductance in circuit. Above the self resonant frequency the capacitive reactance is dominant and the inductor works like the capacitor.

Q

The Q value of an inductor is a measure of the relative losses in an inductor. The Q is also known as the “quality factor” and is technically defined as the ratio of inductive reactance to effective resistance and is represented by:

$$Q = \frac{X_L}{R_e} = \frac{2\pi fL}{R_e}$$

Since X_L and R_e are functions of frequency, the test frequency must be given when specifying Q. X_L typically increases with frequency at a faster rate than R_e at lower frequencies, and vice versa at higher frequencies. This results in a bell shaped curve for Q vs frequency. R_e is mainly comprised of the DC resistance of the wire, the core losses and skin effect of the wire. Based on the above formula, it can be shown that the Q is Zero at the self resonant frequency since the inductance is Zero at this point.

Operating Temperature Range

The temperature where a device can be operated normally. Above this temperature, the characteristics of the device become inferior or the device may be operated abnormally. In case of the inductor, this temperature means the temperature rise by the copper loss or core loss. Refer to temperature rise.

Storage Temperature Range

Temperature range in which the characteristics of a device can be preserved.

Ambient Temperature

Temperature around the devices or circuits. Ambient temperature is measured at 0.5inch(1.27cm) away from the devices or circuits.

Curie Temperature, Tc [°C]

The transition temperature above which a core loses its ferromagnetic properties. Usually defined as the temperature at which μ_i falls to 10% of its room temperature value.

Saturation

The point at which the flux density B in a magnetic material does not increase with further applications of greater magnetization force H. At saturation, the slope of a material's B-H characteristic curve becomes extremely small, with the instantaneous permeability approaching that of free space. (relative permeability=1.0)

Temperature Rise (ΔT)

The increase in surface temperature of a component in free-standing air due to the total power dissipation (both copper and core loss). Approximate temperature rise is as follows;

$$\Delta T(^{\circ}\text{C}) = \left[\frac{\text{Total Power Dissipation (Miliwatts)}}{\text{Surface Area}(\text{cm}^2)} \right]^{0.833}$$

Total Power Dissipation = Copper Losses + Core Losses

Skin Effect

As the frequency is higher, current flow is limited to the surface of the wire because the magnetic field in the center of wire increases. The depth from the wire surface at which the

current density at the wire surface decreases by 1/e (37%) is called "skin depth", and this is determined by the conductivity of wire. As the frequency is higher, skin depth decreases and reactance of wire increases and current flow is interfered. Litz wire may be used in order to decrease the skin effect.

Matched Impedance

The condition that exists when two coupled circuits are adjusted so that the output impedance of one circuit equals the input impedance of the other circuit connected to the first. There is a minimum power loss between two circuits when their connecting impedances are equal.

DC-DC Converter

A circuit or device that converts a DC input voltage to a regulated output voltage. The output voltage may be lower, higher or the same as the input voltage. Switching regulator DC-DC circuit most often require an inductor or transformer to achieve the regulated output voltage. Switching regulator circuits can achieve a higher level of power efficiency when compared to non-switching techniques.

Filter

A circuit or device whose purpose is to control electrical energy at a given frequency or over a range of frequencies. Groups of passive components are commonly used to construct many types of filters. These passive components include resistors, capacitors and inductors.

Axial Inductor

An inductor constructed on a core with concentric leads on opposite ends of the core. Axial inductors are available for both power applications and RF applications, and are available in many core materials including the basic phenolic, ferrite and powdered iron types. Both rod and bobbin shapes are utilized. Axial inductors are very suitable for tape and reel packaging for auto placement.

Shielded Inductor

An inductor designed for its core to contain a majority of its magnetic field. Some inductor

designs are self shielding. Examples of these are magnetic core shapes which include toroids, pot cores and E-cores. Magnetic core shapes such as slug cores and bobbins require the application of a magnetic sleeve or similar method to yield a shielded inductor. It should be noted that magnetic shielding is a matter of degree. A certain percentage of the magnetic field will escape the core material. This is even applicable for toroidal cores as lower core permeabilities will have higher fringing fields than will high permeability toroidal cores.

Multilayer Inductor

An inductor constructed by layering the coil between layers of core material. The coil typically consists of a bare metal material (no insulation). This technology is sometimes referred to as “non-wirewound”. The inductance value can be made larger by adding additional layers for a given spiral pattern.

Molded Inductor

An inductor whose case has been formed via a molding process, common molding processes and sharper corners as compared to other case types such as epoxy coated and shrink wrap coatings.

RF Choke

Another name for a radio frequency inductor which is intended to filter or choke out signals.

Litz Wire

A wire made by twisting and bundling some insulated wire. It can decrease the copper loss at high frequency by reducing the skin effect.

Ceramic Cores

Ceramic is one of the common materials used for inductor cores. Its main purpose is to provide a form for the coil. In some designs it also provides the structure to hold the terminals in place. Ceramic has a very low thermal coefficient of expansion. This allows for relatively high inductance stability over the operating temperature ranges. Ceramic has no magnetic properties. Thus, there is no increase in permeability due to the core material. Ceramic core inductors are often referred to as

“air core” inductors. Ceramic core inductors are most often used in high frequency applications where low inductance values, very low core losses and high Q values are required. (Ex: YC0403, YC0403R, YC0601, YCWI0603/0805/1008 Series)

Powdered Iron Core

Powdered iron is a magnetic material that has an inherent distributed air gap. The distributed air gap allows the core to store higher levels of magnetic flux when compared to other magnetic materials such as ferrites. This characteristic allows a higher DC current level to flow through the inductor before the inductor saturates. Powdered iron cores are made of nearly 100% iron. The iron particles are insulated from each other, mixed with a binder (such as phenolic or epoxy) and pressed into the final core shape. The cores are cured via a baking process. Other characteristics of powdered iron cores include: they are typically the lowest cost alternative and their permeabilities typically have a more stable temperature coefficient than ferrites.

Attenuation

Ratio of output parameter (voltage, current, power, etc.) to input parameter. Unit is [dB]. In case of power, dB is $10\log(\text{output power}/\text{input power})$. In case of current and voltage, dB is $20\log(\text{output current}/\text{input current})$, $20\log(\text{output voltage}/\text{input voltage})$ respectively.

Noise

Unnecessary electrical energy arises in circuit. The main cause of it is clock signal in switching or digital circuit.

Common-Mode Noise

Electrical interference that is common to both in relation to earth ground.

Normal Mode Noise

Refer to Differential Mode Noise.

Differential Mode Noise

Electrical interference that is not common to both lines but is present between both lines. This is also known as normal mode noise.

EMI

Electromagnetic Interference is called EMI in short. Generally, it means unnecessary electrical energies like noise.

EMC Electromagnetic Compatibility

Core Loss

Core loss is composed of eddy current loss, hysteresis loss and residual loss.

Copper Loss [watts]

The power loss (I^2R) or heat generated by current (I) flowing in a winding with resistance (R).

Eddy Current Losses

Eddy current losses are present in both the magnetic core and winding of an inductor. Eddy currents in the winding (or conductor) contribute to two main types of losses: losses due to proximity effects and skin effects. As for the core losses, an electric field around the flux lines in the magnetic field is generated by alternating magnetic flux. This will result in eddy currents if the magnetic core material has electrical conductivity. Losses result from this phenomenon since the eddy currents flow in a plane that is perpendicular to the magnetic flux lines.

Core Sectional Area (A)

The effective cross sectional area of a core available for magnetic flux. The cross sectional area listed for toroidal cores is based on bare core dimensions.

Distributed Capacitance

In an inductor, each winding behaves as a capacitor having the distributed capacitance. Distributed capacitance is parallel with inductance in the circuit and causes self-resonance at a certain frequency. The smaller is the magnitude of distributed capacitance of an inductor, the higher is the self-resonant frequency. So inductor should be wound to have as small distributed capacitance as possible.

Hysteresis Curve (B-H Loop)

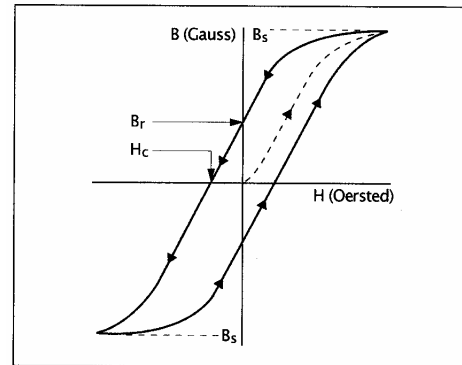


Figure 1. B-H Loop

When the magnetic material is taken through a complete cycle of magnetization and demagnetization, magnetic flux density in that material behaves irreversibly according to change of magnetizing force.

The results are as shown in Figure 2. As H is increased in the neutral magnetic material, flux density B increases along the dashed line (initial magnetization curve) to the saturation point, B_s .

When H is now decreased, the B-H loop transverses a path to B_r (remanent flux density), where H is zero and the core is still magnetized. The magnetizing force H is now reversed to give a negative value. The magnetizing force required to reduce the flux B_r to zero is called the coercive force (H_c). Along the initial magnetization curve, B increases from the origin nonlinearly with H until the material saturates. In practice, the magnetization of a core in an excited inductor never follows this curve, because the core is never in the totally demagnetized state when the magnetizing force is first applied.

Leakage Flux

Leakage flux is the small fraction of the total magnetic flux in a transformer or common mode choke that does not contribute to the magnetic coupling of the windings of the device. The presence of leakage flux in a transformer or common mode choke is modeled as a small "leakage" inductance in series with each winding. In a multi-winding choke or transformer, leakage inductance is the inductance measured at one winding with all

other winding short circuited.

Mean Magnetic Path Length (l)

The effective magnetic path length of a core structure(cm). Refer to Magnetic Design Formulae.

AL Value (nH/N²)

The inductance (nanohenries) of a core for 1 turn winding it is measured at peak AC flux density of 10 gauss and frequency of 10kHz. $1nH/N^2=1mH(1000turns)^2$

Permeability(μ)

In magnetics, permeability is the ability of a material to conduct flux.

The magnitude of the permeability at a given induction is a measure of the ease with which a core material can be magnetized to that induction. It is defined as the ratio of the flux density B to the magnetizing force H.

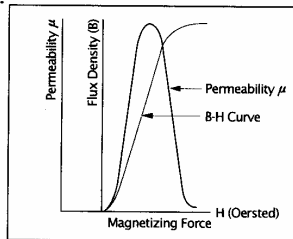


Figure 2. Variation of μ along the Magnetization Curve

Permeability: $\mu=B/H$ [Gauss/Oersted]

The slope of the initial magnetization curve at any given point gives the permeability at that point. Permeability can be plotted against a typical B-H curve as shown in Figure 2. Permeability is not constant, therefore its value can be stated only at a given value of B or H. There are many different kinds of permeability.

Absolute Permeability (μ_0)

Permeability in a vacuum

Initial Permeability(μ_i)

Slope of the initial magnetization curve at the origin, that is, the value of permeability at a peak AC flux density of 10 gauss (1 millitesla).

$\mu=B/H$ (Figure 3)

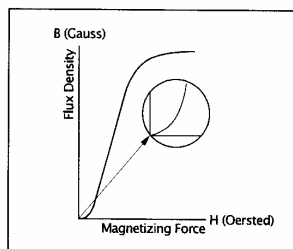


Figure 3. Initial Permeability

Incremental Permeability($\mu\Delta$)

Slope of the magnetization curve for finite values of peak-to-peak flux density with superimposed DC magnetization (Figure 4). Initial permeability can be thought as incremental permeability with 0 DC magnetization at small inductions. The incremental permeability is expressed as the slope of the B-H characteristic at around the given operating point.

$$\mu\Delta = \Delta B / \Delta H$$

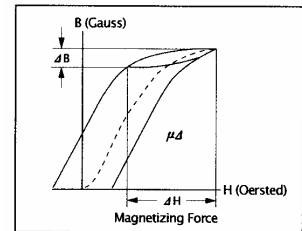


Figure 4. Incremental Permeability

Effective Permeability(μ_e)

If a magnetic circuit is not homogeneous (i.e. contains an air gap), the effective permeability is the permeability of a hypothetical homogeneous (ungapped) structure of the same shape, dimensions, and reluctance that would give the inductance equivalent to the gapped structure.

Relative Permeability(μ_r)

Permeability of a material relative to that of free space.

Maximum permeability(μ_{max})

Slope of a straight line drawn from the origin tangent to the curve at its knee. (Figure 5)

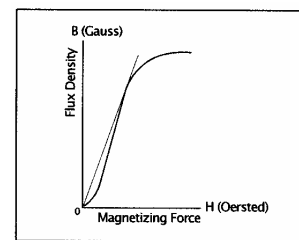


Figure 5. Maximum Permeability

Terminology

TEST EQUIPMENTS

DESCRIPTON	BRAND	MODEL	TEST RANGE
IMPEDANCE ANALYZER	HP	HP-4191A	1MHz~1GHz
		HP-4291B	1MHz~1.8GHz
BIAS CURRENT SOURCE	CHEN HWA	CDC-301	0A~10A
		CH-1320+1320S	0A~40A
	HP	HP-42841A	0A~20A
LCR METER	HP	HP-4263B	100Hz~100KHz
		HP-4284A	20Hz~1MHz
		HP-4285A	75KHz~30MHz
		HP-4286A	1MHz~1GHz
	CHEN HWA	CH-100	120Hz~1KHz
		CH-102	100Hz~1KHz
		CH-1061	40Hz~200KHz
		CH-3302	20Hz~1MHz
		CH987	20Hz~300KHz
Q METER	MEGURO	MQ-161	50KHz~50MHz
		MQ-1601	15.5KHz~50MHz
		MQ-170D	20MHz~230MHz
SRF METER	HO MEI	ML2770	200KHz~400MHz
I.R. METER	CHEN HWA	CH-702A	0.01M~100TΩ
OHM METER	CHEN HWA	CH-502A	10u~200KΩ
HIPOT TEST	YANZHI	YD2672	0.1KV~5KV
	TOPWARD	TPT-500	1KV~5KV
UNIVERSAL XFMR SAFETY TESTR	MICROTEST	TF-6885FH	0.5V~5KV
RF NETWORK ANALYZER	HP	HP-8711B	300KHz~1.3GHz
		HP-8714C	300KHz~3.0GHz