

◆ MAJOR USES

- Output choke coils for Switching Mode Power Supply
- Choke coils for DC-DC converter
- Normal mode choke coils for noise control

◆ FEATURES

- Miniaturization in comparison with TM series coils
- High inductance in low load current
- Low leakage flux due to gap-less structure



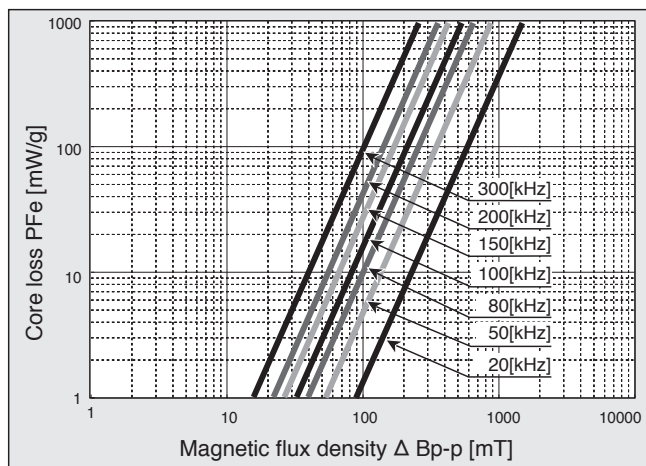
◆ CORE STANDARD SPECIFICATIONS

| Core Part No. (Old Core Part No.) | Abbreviation | Cross Sectional Area cm ² | Magnetic Path Length cm | Outside Dimensions | | | Inductance Coefficient AL Value | | |
|--------------------------------------|--------------|---|----------------------------|----------------------|-------------|--------------|---------------------------------|-----------------------|--------------------------------------|
| | | | | Outer Diameter mm | Width mm | Height mm | Idc=0[A] μH | Rated Current** μH | Rated Current Ampere Turn [AT] |
| LPB150905N (B150905N) | X2 | 0.140 | 3.85 | 17.2 | 7.3 | 6.4 | 0.079 | 0.047 | 100 |
| LPB190910N (B190910N) | XU | 0.447 | 4.49 | 21.6 | 7.3 | 11.9 | 0.248 | 0.100 | 200 |
| LPB221310N (B221310N) | X6 | 0.396 | 5.50 | 24.7 | 10.5 | 12.0 | 0.153 | 0.065 | 240 |
| LPB251510N (B251510N) | X7 | 0.430 | 6.28 | 28.3 | 12.7 | 12.3 | 0.153 | 0.068 | 270 |
| LPB251515N (B251515N) | X8 | 0.645 | 6.28 | 28.3 | 12.7 | 17.5 | 0.226 | 0.091 | 300 |
| LPB322015N (B322015N) | XR | 0.774 | 8.17 | 35.2 | 17.5 | 17.3 | 0.229 | 0.091 | 350 |
| LPB372315N (B372315N) | XJ | 0.924 | 9.42 | 40.5 | 19.5 | 18.0 | 0.209 | 0.096 | 375 |
| LPB462715N (B462715N) | XQ | 1.254 | 11.50 | 49.4 | 22.7 | 18.0 | 0.232 | 0.084 | 600 |
| LPB462720N (B462720N) | XC | 1.634 | 11.50 | 49.4 | 22.7 | 23.0 | 0.310 | 0.112 | 600 |

*200[kHz], ±25%

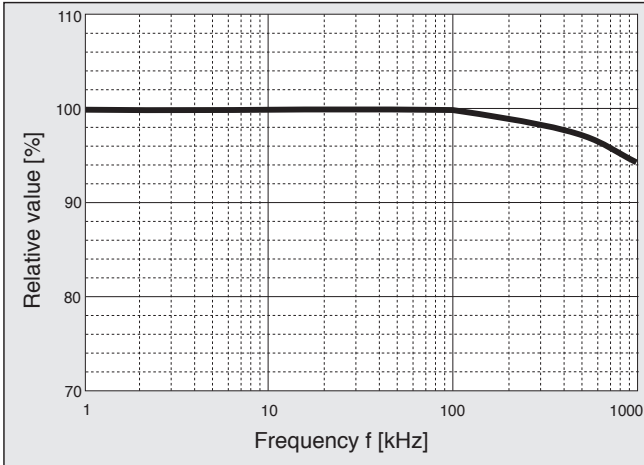
◆ CORE LOSS CHARACTERISTICS

- BM choke



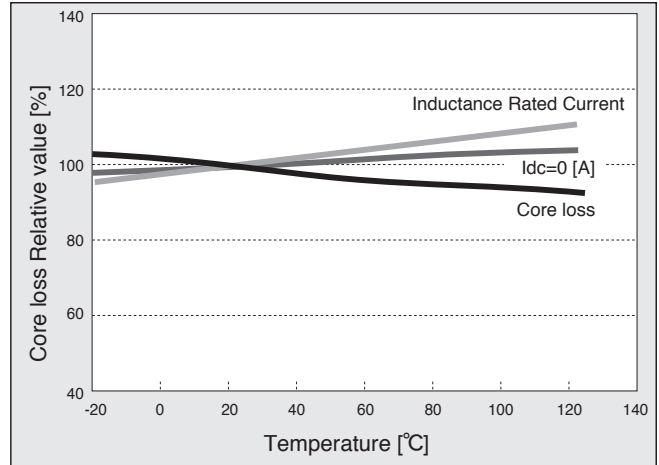
◆ FREQUENCY - INDUCTANCE CHARACTERISTICS

● BM choke

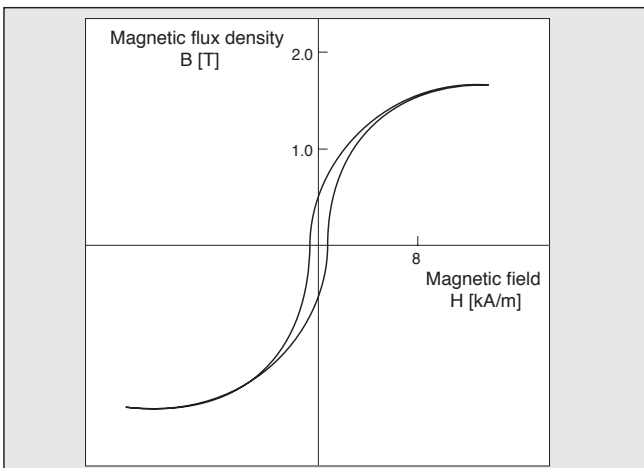


◆ TEMPERATURE DEPENDENCE - INDUCTANCE AND CORE LOSS

● Frequency : 200[kHz]

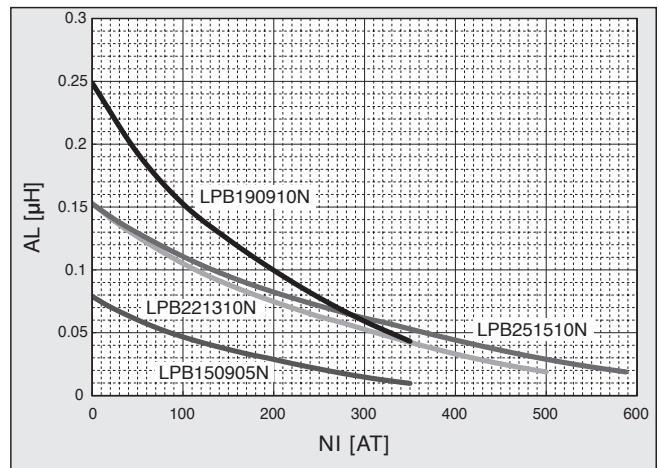


◆ B-H CURVE



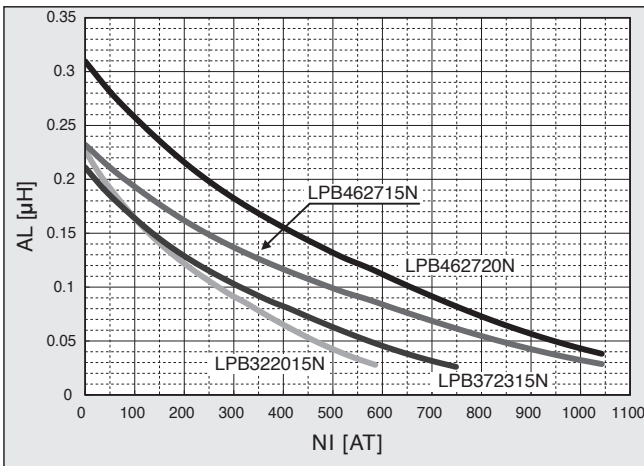
◆ D.C. BIAS CHARACTERISTICS AL-AT(1)

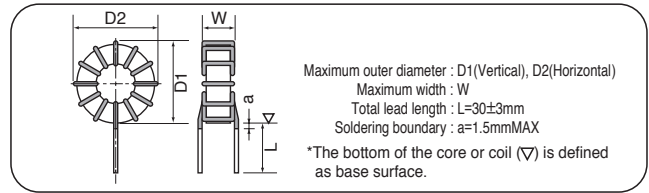
● Frequency : 200[kHz]



◆ D.C. BIAS CHARACTERISTICS AL-AT(2)

● Frequency : 200[kHz]





◆COIL STANDARD SPECIFICATIONS

| Coil Part No. (Old Coil Part No.) | Rated Current A | Inductance ^{*1} (200kHz) ^{*2} | | D.C.R. mΩ (max) | Winding mmφ×lines | Outside Dimensions | | |
|--------------------------------------|--------------------|---|-------------------|-----------------------|----------------------|--------------------|----------|---------|
| | | 0[A] μH | Rating μH | | | D1 mm | D2 mm | W mm |
| ◎ LBBM003421X6-V0E (BM03421X6PBF) | 3 | 980 ^{*2} | 420 ^{*2} | 130 | 0.8×1p | 29.0 | 29.0 | 17.5 |
| ◎ LBBM005161X6-V0E (BM05161X6PBF) | 5 | 360 | 160 | 55 | 1.0×1p | 29.0 | 29.0 | 18.0 |
| ◎ LBBM008600X6-V0E (BM08600X6PBF) | 8 | 140 | 60 | 20 | 0.9×2p | 29.0 | 29.0 | 18.0 |
| ◎ LBBM010300X6-V0E (BM10300X6PBF) | 10 | 62 | 30 | 11 | 1.0×2p | 29.0 | 29.0 | 18.0 |
| ◎ LBBM015150X6-V0E (BM15150X6PBF) | 15 | 35 | 15 | 6 | 1.0×3p | 29.5 | 29.5 | 18.5 |
| ◎ LBBM020100X6-V0E (BM20100X6PBF) | 20 | 23 | 10 | 4 | 1.0×4p | 29.5 | 29.5 | 18.5 |
| ◎ LBBM025060X6-V0E (BM25060X6PBF) | 25 | 13 | 6 | 2 | 1.2×4p | 30.0 | 30.0 | 19.0 |
| ◎ LBBM0303R6X6-V0E (BM30040X6PBF) | 30 | 7.5 | 3.6 | 2 | 1.3×4p | 31.0 | 31.0 | 19.5 |
| ◎ LBBM003551X7-V0E (BM03551X7PBF) | 3 | 1300 ^{*2} | 550 ^{*2} | 150 | 0.8×1p | 32.5 | 32.5 | 18.0 |
| ◎ LBBM005201X7-V0E (BM05201X7PBF) | 5 | 460 | 200 | 60 | 1.0×1p | 32.0 | 32.5 | 18.0 |
| ◎ LBBM008800X7-V0E (BM08800X7PBF) | 8 | 190 | 80 | 26 | 0.9×2p | 32.5 | 33.0 | 18.5 |
| ◎ LBBM010500X7-V0E (BM10500X7PBF) | 10 | 120 | 50 | 16 | 1.0×2p | 32.5 | 33.0 | 18.5 |
| ◎ LBBM015270X7-V0E (BM15270X7PBF) | 15 | 65 | 27 | 8 | 1.0×3p | 33.0 | 33.5 | 19.0 |
| ◎ LBBM020150X7-V0E (BM20150X7PBF) | 20 | 36 | 15 | 5 | 1.2×3p | 33.5 | 33.5 | 20.0 |
| ◎ LBBM025090X7-V0E (BM25090X7PBF) | 25 | 24 | 9 | 3 | 1.2×4p | 33.5 | 33.5 | 21.0 |
| ◎ LBBM030070X7-V0E (BM30070X7PBF) | 30 | 16 | 7 | 3 | 1.3×4p | 34.5 | 34.5 | 21.0 |
| ◎ LBBM035050X7-V0E (BM35050X7PBF) | 35 | 13 | 5.0 | 3 | 1.4×4p | 34.0 | 34.0 | 21.0 |
| ◎ LBBM0403R4X7-V0E (BM40030X7PBF) | 40 | 8.0 | 3.4 | 2 | 1.4×5p | 35.0 | 35.0 | 21.0 |

*1 Rated inductance tolerance : ±25%, the inductance at current 0[A] indicates the reference value.

*2 LBBM003801X8-V0E, LBBM003122XR-V0E, LBBM003421X6-V0E, LBBM003551X7-V0E : 50kHz.

There is a horizontal putting type in all items in the above list."V" changes into "H" in last the third digit of the name of items.

There is a type with the length putting seat in ● item in the above list."V" changes into "D" in last the third digit of the name of items.

There are the type with the length putting seat and the horizontal putting seat in ◎ item.

The type with the length putting seat is "V" changes into "B" in last the third digit of the name of items.

*Order the auxiliary pins separately if they are required for the pedestal.

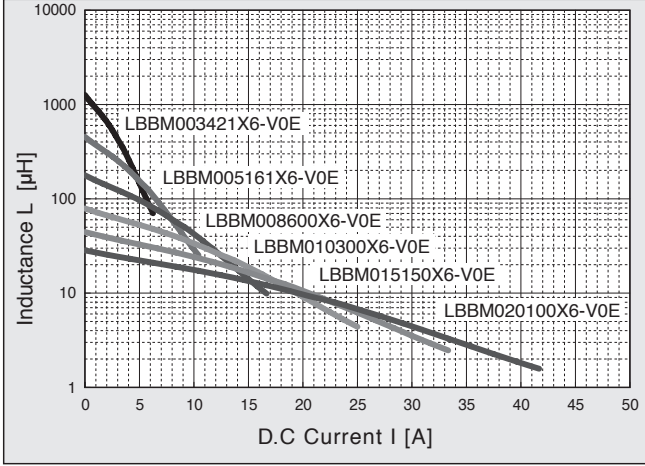
Please select them according to the situation.

◆ COIL STANDARD SPECIFICATIONS

| Coil Part No. (Old Coil Part No.) | Rated Current A | Inductance ¹ (200kHz) ² | | D.C.R. mΩ (max) | Winding mmφ×lines | Outside Dimensions | | |
|--------------------------------------|--------------------|---|-------------------|-----------------------|----------------------|--------------------|----------|---------|
| | | 0[A] μH | Rating μH | | | D1 mm | D2 mm | W mm |
| ○ LBBM003801X8-V0E (BM03801X8PBF) | 3 | 1800 ² | 800 ² | 185 | 0.8×1P | 33.0 | 33.0 | 24.5 |
| ○ LBBM005351X8-V0E (BM05351X8PBF) | 5 | 820 | 350 | 85 | 1.0×1p | 34.0 | 34.0 | 24.5 |
| ○ LBBM008121X8-V0E (BM08121X8PBF) | 8 | 280 | 120 | 30 | 1.3×1p | 34.0 | 34.0 | 24.5 |
| ○ LBBM010750X8-V0E (BM10750X8PBF) | 10 | 170 | 75 | 17 | 1.1×2p | 34.0 | 34.0 | 25.5 |
| ○ LBBM015350X8-V0E (BM15350X8PBF) | 15 | 82 | 35 | 9 | 1.3×2p | 34.5 | 34.5 | 25.0 |
| ○ LBBM020210X8-V0E (BM20210X8PBF) | 20 | 51 | 21 | 6 | 1.2×3p | 34.0 | 34.0 | 26.0 |
| ○ LBBM025130X8-V0E (BM25130X8PBF) | 25 | 33 | 13 | 4 | 1.2×4p | 35.0 | 35.0 | 26.0 |
| ○ LBBM030090X8-V0E (BM30090X8PBF) | 30 | 23 | 9 | 3 | 1.3×4p | 35.5 | 35.5 | 27.0 |
| ○ LBBM0357R5X8-V0E (BM35070X8PBF) | 35 | 18 | 7.5 | 3 | 1.4×4p | 35.0 | 35.0 | 27.5 |
| ○ LBBM040050X8-V0E (BM40050X8PBF) | 40 | 11 | 5.0 | 2 | 1.4×5p | 36.5 | 36.5 | 26.5 |
| ○ LBBM003122XR-V0E (BM03122XRPBF) | 3 | 2800 ² | 1200 ² | 155 | 1.0×1p | 41.5 | 41.5 | 26.5 |
| ○ LBBM005481XR-V0E (BM05481XRPBF) | 5 | 1000 | 480 | 100 | 1.1×1p | 41.0 | 41.0 | 25.5 |
| ○ LBBM008191XR-V0E (BM08191XRPBF) | 8 | 430 | 190 | 40 | 1.3×1p | 41.5 | 41.5 | 25.5 |
| ○ LBBM010121XR-V0E (BM10121XRPBF) | 10 | 260 | 120 | 22 | 1.1×2p | 42.0 | 42.0 | 26.0 |
| ○ LBBM015570XR-V0E (BM15570XRPBF) | 15 | 130 | 57 | 13 | 1.3×2p | 41.5 | 41.5 | 26.0 |
| ○ LBBM020310XR-V0E (BM20310XRPBF) | 20 | 68 | 31 | 7 | 1.2×3p | 42.0 | 42.0 | 26.0 |
| ● LBBM025200XR-V0E (BM25200XRPBF) | 25 | 48 | 20 | 5 | 1.2×4p | 41.5 | 41.5 | 26.0 |
| ● LBBM030140XR-V0E (BM30140XRPBF) | 30 | 30 | 14 | 4 | 1.3×4p | 42.0 | 42.0 | 27.0 |
| ● LBBM0359R5XR-V0E (BM35100XRPBF) | 35 | 21 | 9.5 | 3 | 1.4×4p | 42.0 | 42.0 | 26.0 |
| ● LBBM0406R5XR-V0E (BM40070XRPBF) | 40 | 14 | 6.5 | 2 | 1.4×5p | 42.5 | 42.5 | 26.5 |
| ● LBBM0454R9XR-V0E (BM45050XRPBF) | 45 | 10 | 4.9 | 2 | 1.3×6p | 42.5 | 42.5 | 26.5 |

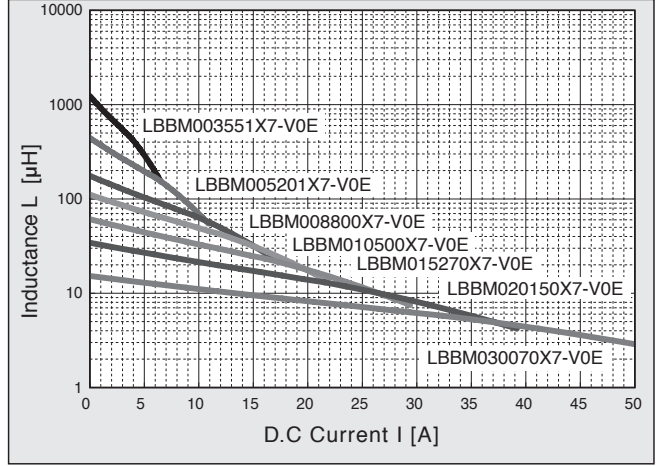
◆D.C. BIAS CHARACTERISTICS (1)

●Core : LPB221310N, Frequency : 200[kHz]



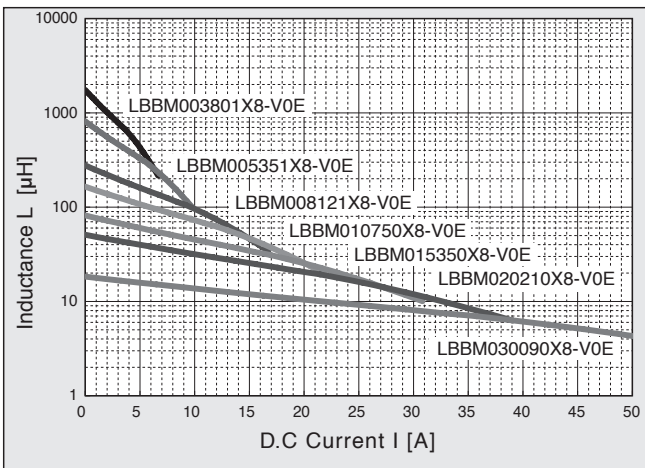
◆D.C. BIAS CHARACTERISTICS (2)

●Core : LPB251510N, Frequency : 200[kHz]



◆D.C. BIAS CHARACTERISTICS (3)

●Core : LPB251515N, Frequency : 200[kHz]



◆D.C. BIAS CHARACTERISTICS (4)

●Core : LPB322015N, Frequency : 200[kHz]

