



Mini Molding Power Inductors - HBE Series

FEATURES

- * Metal material for large current and low loss
- * High performance (Isat) realized by metal dust core
- * Low loss realized with low Rdc.
- * Closed magnetic circuit design reduces leakage flux
- * Vinyl thermal spray, better surface compactness
- * Environmental requirements must comply with the QESP-44 document
- * 100% lead (Pb) free meet RoHS2.0 and Halogen , Reach and other legal and regulatory requirements standard
- * Meet AEC-Q200 standard



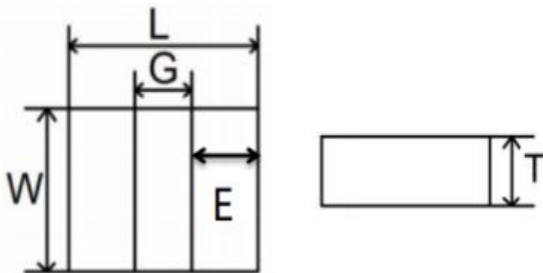
ORDERING CODE(标志示例)

HBE □□□□ **A** - □□□ □

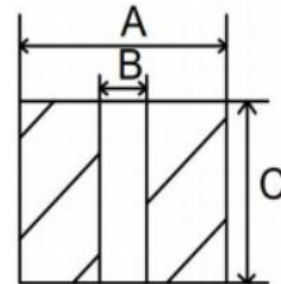
(1) (2) (3) (4) (5)

- (1) HBE 向华料号 Part Number
 (2) 尺寸 Dimensions
 (3) 材料 合金材料
 (4) 电感量 Inductance
 (5) 电感量公差 Inductance Tolerance

Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	L	G	W	E	T	A	B	C
HBE141208A	1.4±0.2	0.5±0.2	1.2±0.2	0.45±0.2	0.80max	1.50typ	0.40typ	1.30typ
HBE160808A	1.6±0.2	0.6±0.2	0.8±0.2	0.50±0.2	0.80max	1.70typ	0.50typ	0.90typ
HBE201208A	2.0±0.2	0.6±0.2	1.2±0.2	0.70±0.2	0.80max	2.10typ	0.50typ	1.30typ
HBE201610A	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	1.00max	2.10typ	0.50typ	1.70typ
HBE201612A	2.0±0.2	0.6±0.2	1.6±0.2	0.70±0.2	1.20max	2.10typ	0.50typ	1.70typ
HBE252010A	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	1.00max	2.60typ	0.70typ	2.10typ
HBE252012A	2.5±0.2	0.8±0.2	2.0±0.2	0.85±0.2	1.20max	2.60typ	0.70typ	2.10typ
HBE303020A	3.0±0.1	0.9±0.2	3.0±0.1	1.00±0.2	2.00max	3.00typ	0.80typ	3.00typ
HBE322510A	3.2±0.2	1.0±0.2	2.5±0.2	1.05±0.2	1.00max	3.20typ	0.90typ	2.50typ
HBE322512A	3.2±0.2	1.0±0.2	2.5±0.2	1.05±0.2	1.20max	3.20typ	0.90typ	2.50typ
HBE322520A	3.2±0.2	1.0±0.2	2.5±0.2	1.05±0.2	2.00max	3.20typ	0.90typ	2.50typ
HBE404012A	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	1.20max	4.10typ	1.10typ	4.10typ
HBE404020A	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	2.00max	4.10typ	1.10typ	4.10typ
HBE404030A	4.1±0.2	1.3±0.2	4.1±0.2	1.40±0.2	3.00max	4.10typ	1.10typ	4.10typ



Mini Molding Power Inductors - HBE141208A Series

HBE141208A series Electrical Characteristics

Part No.	Inductance (uH)	Tolerance (±%)	Test Freq.	RDC(mΩ) Typ.(Max)	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)
HBE141208A-R24M	0.24	20	1MHz,1.0V	22(27)	6.0(5.7)	4.1(3.7)
HBE141208A-R33M	0.33	20	1MHz,1.0V	23(28)	5.3(5.0)	4.0(3.5)
HBE141208A-R47M	0.47	20	1MHz,1.0V	29(35)	4.6(4.2)	3.8(3.3)
HBE141208A-1R0M	1.0	20	1MHz,1.0V	65(77)	3.0(2.5)	3.0(2.5)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}:DC current(A) that will cause an approximate ΔT of 40°C
- I_{sat}: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range—55°C to~+155°C



Mini Molding Power Inductors - HBE160808A Series

HBE160808A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m Ω)	Isat(A)	Irms(A)
	(μ H)	(\pm %)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE160808A-R22M	0.22	20	1MHz,1.0V	33(40)	5.5(5.0)	3.4(3.0)
HBE160808A-R24M	0.24	20	1MHz,1.0V	34(41)	5.3(4.8)	3.3(2.9)
HBE160808A-R47M	0.47	20	1MHz,1.0V	80(100)	4.1(3.7)	2.6(2.3)
HBE160808A-R56M	0.56	20	1MHz,1.0V	85(110)	4.0(3.5)	2.2(1.9)
HBE160808A-R68M	0.68	20	1MHz,1.0V	110(130)	3.3(3.0)	2.1(1.9)
HBE160808A-1R0M	1.0	20	1MHz,1.0V	180(200)	3.0(2.6)	2.1(1.8)
HBE160808A-1R5M	1.5	20	1MHz,1.0V	240(285)	2.4(2.0)	1.7(1.4)
HBE160808A-2R2M	2.2	20	1MHz,1.0V	220(260)	1.5(1.3)	1.4(1.2)
HBE160808A-3R3M	3.3	20	1MHz,1.0V	500(600)	1.4(1.2)	1.0(0.9)
HBE160808A-4R7M	4.7	20	1MHz,1.0V	585(700)	1.2(1.0)	1.0(0.8)
HBE160808A-100M	10	20	1MHz,1.0V	1450(1600)	0.8(0.7)	0.5(0.45)

Note: When ordering, please specify tolerance code. Tolerance: M= \pm 20% , T= \pm 30%

- All test data is referenced to 25 $^{\circ}$ C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}:DC current(A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range—55 $^{\circ}$ C to \sim +155 $^{\circ}$ C



Mini Molding Power Inductors - HBE201208A Series

HBE201208A series Electrical Characteristics

Part No.	Inductance (μ H)	Tolerance (\pm %)	Test Freq.	RDC(m Ω) Typ.(Max)	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)
HBE201208A-R11M	0.11	20	1MHz, 1.0V	10(12)	9.5(9.0)	7.0(6.5)
HBE201208A-R15M	0.15	20	1MHz, 1.0V	11(13)	7.5(7.0)	6.8(6.3)
HBE201208A-R24M	0.24	20	1MHz, 1.0V	18(23)	6.5(6.0)	6.5(5.9)
HBE201208A-R33M	0.33	20	1MHz, 1.0V	33(45)	5.2(4.8)	4.3(4.0)
HBE201208A-R47M	0.47	20	1MHz, 1.0V	34(50)	5.0(4.6)	3.5(3.3)
HBE201208A-R68M	0.68	20	1MHz, 1.0V	50(60)	4.2(3.7)	3.7(3.3)
HBE201208A-1R0M	1.0	20	1MHz, 1.0V	55(70)	4.0(3.5)	3.3(2.9)
HBE201208A-1R5M	1.5	20	1MHz, 1.0V	118(135)	3.0(2.5)	2.2(1.9)
HBE201208A-2R2M	2.2	20	1MHz, 1.0V	160(185)	2.6(2.3)	2.2(1.8)
HBE201208A-3R3M	3.3	20	1MHz, 1.0V	253(300)	1.9(1.6)	1.8(1.5)
HBE201208A-4R7M	4.7	20	1MHz, 1.0V	285(325)	1.6(1.4)	1.7(1.5)

Note: When ordering, please specify tolerance code. Tolerance: M= \pm 20% , T= \pm 30%

- All test data is referenced to 25 $^{\circ}$ C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}:DC current(A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range—55 $^{\circ}$ C to \sim +155 $^{\circ}$ C



Mini Molding Power Inductors - HBE201610A Series

HBE201610A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE201610A-R10□	0.10	20,30	1MHz,1.0V	7.0(12)	9.0(8.5)	8.5(8.0)
HBE201610A-R15□	0.15	20,30	1MHz,1.0V	8.0(14)	8.7(8.1)	7.6(7.1)
HBE201610A-R22□	0.22	20,30	1MHz,1.0V	11(18)	8.2(7.6)	7.0(6.4)
HBE201610A-R24□	0.24	20,30	1MHz,1.0V	12(19)	8.0(7.5)	6.8(6.3)
HBE201610A-R33□	0.33	20,30	1MHz,1.0V	17(22)	7.0(6.6)	5.7(5.4)
HBE201610A-R47□	0.47	20,30	1MHz,1.0V	22(25)	6.3(5.6)	5.5(5.1)
HBE201610A-R68□	0.68	20,30	1MHz,1.0V	25(32)	5.2(4.8)	4.6(4.4)
HBE201610A-1R0□	1.0	20,30	1MHz,1.0V	35(43)	4.6(4.3)	4.5(4.2)
HBE201610A-1R5□	1.5	20,30	1MHz,1.0V	80(100)	3.3(3.0)	2.6(2.3)
HBE201610A-2R2□	2.2	20,30	1MHz,1.0V	120(130)	3.0(2.9)	2.5(2.2)
HBE201610A-3R3□	3.3	20,30	1MHz,1.0V	140(170)	2.4(2.0)	1.7(1.6)
HBE201610A-4R7□	4.7	20,30	1MHz,1.0V	190(220)	2.0(1.9)	1.6(1.5)
HBE201610A-100□	10	20,30	1MHz,1.0V	483(580)	1.4(1.1)	1.0(0.7)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}:DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE201612A Series

HBE201612A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE201612A-R10□	0.10	20,30	1MHz, 1.0V	4(6)	13(12)	12(11)
HBE201612A-R15□	0.15	20,30	1MHz, 1.0V	7.5(10)	12(10.5)	10(9.0)
HBE201612A-R24□	0.24	20,30	1MHz, 1.0V	9(11)	9.2(8.7)	9.1(8.6)
HBE201612A-R33□	0.33	20,30	1MHz, 1.0V	10(15)	7.8(7.3)	7.7(7.2)
HBE201612A-R47□	0.47	20,30	1MHz, 1.0V	13(17)	6.7(6.0)	6.7(6.0)
HBE201612A-R68□	0.68	20,30	1MHz, 1.0V	19(23)	6.0(5.3)	6.0(5.3)
HBE201612A-1R0□	1.0	20,30	1MHz, 1.0V	30(36)	5.0(4.5)	5.0(4.5)
HBE201612A-1R5□	1.5	20,30	1MHz, 1.0V	40(50)	4.0(3.5)	4.0(3.5)
HBE201612A-2R2□	2.2	20,30	1MHz, 1.0V	77(90)	3.1(2.7)	3.3(2.9)
HBE201612A-3R3□	3.3	20,30	1MHz, 1.0V	135(165)	2.7(2.3)	2.4(2.0)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}: DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE252010A Series

HBE252010A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE252010A-R22□	0.22	20,30	1MHz, 1.0V	12(17)	8.6(7.9)	6.8(6.5)
HBE252010A-R24□	0.24	20,30	1MHz, 1.0V	12(17.5)	8.5(7.8)	6.7(6.4)
HBE252010A-R33□	0.33	20,30	1MHz, 1.0V	13(19)	7.6(7.2)	6.5(6.2)
HBE252010A-R47□	0.47	20,30	1MHz, 1.0V	15(22)	6.9(6.5)	6.1(5.6)
HBE252010A-R68□	0.68	20,30	1MHz, 1.0V	23(27)	5.9(5.5)	5.6(5.0)
HBE252010A-1R0□	1.0	20,30	1MHz, 1.0V	25(30)	5.3(4.8)	4.5(4.1)
HBE252010A-1R5□	1.5	20,30	1MHz, 1.0V	45(55)	4.3(3.9)	3.4(3.0)
HBE252010A-2R2□	2.2	20,30	1MHz, 1.0V	62(70)	3.3(3.0)	2.4(2.1)
HBE252010A-3R3□	3.3	20,30	1MHz, 1.0V	86(100)	2.8(2.5)	2.5(2.1)
HBE252010A-4R7□	4.7	20,30	1MHz, 1.0V	160(180)	2.6(2.0)	2.0(1.6)
HBE252010A-6R8□	6.8	20,30	1MHz, 1.0V	270(320)	2.4(1.9)	1.6(1.4)
HBE252010A-100□	10	20,30	1MHz, 1.0V	500(561)	1.55(1.4)	1.05(0.95)
HBE252010A-220□	22	20,30	1MHz, 1.0V	1100(1300)	1.1(0.9)	0.85(0.6)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}: DC current(A) that will cause an approximate ΔT of 40°C
- I_{sat}: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE252012A Series

HBE252012A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE252012A-R10□	0.10	20,30	1MHz, 1.0V	6.0(10.0)	13.5(12.5)	12.0(10.5)
HBE252012A-R15□	0.15	20,30	1MHz, 1.0V	7.0(11.0)	13.0(12.0)	11.5(10.0)
HBE252012A-R22□	0.22	20,30	1MHz, 1.0V	9.0(14.0)	9.6(9.0)	8.2(7.6)
HBE252012A-R24□	0.24	20,30	1MHz, 1.0V	10.0(15.0)	9.3(8.8)	8.0(7.5)
HBE252012A-R33□	0.33	20,30	1MHz, 1.0V	11.0(17.0)	8.3(7.8)	6.8(6.4)
HBE252012A-R47□	0.47	20,30	1MHz, 1.0V	13.0(19.0)	7.5(7.0)	6.5(6.0)
HBE252012A-R68□	0.68	20,30	1MHz, 1.0V	17(23)	6.5(6.0)	6.3(5.5)
HBE252012A-R82□	0.82	20,30	1MHz, 1.0V	19(24)	6.5(5.8)	5.8(5.3)
HBE252012A-1R0□	1.0	20,30	1MHz, 1.0V	35(42)	5.6(5.0)	4.0(3.6)
HBE252012A-1R2□	1.2	20,30	1MHz, 1.0V	40(45)	4.5(4.1)	3.8(3.4)
HBE252012A-1R5□	1.5	20,30	1MHz, 1.0V	44(50)	4.5(4.1)	3.7(3.2)
HBE252012A-2R2□	2.2	20,30	1MHz, 1.0V	55(65)	3.8(3.3)	3.0(2.7)
HBE252012A-3R3□	3.3	20,30	1MHz, 1.0V	80(97)	3.0(2.7)	2.3(1.8)
HBE252012A-4R7□	4.7	20,30	1MHz, 1.0V	150(170)	2.4(2.1)	1.8(1.5)
HBE252012A-6R8□	6.8	20,30	1MHz, 1.0V	245(270)	2.0(1.7)	1.6(1.4)
HBE252012A-100□	10	20,30	1MHz, 1.0V	330(400)	1.6(1.45)	1.2(1.05)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- Irms: DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range—55°C to ~+155°C



Mini Molding Power Inductors - HBE303020A Series

HBE303020A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE303020A-R15□	0.15	20,30	1MHz,1.0V	4.0(5.0)	18.0(17.0)	13.0(12.0)
HBE303020A-R33□	0.33	20,30	1MHz,1.0V	7.5(9.0)	17.0(15.0)	10.0(9.0)
HBE303020A-R50□	0.5	20,30	1MHz,1.0V	9.0(12.0)	15.0(13.0)	9.0(8.0)
HBE303020A-R68□	0.68	20,30	1MHz,1.0V	13.0(16.0)	13.0(11.0)	8.5(7.8)
HBE303020A-1R0□	1.0	20,30	1MHz,1.0V	14.0(20.0)	8.0(7.5)	6.5(6.0)
HBE303020A-1R5□	1.5	20,30	1MHz,1.0V	19.0(25.0)	7.0(6.5)	6.3(5.8)
HBE303020A-2R2□	2.2	20,30	1MHz,1.0V	37.0(45.0)	6.0(5.5)	4.7(4.3)
HBE303020A-3R3□	3.3	20,30	1MHz,1.0V	52.0(63.0)	5.9(5.4)	4.5(4.0)
HBE303020A-4R7□	4.7	20,30	1MHz,1.0V	60.0(73.0)	4.8(4.0)	4.2(3.8)
HBE303020A-6R8□	6.8	20,30	1MHz,1.0V	107(135)	4.5(3.8)	3.2(3.0)
HBE303020A-100□	10	20,30	1MHz,1.0V	135(160)	3.8(3.3)	2.5(2.2)
HBE303020A-150□	15	20,30	1MHz,1.0V	235(260)	2.6(2.2)	1.8(1.5)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- Irms:DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE322510A Series

HBE322510A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE322510A-R33□	0.33	20,30	1MHz, 1.0V	11(15)	8.3(7.8)	8.3(7.8)
HBE322510A-R47□	0.47	20,30	1MHz, 1.0V	17(22)	8.3(7.6)	6.4(5.9)
HBE322510A-R68□	0.68	20,30	1MHz, 1.0V	22(28)	7.5(7.0)	6.2(5.7)
HBE322510A-1R0□	1.0	20,30	1MHz, 1.0V	25(30)	6.0(5.3)	5.4(4.9)
HBE322510A-1R5□	1.5	20,30	1MHz, 1.0V	34(42)	5.0(4.4)	4.0(3.6)
HBE322510A-2R2□	2.2	20,30	1MHz, 1.0V	55(66)	4.0(3.5)	3.7(3.4)
HBE322510A-3R3□	3.3	20,30	1MHz, 1.0V	105(120)	3.7(3.3)	2.7(2.3)
HBE322510A-4R7□	4.7	20,30	1MHz, 1.0V	125(140)	2.8(2.5)	2.3(1.9)
HBE322510A-6R8□	6.8	20,30	1MHz, 1.0V	290(320)	2.4(2.0)	1.9(1.6)
HBE322510A-100□	10	20,30	1MHz, 1.0V	325(365)	2.2(1.8)	2.2(1.8)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}: DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE322512A Series

HBE322512A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m Ω)	Isat(A)	Irms(A)
	(μ H)	(\pm %)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE322512A-R10 \square	0.10	20,30	1MHz, 1.0V	5.2(7.0)	18.0(16.5)	12.0(11.0)
HBE322512A-R22 \square	0.22	20,30	1MHz, 1.0V	6.6(10)	11.5(11.0)	9.2(8.7)
HBE322512A-R24 \square	0.24	20,30	1MHz, 1.0V	7.0(12)	11(10.5)	9.0(8.5)
HBE322512A-R33 \square	0.33	20,30	1MHz, 1.0V	9.0(14)	10(9.5)	8.4(8.1)
HBE322512A-R47 \square	0.47	20,30	1MHz, 1.0V	14(19)	8.6(8.2)	7.5(7.2)
HBE322512A-R68 \square	0.68	20,30	1MHz, 1.0V	18(23)	8.1(7.7)	7.3(6.8)
HBE322512A-1R0 \square	1.0	20,30	1MHz, 1.0V	26(30)	6.6(5.8)	5.3(4.8)
HBE322512A-1R5 \square	1.5	20,30	1MHz, 1.0V	37(44)	5.1(4.7)	4.7(4.3)
HBE322512A-2R2 \square	2.2	20,30	1MHz, 1.0V	58(70)	4.6(4.2)	3.6(3.0)
HBE322512A-3R3 \square	3.3	20,30	1MHz, 1.0V	75(95)	3.7(3.2)	2.9(2.5)
HBE322512A-4R7 \square	4.7	20,30	1MHz, 1.0V	115(135)	2.9(2.6)	2.3(2.0)
HBE322512A-6R8 \square	6.8	20,30	1MHz, 1.0V	177(210)	2.8(2.4)	2.1(1.9)
HBE322512A-100 \square	10	20,30	1MHz, 1.0V	210(230)	2.3(1.9)	2.2(1.8)

Note: When ordering, please specify tolerance code. Tolerance: M= \pm 20% , T= \pm 30%

- All test data is referenced to 25 $^{\circ}$ C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}: DC current(A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55 $^{\circ}$ C to ~+155 $^{\circ}$ C



Mini Molding Power Inductors - HBE322520A Series

HBE322520A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE322520A-R33□	0.33	20,30	1MHz, 1.0V	7.5(9.0)	15.5(14)	9.5(9.0)
HBE322520A-R47□	0.47	20,30	1MHz, 1.0V	9(10.5)	15(13)	9.5(8.5)
HBE322520A-R68□	0.68	20,30	1MHz, 1.0V	12.5(14.5)	13(11)	9.0(8.0)
HBE322520A-1R0□	1.0	20,30	1MHz, 1.0V	15(17.5)	9.0(8.3)	8.2(7.5)
HBE322520A-1R5□	1.5	20,30	1MHz, 1.0V	22(25)	6.8(6.0)	6.5(6.0)
HBE322520A-2R2□	2.2	20,30	1MHz, 1.0V	36(43)	6.5(5.5)	5.4(4.8)
HBE322520A-3R3□	3.3	20,30	1MHz, 1.0V	55(60)	4.5(3.5)	4.5(4.0)
HBE322520A-4R7□	4.7	20,30	1MHz, 1.0V	81(94)	4.0(3.0)	3.5(3.0)
HBE322520A-6R8□	6.8	20,30	1MHz, 1.0V	101(125)	3.8(2.9)	2.8(2.3)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}: DC current(A) that will cause an approximate ΔT of 40°C
- I_{sat}: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE404012A Series

HBE404012A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(m Ω)	Isat(A)	Irms(A)
	(μ H)	(\pm %)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE404012A-R47 \square	0.47	20,30	1MHz,1.0V	11.5(14.0)	12.0(11.5)	9.0(8.5)
HBE404012A-R68 \square	0.68	20,30	1MHz,1.0V	15.0(18.0)	10.0(9.0)	8.5(7.5)
HBE404012A-1R0 \square	1.0	20,30	1MHz,1.0V	21.0(25.0)	11.0(10.0)	6.3(5.5)
HBE404012A-1R5 \square	1.5	20,30	1MHz,1.0V	29.0(34.5)	8.0(7.0)	6.0(5.0)
HBE404012A-2R2 \square	2.2	20,30	1MHz,1.0V	45.0(55.0)	6.5(6.0)	5.0(4.5)
HBE404012A-3R3 \square	3.3	20,30	1MHz,1.0V	67.0(80.0)	5.5(5.0)	4.5(4.0)
HBE404012A-4R7 \square	4.7	20,30	1MHz,1.0V	90.0(110)	5.0(4.5)	3.5(3.0)
HBE404012A-5R6 \square	5.6	20,30	1MHz,1.0V	116(140)	4.5(4.0)	3.0(2.5)
HBE404012A-6R8 \square	6.8	20,30	1MHz,1.0V	132(160)	3.8(3.5)	2.8(2.3)
HBE404012A-100 \square	10	20,30	1MHz,1.0V	200(235)	2.8(2.5)	2.5(2.0)

Note: When ordering, please specify tolerance code. Tolerance: M= \pm 20% , T= \pm 30%

- All test data is referenced to 25 $^{\circ}$ C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}:DC current(A) that will cause an approximate Δ T of 40 $^{\circ}$ C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55 $^{\circ}$ C to ~+155 $^{\circ}$ C



Mini Molding Power Inductors - HBE404020A Series

HBE404020A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE404020A-R47□	0.47	20,30	1MHz, 1.0V	7.0(8.5)	16.0(15.0)	8.5(8.0)
HBE404020A-1R0□	1.0	20,30	1MHz, 1.0V	12.0(14.5)	12.5(11.5)	6.5(6.0)
HBE404020A-1R5□	1.5	20,30	1MHz, 1.0V	18.0(22.0)	10.5(9.5)	6.0(5.5)
HBE404020A-2R2□	2.2	20,30	1MHz, 1.0V	30.0(36.0)	9.5(8.5)	5.5(5.0)
HBE404020A-4R7□	4.7	20,30	1MHz, 1.0V	47.0(58.0)	6.3(5.5)	5.0(4.0)
HBE404020A-6R8□	6.8	20,30	1MHz, 1.0V	90.0(105.0)	5.4(4.5)	3.7(3.2)
HBE404020A-100□	10	20,30	1MHz, 1.0V	113.0(135.0)	4.9(4.0)	3.4(3.0)
HBE404020A-150□	15	20,30	1MHz, 1.0V	210.0(250.0)	3.5(3.0)	2.3(1.7)
HBE404020A-220□	22	20,30	1MHz, 1.0V	275.0(330.0)	2.9(2.3)	1.8(1.3)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- I_{rms}: DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range -55°C to ~+155°C



Mini Molding Power Inductors - HBE404030A Series

HBE404030A series Electrical Characteristics

Part No.	Inductance	Tolerance	Test Freq.	RDC(mΩ)	Isat(A)	Irms(A)
	(uH)	(±%)		Typ.(Max)	Typ.(Max)	Typ.(Max)
HBE404030A-R68□	0.47	20,30	1MHz,1.0V	8.3(10.0)	17.0(15.0)	9.5(8.0)
HBE404030A-1R5□	1.5	20,30	1MHz,1.0V	15.0(18.0)	12.5(11.0)	6.5(6.0)
HBE404030A-4R7□	4.7	20,30	1MHz,1.0V	41.0(46.0)	7.0(6.0)	4.3(4.0)
HBE404030A-6R8□	6.8	20,30	1MHz,1.0V	51.0(62.0)	6.3(5.1)	4.2(3.8)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

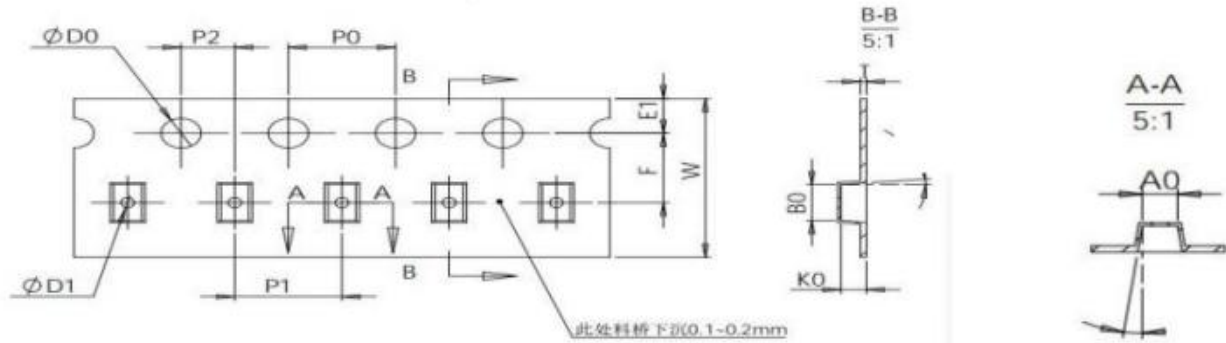
- All test data is referenced to 25°C ambient
- Test Condition: 1MHz, 1.0Vrms
- Irms:DC current(A) that will cause an approximate ΔT of 40°C
- Isat: DC current(A) that will cause L0 to drop approximately 30%
- Operating temperature range—55°C to~+155°C



Mini Molding Power Inductors - HBE Series

Dimension of plastic taping: (Unit: mm)

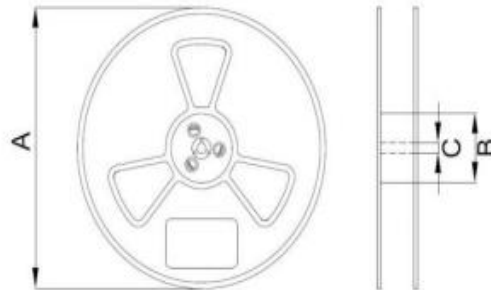
The following dimensions are related to the actual fit of the machine, for reference only.



Dimension of Reel : (Unit: mm)

Type	A ±2.0	B ±2.0	C ±2.0
All	178	60	13

Type	A ±2.0	B ±2.0	C ±2.0
All	330	100	13.0



Dimensions in mm

TYPE	Tape Dimensions							Quantity PCS/REEL
	A0	B0	T	W	P0	F	K0	
HBE141208A	1.50	1.70	0.22	8.0	4.0	3.5	0.95	3000
HBE160808A	1.04	1.82	0.22	8.0	4.0	3.5	0.95	3000
HBE201208A	1.50	2.30	0.22	8.0	4.0	3.5	1.00	3000
HBE201610A	1.95	2.35	0.25	8.0	4.0	3.5	1.15	3000
HBE201612A	1.90	2.30	0.25	8.0	4.0	3.5	1.35	3000
HBE252010A	2.45	2.80	0.25	8.0	4.0	3.5	1.20	3000
HBE252012A	2.35	2.80	0.23	8.0	4.0	3.5	1.35	3000
HBE303020A	3.40	3.45	0.30	12.0	4.0	5.5	2.20	3000
HBE322510A	2.80	3.50	0.25	12.0	4.0	3.5	1.15	3000
HBE322512A	2.90	3.50	0.25	12.0	4.0	3.5	1.35	3000
HBE322520A	2.90	3.50	0.23	8.0	4.0	3.5	2.20	2000
HBE404012A	4.40	4.40	0.30	12.0	4.0	5.5	1.30	3000
HBE404020A	4.40	4.40	0.30	12.0	4.0	5.5	2.20	3000
HBE404030A	4.40	4.40	0.35	12.0	4.0	5.5	3.10	2000