

BEBE Series



The BEBE Series is designed specifically to enhance the performance of both PFM and PWM applications. The Rac value at light load and the DCR value at heavy load are both exceptional. Furthermore, the saturated current performance is also optimal, helping to reduce the ripple current and enhance the efficiency.

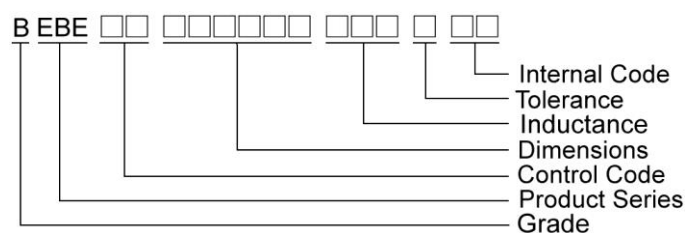
Features

- RoHS, Halogen Free and REACH Compliance
- High performance (Isat) realized by metal dust core.
- Low coil resistance with large currents.

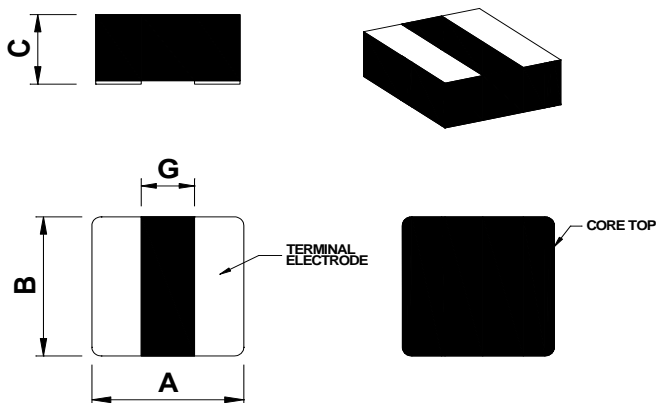
Applications

- Smartphones, wearable devices, Pad, Notebook

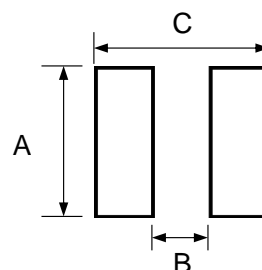
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	A	B	C	G
BEBE001412F5	1.4±0.2	1.2±0.2	0.65Max	0.53
BEBE00141208	1.4±0.2	1.2±0.2	0.8Max	0.53
BEBE00201208	2.0±0.2	1.2±0.2	0.8Max	0.6
BEBE00201210	2.0±0.2	1.2±0.2	1.0Max	0.6
BEBE00201212	2.0±0.2	1.2±0.2	1.2Max	0.6
BEBE00252010	2.5±0.2	2.0±0.2	1.0Max	0.7
BEBE00252012	2.5±0.2	2.0±0.2	1.2Max	0.7
BEBE00322508	3.2±0.2	2.5±0.2	0.8Max	0.9
BEBE00322510	3.2±0.2	2.5±0.2	1.2Max	0.9

Dimensions in mm

TYPE	A	B	C
BEBE001412F5	1.4	0.5	1.6
BEBE00141208	1.4	0.5	1.6
BEBE00201208	1.4	0.5	2.2
BEBE00201210	1.4	0.5	2.2
BEBE00201212	1.4	0.5	2.2
BEBE00252010	2.2	0.6	2.7
BEBE00252012	2.2	0.6	2.7
BEBE00322508	2.8	0.8	3.7
BEBE00322510	2.8	0.8	3.7

Molding Power Inductors – BEBE Series

Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE001412F5R33MMA	0.33	20	1MHz,1V	32.0(26.0)	5.0(5.5)	3.0(3.3)
BEBE001412F5R47MMA	0.47	20	1MHz,1V	42.0(35.0)	3.0(3.3)	2.6(2.9)

Note:

- Operating temperature range -55°C to 125°C.
- Isat for Inductance drop 30% from its value without current.
- Irms for a 40°C temperature rise from 25°C ambient.
- The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design 125°C under worst case operating conditions. Component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Absolute maximum voltage 15V DC. (Based on test method, it may not the same under different application, it is recommended to verify first.)

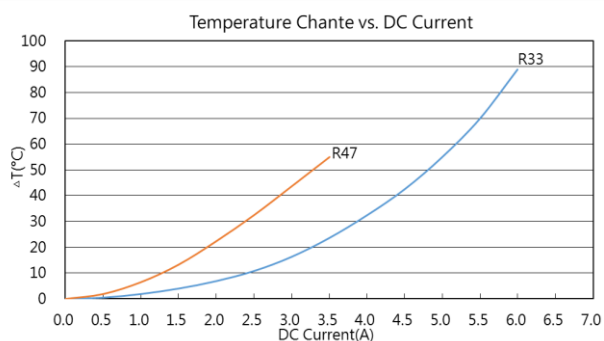
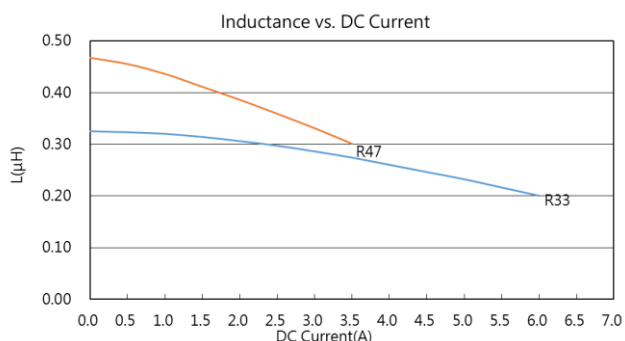
Test Instruments :

L : Agilent E4991/HP4286A+16197A/WP6500P (or equivalent), 1MHz 1V

DCR : CHEN HWA502BC/HP4338B (or equivalent)

Isat : Agilent E4980A+HP42841A (or equivalent)

Irms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



Molding Power Inductors – BEBE Series

Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE00141208R24MMA	0.24	20	1MHz,1V	21.5(18.5)	6.5(7.1)	5.3(5.8)
BEBE00141208R33MMA	0.33	20	1MHz,1V	25.0(23.0)	4.5(5.0)	3.6(4.0)
BEBE00141208R47MMA	0.47	20	1MHz,1V	30.0(28.0)	4.0(4.5)	3.0(3.3)
BEBE001412081R0MMA	1.00	20	1MHz,1V	77.0(70.0)	2.5(2.8)	2.0(2.3)
BEBE00141208R33MMS	0.33	20	1MHz,1V	25.0(23.0)	5.5(5.7)	3.6(4.0)
BEBE00141208R47MMS	0.47	20	1MHz,1V	30.0(28.0)	4.8(5.0)	3.0(3.3)

Note:

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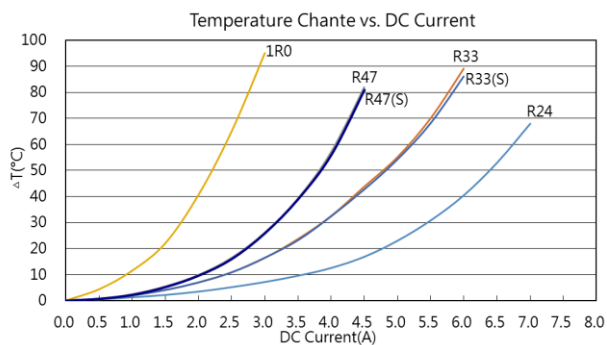
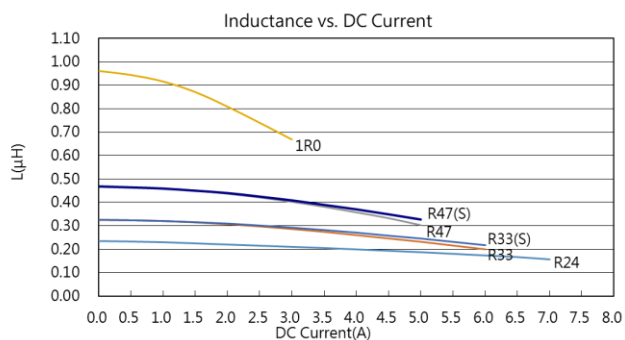
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DCR : CHEN HWA502BC/HP4338B (or equivalent)

Isat : Agilent E4980A+HP42841A (or equivalent)

Irms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



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Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE00201208R11MMA	0.11	20	1MHz,1V	12.0(10.0)	8.6(9.1)	6.5(7.0)
BEBE00201208R24MMA	0.24	20	1MHz,1V	20.0(17.0)	7.9(8.3)	6.0(6.5)
BEBE00201208R47MMA	0.47	20	1MHz,1V	25.0(23.0)	4.3(4.8)	3.7(4.2)

Note:

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- Absolute maximum voltage 15V DC. (Based on test method, it may not the same under different application, it is recommended to verify first.)

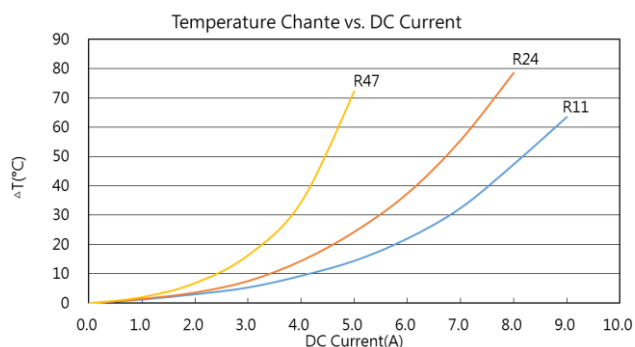
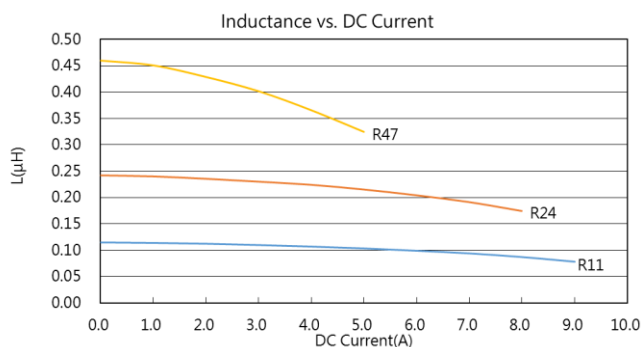
Test Instruments :

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DCR : CHEN HWA502BC/HP4338B (or equivalent)

Isat : Agilent E4980A+HP42841A (or equivalent)

I rms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



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Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE00201210R33MMA	0.33	20	1MHz, 1V	20.0(18.0)	6.0(6.5)	4.7(5.3)
BEBE00201210R47MMA	0.47	20	1MHz, 1V	24.0(21.0)	5.0(5.5)	4.2(4.7)
BEBE00201210R33MMS	0.33	20	1MHz, 1V	16.0(13.0)	6.0(6.6)	5.0(5.5)
BEBE00201210R47MMS	0.47	20	1MHz, 1V	20.0(16.5)	5.3(5.8)	4.5(5.0)

Note:

- Operating temperature range -55°C to 125°C.
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- Absolute maximum voltage 15V DC. (Based on test method, it may not the same under different application, it is recommended to verify first.)

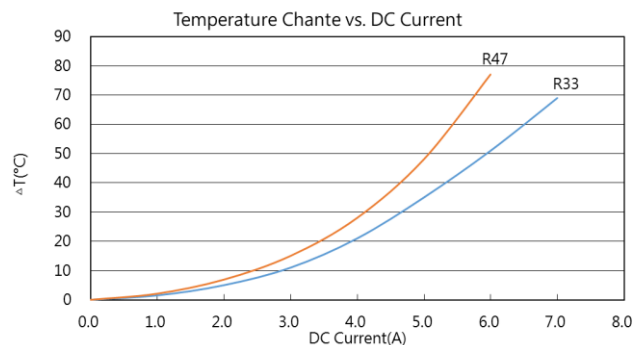
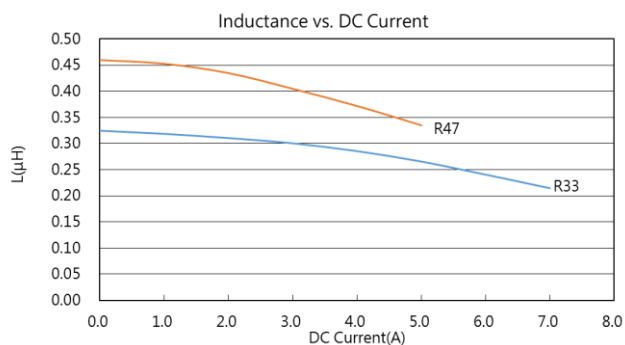
Test Instruments :

L : Agilent E4991/HP4286A+16197A/WP6500P (or equivalent), 1MHz 1V

DCR : CHEN HWA502BC/HP4338B (or equivalent)

Isat : Agilent E4980A+HP42841A (or equivalent)

Irms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



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Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE00201212R11MMS	0.11	20	1MHz,1V	5.8(5.0)	11.0(11.5)	9.5(10.0)
BEBE00201212R24MMA	0.24	20	1MHz,1V	19.0(17.0)	8.5(9.0)	7.0(7.5)
BEBE00201212R47MMA	0.47	20	1MHz,1V	23.5(22.0)	5.0(5.5)	4.5(5.0)

Note:

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- Absolute maximum voltage 15V DC. (Based on test method, it may not the same under different application, it is recommended to verify first.)

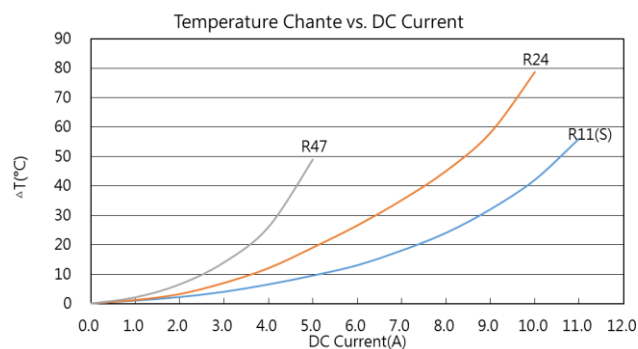
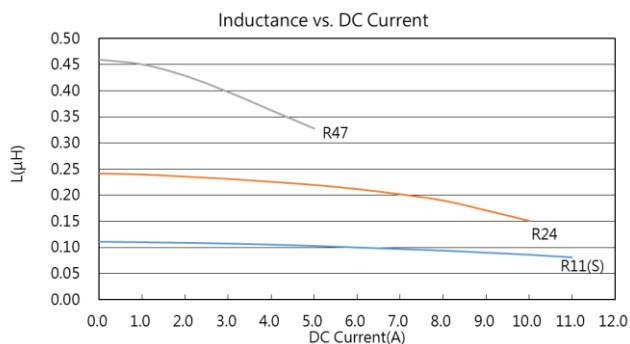
Test Instruments :

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Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE00252010R47MMB	0.47	20	1MHz,1V	25.0(19.0)	5.0(5.6)	3.7(4.3)
BEBE00252010R68MMA	0.68	20	1MHz,1V	18.5(16.0)	5.5(6.0)	5.0(5.5)
BEBE002520101R0MMA	1.00	20	1MHz,1V	25.0(18.0)	5.0(5.5)	5.2(5.7)
BEBE002520102R2MMA	2.20	20	1MHz,1V	77.0(70.0)	2.5(3.0)	2.6(2.9)

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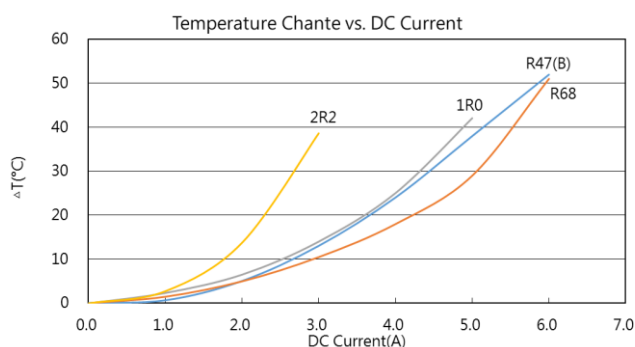
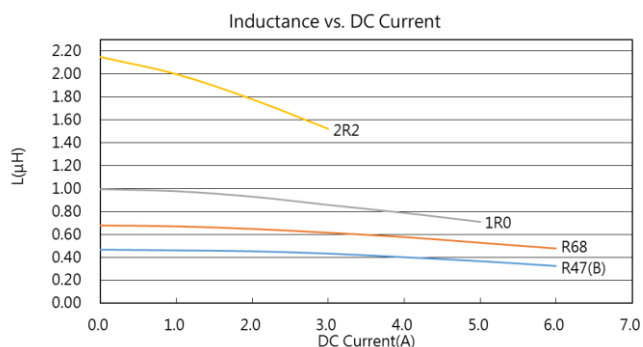
Test Instruments :

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Isat : Agilent E4980A+HP42841A (or equivalent)

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Electrical Characteristics

Part Number	Inductance (μ H)	Tolerance ($\pm\%$)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE00252012R22MMA	0.22	20	1MHz,1V	8.5(7.0)	9.0(10.5)	8.0(9.0)
BEBE00252012R47MMA	0.47	20	1MHz,1V	13.5(11.0)	6.7(7.4)	6.0(6.7)
BEBE002520121R0MMA	1.00	20	1MHz,1V	29.0(27.0)	5.0(5.5)	5.0(5.5)
BEBE002520121R5MMA	1.50	20	1MHz,1V	45.0(40.0)	4.0(4.3)	3.5(4.0)
BEBE00252012R22MMB	0.22	20	1MHz,1V	13.0(10.0)	9.0(9.5)	8.0(8.5)
BEBE00252012R47MMB	0.47	20	1MHz,1V	23.0(18.0)	5.9(6.5)	6.0(6.3)
BEBE002520121R0MMB	1.00	20	1MHz,1V	32.0(27.0)	4.3(4.9)	4.2(5.0)

Note:

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- Absolute maximum voltage 15V DC. (Based on test method, it may not the same under different application, it is recommended to verify first.)
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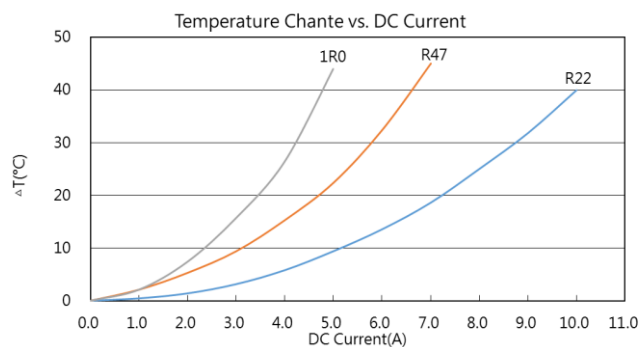
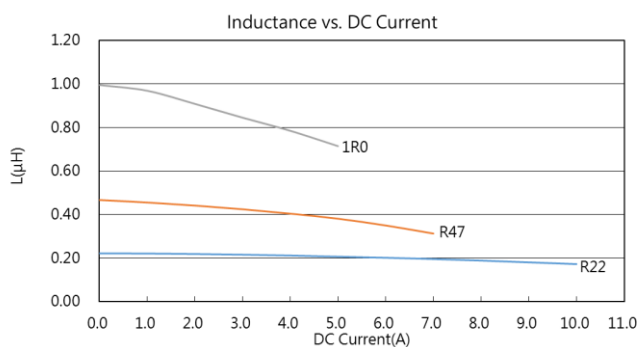
Test Instruments :

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DCR : CHEN HWA502BC/HP4338B (or equivalent)

Isat : Agilent E4980A+HP42841A (or equivalent)

Irms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



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Part Number	Inductance (μ H)	Tolerance (\pm %)	Test Frequency (MHz)	RDC(m Ω) Max.(Typ.)	Isat(A) Max.(Typ.)	Irms(A) Max.(Typ.)
BEBE0032250880NMMA	0.08	20	1MHz,1V	4.2(3.9)	14.5(15.5)	8.0(9.0)

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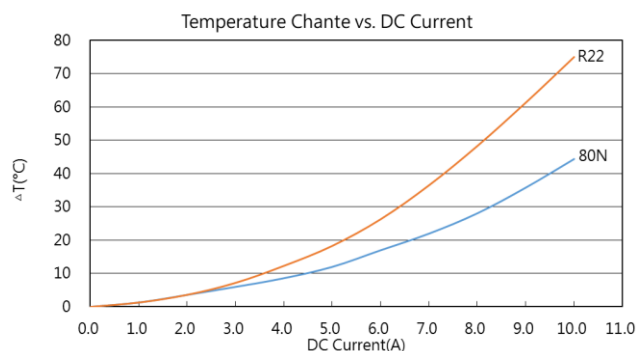
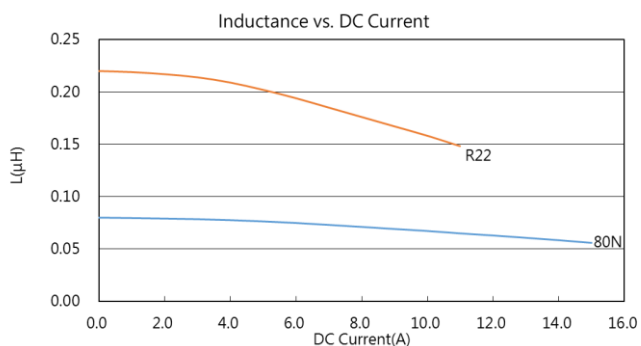
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BEBE00322510R22MMA	0.22	20	1MHz,1V	12.5(10.5)	10.0(11.0)	7.0(7.5)
BEBE00322510R47MMA	0.47	20	1MHz,1V	16.0(14.0)	10.0(10.5)	9.5(10.0)

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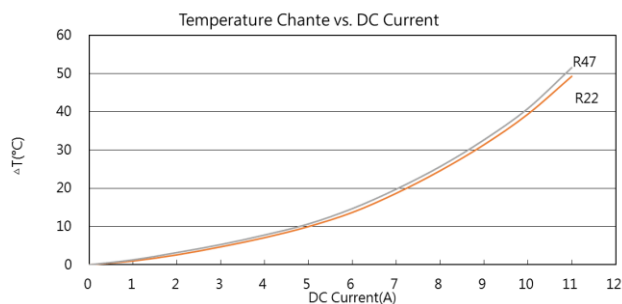
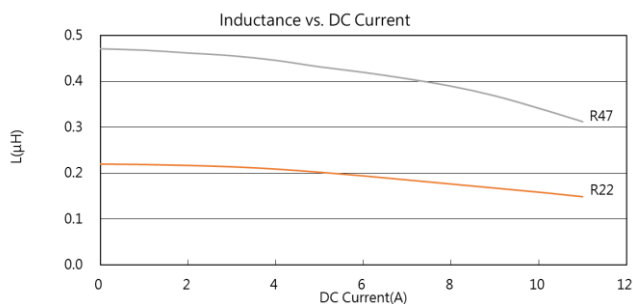
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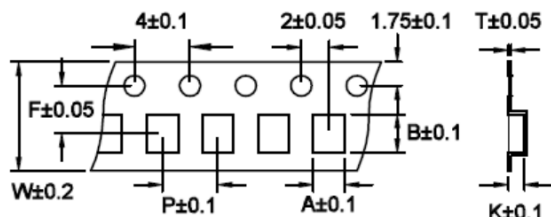
Isat : Agilent E4980A+HP42841A (or equivalent)

Irms : Agilent 6641 SYSTEM DC POWER SUPPLY (or equivalent)



Packaging Specifications

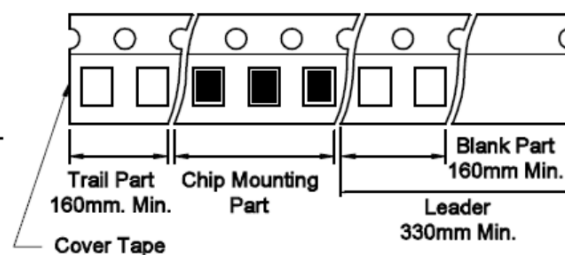
Tape Dimensions



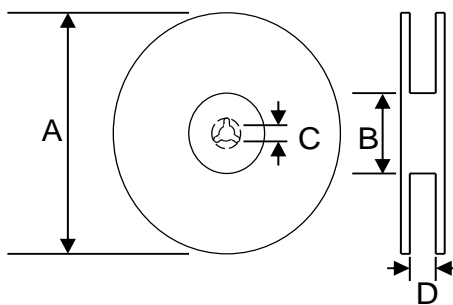
Tape Material

Tape Material

Carrier Tape: Polycarbonate
Cover Tape: Polyethylene



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL
	A	B	T	W	P	F	K	A	B	C	D	
BEBE001412F5	1.50	1.70	0.22	8	4	3.5	0.80	178	60	13	8	3000
BEBE00141208	1.50	1.70	0.22	8	4	3.5	1.04	178	60	13	8	3000
BEBE00201208	1.50	2.30	0.22	8	4	3.5	1.04	178	60	13	8	3000
BEBE00201210	1.50	2.30	0.22	8	4	3.5	1.15	178	60	13	8	3000
BEBE00201212	1.50	2.30	0.22	8	4	3.5	1.35	178	60	13	8	3000
BEBE00252010	2.30	2.80	0.25	8	4	3.5	1.15	178	60	13	8	3000
BEBE00252012	2.30	2.80	0.25	8	4	3.5	1.35	178	60	13	8	3000
BEBE00322508	2.80	3.50	0.25	8	4	3.5	1.04	178	60	13	8	3000
BEBE00322510	2.80	3.50	0.25	8	4	3.5	1.35	178	60	13	8	2000