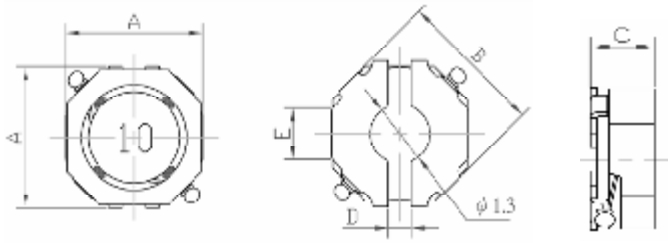
BRI SERIES

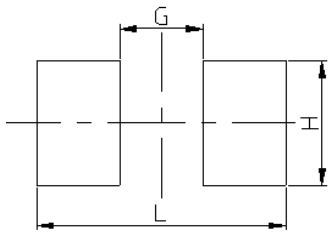
SHIELDED SMT POWER INDUCTOR

Applications :

- DSC, DVC , PDA products.
- Hand phone of new generation.
- Hard disk drives.

Shape and Dimensions (Dimensions are in mm) :





Item	A	B	C Max.	D	E
BRI2D10	3.0±0.2	3.2	1.0	0.5	1.0
BRI2D12	3.0±0.2	3.2	1.2	0.5	1.0
BRI2D15	3.0±0.2	3.2	1.5	0.5	1.0
BRI2D18	3.0±0.2	3.2	1.8	0.5	1.0

Item	G	H	L
BRI2D10	1.0	3.0	3.0
BRI2D12	1.8	1.2	3.2
BRI2D15	1.8	1.2	3.2
BRI2D18	1.8	1.2	3.2

Features :

- Automatic process.
- New designed terminal for low cost.
- Low profile and high current.
- Magnetically shielded construction.
- Ideal for digital equipment and hand phone of new generation.
- RoHS compliant.

Characteristics :

- Saturation Current (Isat) : The current when the inductance becomes 30% lower than its initial value (Ta=20℃).
- Temperature Rise(Irms):The current when temperature of coil increase up to max.△T=40℃.(Ta=20℃).
- Operating Temperature : -40℃ to 105℃.

Product identification :

BRI2D10 - **100** **M**

(1) (2) (3)

(1) Type : Surface mountable type.

Style : Copper **B**ase with DR core and **RI** core

2D is 3.0mm square and **10** is about 1.0mm height.

(2) Inductance : **100** for **10.0** uH.

(3) Inductance tolerance : **N**: ± 30%; **M**: ± 20%.

Test equipments :

- Inductance measured at 0Adc on HP 4284A LCR meter or equivalent.
- DCR measured on Chroma 16502 micro-ohmmeter or equivalent.
- Electrical specifications at 25℃.

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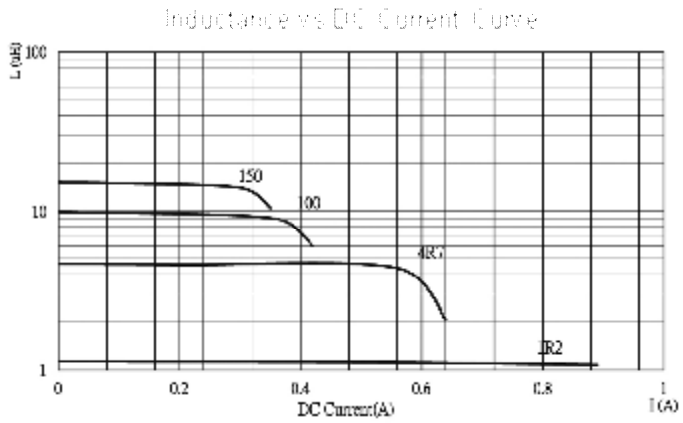
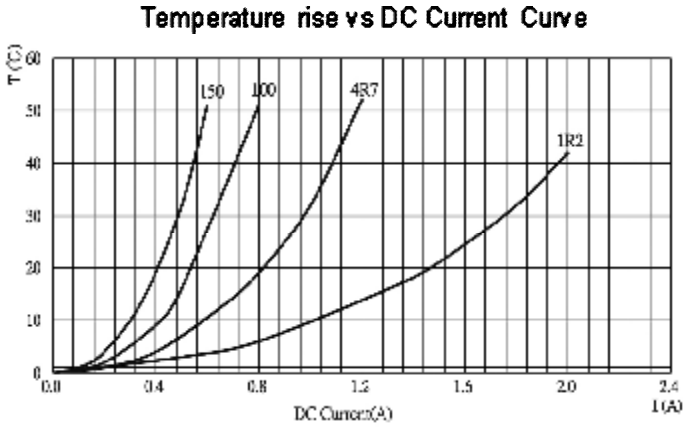
I BRI 2D10 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max. 20℃	I sat (A) Max. 100℃	I rms (A) Max.
BRI2D10-1R2N	1.2	30	100 KHz	91 (70)	0.93	0.70	1.25
BRI2D10-2R2N	2.2	30	100 KHz	150 (115)	0.63	0.50	0.98
BRI2D10-3R3N	3.3	30	100 KHz	221 (170)	0.53	0.40	0.83
BRI2D10-4R7N	4.7	30	100 KHz	300 (230)	0.45	0.33	0.64
BRI2D10-5R6N	5.6	30	100 KHz	338 (260)	0.40	0.31	0.59
BRI2D10-6R8N	6.8	30	100 KHz	397 (305)	0.36	0.28	0.53
BRI2D10-8R2N	8.2	30	100 KHz	507 (390)	0.32	0.26	0.46
BRI2D10-100M	10.0	20	100 KHz	560 (430)	0.30	0.23	0.42
BRI2D10-120M	12.0	20	100 KHz	650 (500)	0.27	0.20	0.40
BRI2D10-150M	15.0	20	100 KHz	923 (710)	0.24	0.18	0.35
BRI2D10-180M	18.0	20	100 KHz	1066 (820)	0.22	0.17	0.33
BRI2D10-220M	22.0	20	100 KHz	1235 (950)	0.20	0.15	0.30

Typical performance curves :





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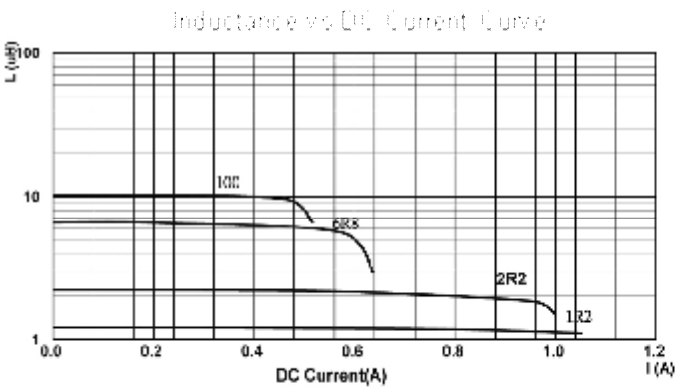
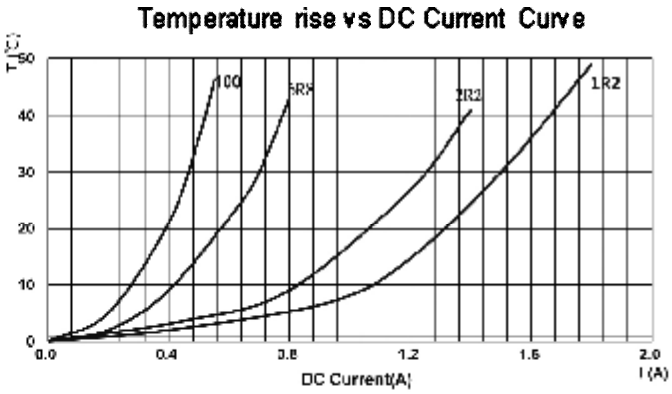
I BRI 2D12 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max. 20℃	I sat (A) Max. 100℃	I rms (A) Max.
BRI2D12-1R2N	1.2	30	100 KHz	117 (90)	0.85	0.70	1.05
BRI2D12-2R2N	2.2	30	100 KHz	182 (140)	0.70	0.60	0.90
BRI2D12-3R3N	3.3	30	100 KHz	260 (200)	0.60	0.50	0.82
BRI2D12-4R7N	4.7	30	100 KHz	312 (240)	0.50	0.40	0.72
BRI2D12-5R6N	5.6	30	100 KHz	442 (340)	0.46	0.35	0.67
BRI2D12-6R8N	6.8	30	100 KHz	520 (400)	0.43	0.30	0.62
BRI2D12-8R2N	8.2	30	100 KHz	560 (430)	0.38	0.28	0.58
BRI2D12-100M	10.0	20	100 KHz	780 (600)	0.33	0.25	0.55

Typical performance curves :





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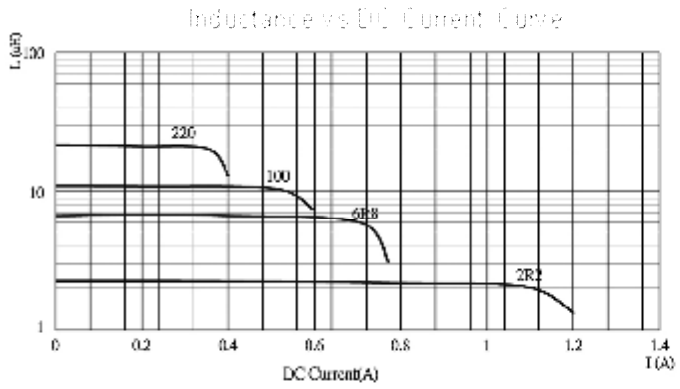
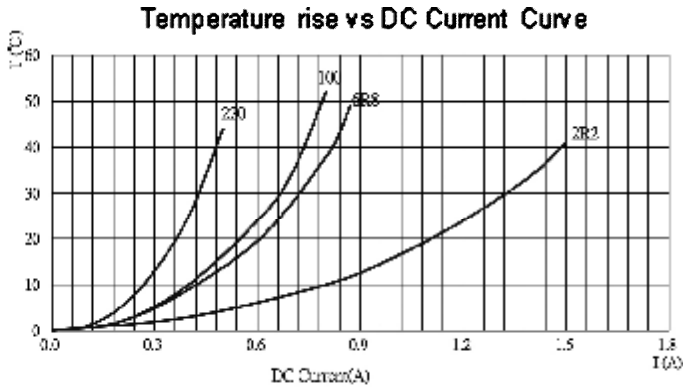
I BRI 2D15 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ)) Max. (Typ.)	I sat (A) Max. 20℃	I sat (A) Max. 100℃	I rms (A) Max.
BRI2D15-2R2N	2.2	30	100 KHz	150 (115)	1.00	0.80	1.00
BRI2D15-3R3N	3.3	30	100 KHz	234 (180)	0.90	0.70	0.90
BRI2D15-4R7N	4.7	30	100 KHz	338 (260)	0.80	0.60	0.85
BRI2D15-5R6N	5.6	30	100 KHz	364 (280)	0.70	0.55	0.80
BRI2D15-6R8N	6.8	30	100 KHz	416 (320)	0.60	0.52	0.77
BRI2D15-8R2N	8.2	30	100 KHz	572 (440)	0.55	0.48	0.72
BRI2D15-100M	10.0	20	100 KHz	624 (480)	0.50	0.45	0.70
BRI2D15-120M	12.0	20	100 KHz	702 (540)	0.45	0.40	0.65
BRI2D15-150M	15.0	20	100 KHz	949 (730)	0.40	0.35	0.50
BRI2D15-180M	18.0	20	100 KHz	1090 (840)	0.35	0.30	0.40
BRI2D15-220M	22.0	20	100 KHz	1250 (960)	0.30	0.25	0.30

Typical performance curves :





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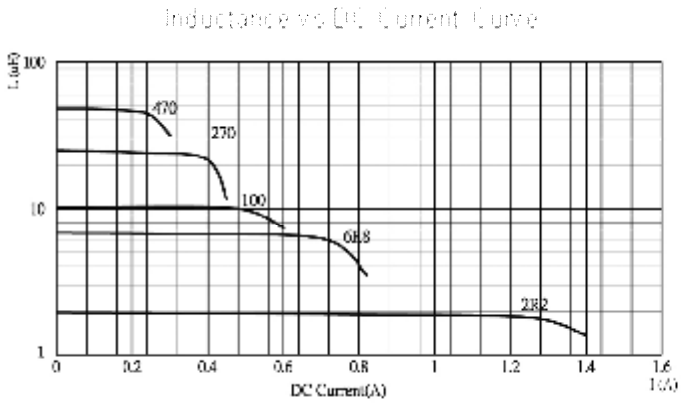
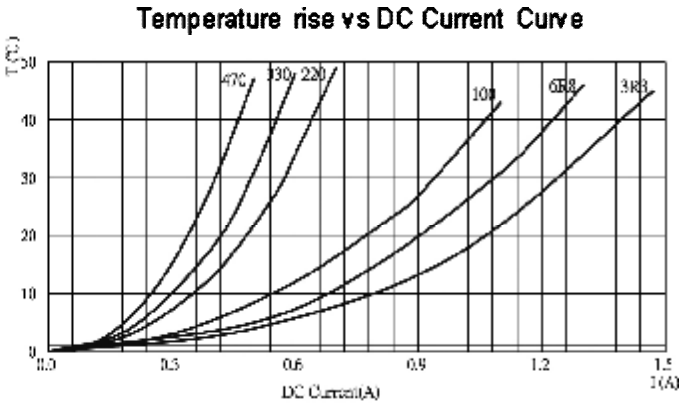
I BRI 2D18 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max. 20℃	I sat (A) Max. 100℃	I rms (A) Max.
BRI2D18-2R2N	2.2	30	100 KHz	117 (90)	1.10	0.90	1.10
BRI2D18-3R3N	3.3	30	100 KHz	143 (110)	1.00	0.80	1.00
BRI2D18-4R7N	4.7	30	100 KHz	221 (170)	0.80	0.70	0.90
BRI2D18-5R6N	5.6	30	100 KHz	247 (190)	0.75	0.60	0.85
BRI2D18-6R8N	6.8	30	100 KHz	312 (240)	0.70	0.55	0.82
BRI2D18-8R2N	8.2	30	100 KHz	351 (270)	0.60	0.50	0.78
BRI2D18-100M	10.0	20	100 KHz	468 (360)	0.55	0.48	0.75
BRI2D18-120M	12.0	20	100 KHz	533 (410)	0.50	0.45	0.65
BRI2D18-150M	15.0	20	100 KHz	598 (460)	0.45	0.40	0.55
BRI2D18-180M	18.0	20	100 KHz	715 (550)	0.40	0.33	0.50
BRI2D18-220M	22.0	20	100 KHz	975 (750)	0.38	0.30	0.45
BRI2D18-270M	27.0	20	100 KHz	1105 (850)	0.33	0.25	0.40
BRI2D18-330M	33.0	20	100 KHz	1222 (940)	0.30	0.23	0.33
BRI2D18-390M	39.0	20	100 KHz	1625 (1250)	0.25	0.20	0.28
BRI2D18-470M	47.0	20	100 KHz	1820 (1400)	0.23	0.18	0.25

Typical performance curves :





* Due to the limited space, the catalogue shows the typical specifications only. For more specific details (characteristics graph, reliability, and others), kindly invite you to access 3L official website www.3lcoil.com for better known.

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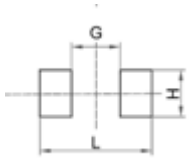
BRI SERIES

SHIELDED SMT POWER INDUCTOR

Applications :

- DSC, DVC , PDA products.
- Hand phone of new generation.
- Hard disk drives.

Shape and Dimensions (Dimensions are in mm) :



Item	A	B	C Max.	D	E
BRI3D12	3.8±0.2	1.1	1.2	2.4	0.7
BRI3D15	3.8±0.2	1.1	1.5	2.4	0.7
BRI3D18	3.8±0.2	1.1	1.8	2.4	0.7

Item	G	H	L
BRI3D12	2.0	1.5	4.8
BRI3D15	2.0	1.5	4.8
BRI3D18	2.0	1.5	4.8

Features :

- Automatic process.
- New designed terminal for low cost.
- Low profile and high current.
- Magnetically shielded construction.
- Ideal for digital equipment and hand phone of new generation.
- RoHS compliant.

Characteristics :

- Saturation Current (Isat) : The current when the inductance becomes 30% lower than its initial value.(Ta=20℃)
- Temperature Rise(Irms) : The current when temperature of coil increase up to max.△T=40℃.(Ta=20℃).
- Operating Temperature : -40℃ to 105℃.

Product identification :

BRI3D12 - **220** **M**

(1) (2) (3)

(1) Type : Surface mountable type.

Style : Copper **B**ase with DR core and **RI** core.

3D is 3.8mm square and **12** is about 1.2mm height.

(2) Inductance : **220** for **22.0** uH.

(3) Inductance tolerance : **N**: ± 30%; **M**: ± 20%.

Test equipments :

- Inductance measured at 0Adc on HP 4284A LCR meter or equivalent.
- DCR measured on Chroma 16502 micro-ohmmeter or equivalent.
- Electrical specifications at 25℃.

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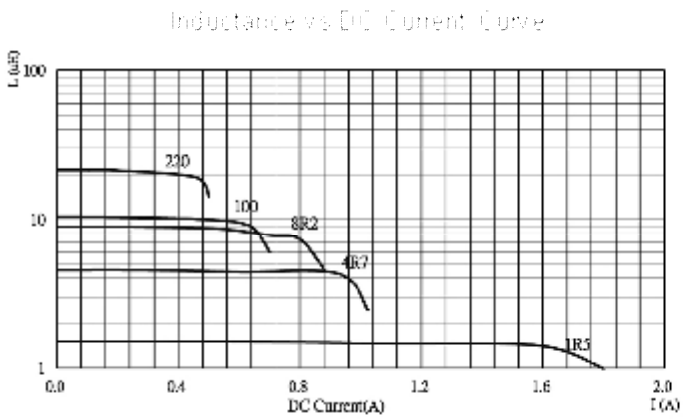
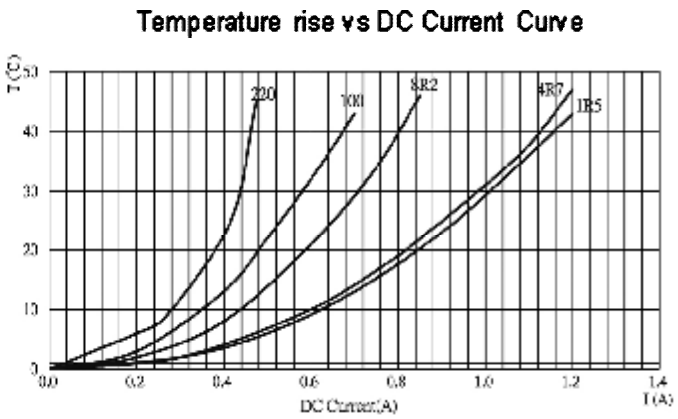
I BRI 3D12 series

Part No	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max.		I rms (A) Max.
					20℃	100℃	
BRI3D12-1R2N	1.2	30	100 KHz	81 (65)	1.60	1.40	1.30
BRI3D12-1R5N	1.5	30	100 KHz	100 (80)	1.40	1.20	1.10
BRI3D12-2R2N	2.2	30	100 KHz	125 (100)	1.20	0.90	0.92
BRI3D12-2R7N	2.7	30	100 KHz	188 (150)	1.10	0.85	0.87
BRI3D12-3R9N	3.9	30	100 KHz	256 (205)	1.00	0.80	0.83
BRI3D12-4R7N	4.7	30	100 KHz	287 (230)	0.90	0.70	0.80
BRI3D12-5R6N	5.6	30	100 KHz	380 (305)	0.80	0.60	0.75
BRI3D12-6R8N	6.8	30	100 KHz	450 (360)	0.70	0.55	0.65
BRI3D12-8R2N	8.2	30	100 KHz	500 (400)	0.60	0.50	0.55
BRI3D12-100M	10.0	20	100 KHz	650 (520)	0.50	0.35	0.45
BRI3D12-120M	12.0	20	100 KHz	687 (550)	0.45	0.30	0.40
BRI3D12-150M	15.0	20	100 KHz	787 (630)	0.40	0.27	0.37
BRI3D12-180M	18.0	20	100 KHz	875 (700)	0.35	0.25	0.35
BRI3D12-220M	22.0	20	100 KHz	962 (770)	0.30	0.20	0.30

Typical performance curves :





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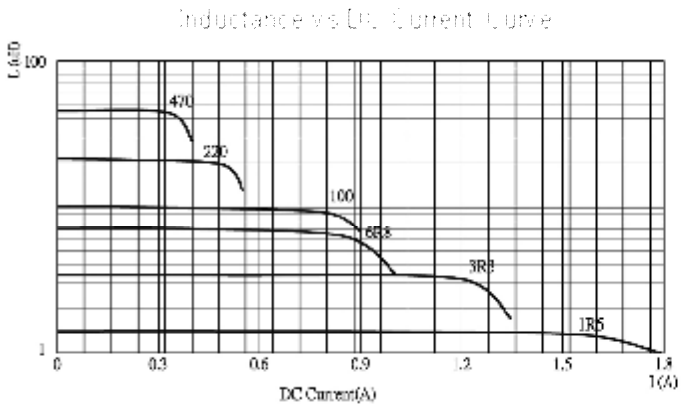
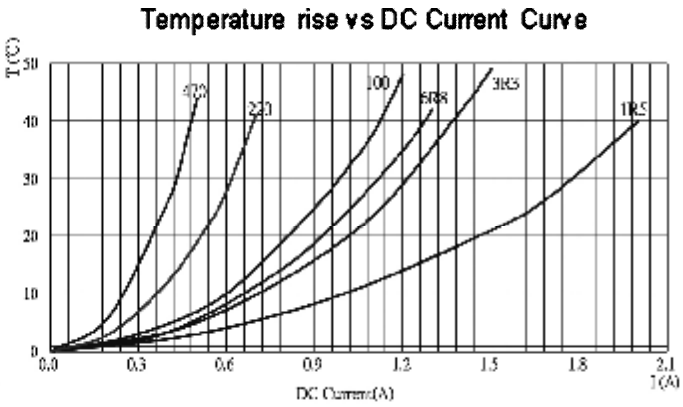
● BRI 3D15 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max.		I rms (A) Max.
					20℃	100℃	
BRI3D15-1R0N	1.0	30	100 KHz	78 (62)	2.00	1.80	1.80
BRI3D15-1R5N	1.5	30	100 KHz	94 (75)	1.70	1.50	1.70
BRI3D15-2R2N	2.2	30	100 KHz	106 (85)	1.40	1.20	1.60
BRI3D15-2R7N	2.7	30	100 KHz	118 (95)	1.30	1.10	1.50
BRI3D15-3R3N	3.3	30	100 KHz	131 (105)	1.10	1.00	1.40
BRI3D15-3R9N	3.9	30	100 KHz	143 (115)	1.00	0.90	1.30
BRI3D15-4R7N	4.7	30	100 KHz	162 (130)	0.95	0.85	1.20
BRI3D15-5R6N	5.6	30	100 KHz	175 (140)	0.90	0.80	1.10
BRI3D15-6R8N	6.8	30	100 KHz	212 (170)	0.85	0.75	1.00
BRI3D15-8R2N	8.2	30	100 KHz	237 (190)	0.80	0.70	0.95
BRI3D15-100M	10.0	20	100 KHz	262 (210)	0.70	0.5	0.90
BRI3D15-120M	12.0	20	100 KHz	350 (280)	0.60	0.45	0.80
BRI3D15-150M	15.0	20	100 KHz	456 (365)	0.55	0.42	0.75
BRI3D15-180M	18.0	20	100 KHz	506 (405)	0.50	0.40	0.70
BRI3D15-220M	22.0	20	100 KHz	575 (460)	0.45	0.37	0.55
BRI3D15-270M	27.0	20	100 KHz	675 (540)	0.40	0.33	0.53
BRI3D15-330M	33.0	20	100 KHz	937 (750)	0.35	0.30	0.50
BRI3D15-390M	39.0	20	100 KHz	1037 (830)	0.32	0.28	0.45
BRI3D15-470M	47.0	20	100 KHz	1262 (1010)	0.28	0.22	0.43

Typical performance curves :





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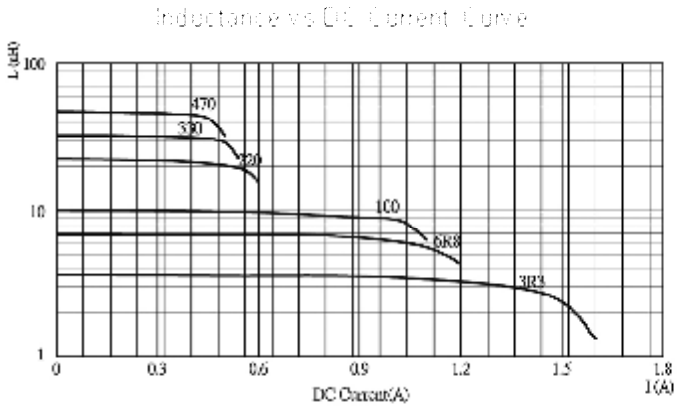
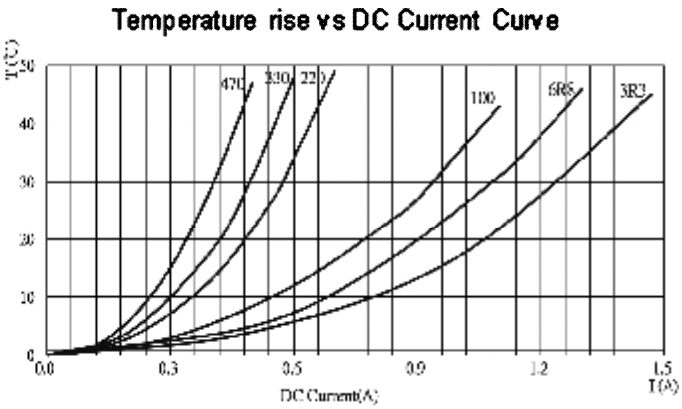
I BRI 3D18 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max.		I rms (A) Max.
					20℃	100℃	
BRI3D18-1R2N	1.2	30	100 KHz	88 (70)	2.00	1.80	1.90
BRI3D18-1R8N	1.8	30	100 KHz	100 (80)	1.80	1.60	1.80
BRI3D18-2R2N	2.2	30	100 KHz	113 (90)	1.60	1.40	1.70
BRI3D18-2R7N	2.7	30	100 KHz	125 (100)	1.40	1.20	1.55
BRI3D18-3R3N	3.3	30	100 KHz	138 (110)	1.20	1.10	1.45
BRI3D18-3R9N	3.9	30	100 KHz	150 (120)	1.10	1.00	1.35
BRI3D18-4R7N	4.7	30	100 KHz	162 (130)	1.00	0.90	1.25
BRI3D18-5R6N	5.6	30	100 KHz	181 (145)	0.95	0.85	1.15
BRI3D18-6R8N	6.8	30	100 KHz	200 (160)	0.90	0.80	1.05
BRI3D18-8R2N	8.2	30	100 KHz	225 (180)	0.80	0.75	0.95
BRI3D18-100M	10.0	20	100 KHz	250 (200)	0.75	0.70	0.85
BRI3D18-120M	12.0	20	100 KHz	337 (270)	0.65	0.60	0.70
BRI3D18-150M	15.0	20	100 KHz	393 (315)	0.60	0.55	0.65
BRI3D18-180M	18.0	20	100 KHz	437 (350)	0.55	0.50	0.60
BRI3D18-220M	22.0	20	100 KHz	563 (450)	0.50	0.45	0.55
BRI3D18-270M	27.0	20	100 KHz	637 (510)	0.45	0.40	0.45
BRI3D18-330M	33.0	20	100 KHz	712 (570)	0.40	0.35	0.40
BRI3D18-390M	39.0	20	100 KHz	956 (765)	0.38	0.32	0.35
BRI3D18-470M	47.0	20	100 KHz	1100 (880)	0.32	0.28	0.30

Typical performance curves :





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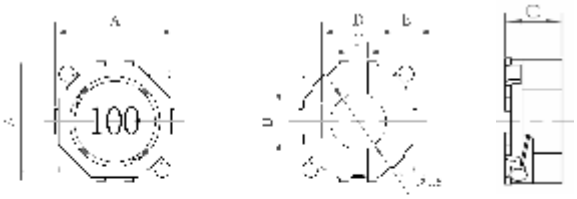
BRI SERIES

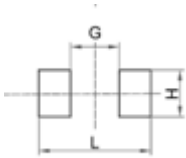
SHIELDED SMT POWER INDUCTOR

Applications :

- DSC, DVC , PDA products.
- Hand phone of new generation.
- Hard disk drives.

Shape and Dimensions (Dimensions are in mm) :





Item	A	B	C Max.	D	E
BRI4D12	4.6±0.3	1.3	1.2	3.2	0.7
BRI4D15	4.6±0.3	1.3	1.5	3.2	0.7

Item	G	H	L
BRI4D12	2.8	1.6	5.6
BRI4D15	2.8	1.6	5.6

Features :

- Automatic process.
- New designed terminal for low cost.
- Low profile and high current.
- Magnetically shielded construction.
- Ideal for digital equipment and hand phone of new generation.
- RoHS compliant.

Characteristics :

- Saturation Current (Isat): The current when the inductance becomes 30% lower than its initial value.(Ta=20℃).
- Temperature Rise Current(Irms): The current when temperature of coil increase up to max.△T=40℃ (Ta=20℃).
- Operating Temperature : -40℃ to 105℃.

Product identification :

BRI4D12 - 470 M

(1) (2) (3)

(1) Type : Surface mountable type.

Style : Copper **B**ase with DR core and **RI** core.

4D is 4.6mm square and **12** is about 1.2mm height.

(2) Inductance : **470** for **47.0** uH.

(4) Inductance tolerance : **N**: ± 30%; **M**: ± 20%.

Test equipments :

- Inductance measured at 0Adc on HP 4284A LCR Meter or equivalent.
- DCR measured on Chroma 16502 micro-ohmmeter or equivalent.
- Electrical specifications at 25℃.

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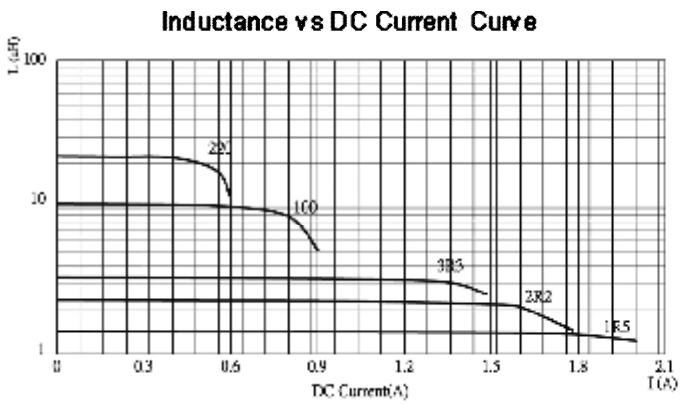
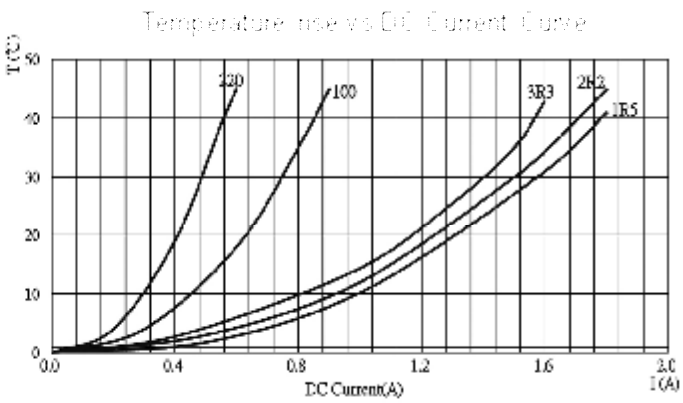
I BRI 4D12 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max. 20℃	I sat (A) Max. 100℃	I rms (A) Max.
BRI4D12-1R0N	1.0	30	100 KHz	75 (60)	2.10	1.90	1.70
BRI4D12-1R5N	1.5	30	100 KHz	89 (71)	1.80	1.60	1.60
BRI4D12-2R2N	2.2	30	100 KHz	106 (85)	1.40	1.20	1.50
BRI4D12-2R7N	2.7	30	100 KHz	125 (100)	1.30	1.10	1.40
BRI4D12-3R3N	3.3	30	100 KHz	150 (120)	1.20	1.00	1.30
BRI4D12-4R7N	4.7	30	100 KHz	196 (157)	1.10	0.95	1.20
BRI4D12-5R6N	5.6	30	100 KHz	256 (205)	1.00	0.80	1.05
BRI4D12-6R8N	6.8	30	100 KHz	312 (250)	0.90	0.75	1.00
BRI4D12-8R2N	8.2	30	100 KHz	362 (290)	0.80	0.65	0.90
BRI4D12-100M	10.0	20	100 KHz	450 (360)	0.70	0.60	0.80
BRI4D12-120M	12.0	20	100 KHz	500 (400)	0.65	0.55	0.75
BRI4D12-150M	15.0	20	100 KHz	700 (560)	0.60	0.50	0.70
BRI4D12-180M	18.0	20	100 KHz	775 (620)	0.50	0.40	0.60
BRI4D12-220M	22.0	20	100 KHz	1025 (820)	0.45	0.38	0.55
BRI4D12-270M	27.0	20	100 KHz	1162 (930)	0.40	0.35	0.50
BRI4D12-330M	33.0	20	100 KHz	1300 (1040)	0.38	0.32	0.45
BRI4D12-390M	39.0	20	100 KHz	1500 (1200)	0.35	0.30	0.43
BRI4D12-470M	47.0	20	100 KHz	1625 (1300)	0.32	0.28	0.40

Typical performance curve





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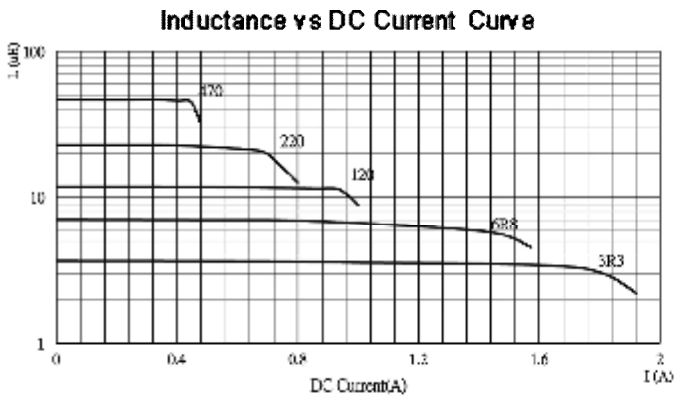
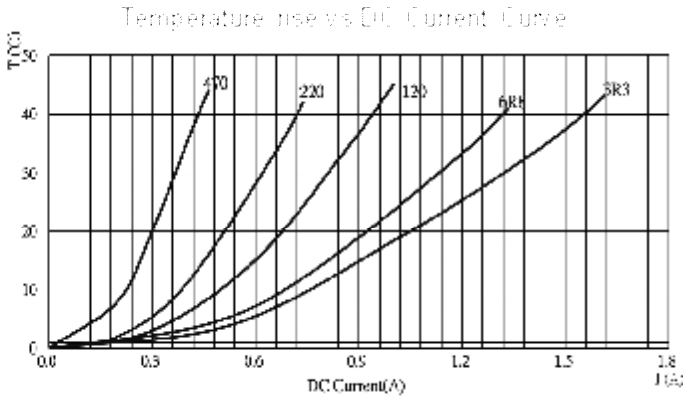
I BRI 4D15 series

Part No.	Inductance L (uH)	Tolerance (±%)	Test Freq. (0.1V)	DCR (mΩ) Max. (Typ.)	I sat (A) Max. 20℃	I sat (A) Max. 100℃	I rms (A) Max.
BRI4D15-1R0N	1.0	30	100 KHz	81 (65)	3.00	2.60	1.75
BRI4D15-1R2N	1.2	30	100 KHz	100 (80)	2.50	2.20	1.70
BRI4D15-1R8N	1.8	30	100 KHz	121 (97)	2.20	1.80	1.65
BRI4D15-2R7N	2.7	30	100 KHz	137 (110)	2.00	1.70	1.60
BRI4D15-3R3N	3.3	30	100 KHz	150 (120)	1.80	1.60	1.55
BRI4D15-3R9N	3.9	30	100 KHz	168 (135)	1.60	1.40	1.45
BRI4D15-4R7N	4.7	30	100 KHz	187 (150)	1.50	1.20	1.35
BRI4D15-5R6N	5.6	30	100 KHz	212 (170)	1.40	1.10	1.25
BRI4D15-6R8N	6.8	30	100 KHz	230 (185)	1.30	1.05	1.15
BRI4D15-8R2N	8.2	30	100 KHz	250 (200)	1.20	1.00	1.05
BRI4D15-100M	10.0	20	100 KHz	312 (250)	1.00	0.85	0.95
BRI4D15-120M	12.0	20	100 KHz	356 (285)	0.85	0.80	0.85
BRI4D15-150M	15.0	20	100 KHz	475 (380)	0.80	0.70	0.80
BRI4D15-180M	18.0	20	100 KHz	618 (495)	0.75	0.65	0.70
BRI4D15-220M	22.0	20	100 KHz	692 (554)	0.65	0.58	0.65
BRI4D15-270M	27.0	20	100 KHz	980 (785)	0.60	0.50	0.55
BRI4D15-330M	33.0	20	100 KHz	1068 (855)	0.55	0.45	0.50
BRI4D15-390M	39.0	20	100 KHz	1200 (960)	0.50	0.40	0.45
BRI4D15-470M	47.0	20	100 KHz	1710 (1370)	0.45	0.38	0.42

Typical performance curves :





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