

Power Inductor

AKPx Series - ISO9001 | ISO14001 | IATF16949



Noise
Suppression

Shield

Multilayer

Ferrite

General
Signal line

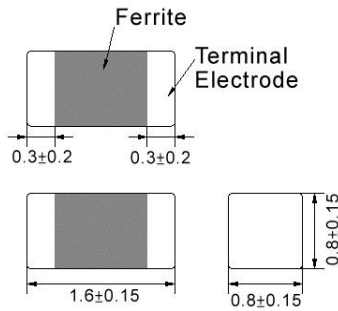
■ Part Numbering

A	KPx	00	201610	1R0	M	00
Grade	Series Name	Control Code	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code
	KPB		1608DZ 1.6x0.8x0.8	R47 0.47	T ±30%	A2
	KPE		201210 2.0x1.25x1.0	1R0 1.0	M ±20%	A6
			201610 2.0x1.6x1.0			
			252010 2.5x2.0x1.0			

This specification applies to Multilayer Chip Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.

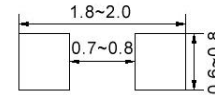
AKPB001608DZ Type

Dimensions



unit:mm

Recommended Land Pattern



unit:mm

Electrical Characteristics

Part No.	Inductance	Test Freq.	RDC	Isat	I _{rms} (mA)Max.		Tolerance
	(uH)				85°C ^{*1}	125°C ^{*1}	
AKPB001608DZR47□A2	0.47	3MHz,200mV	0.15	400	1100	800	20,30
AKPB001608DZ1R0□A2	1.0	3MHz,200mV	0.20	200	950	700	20,30
AKPB001608DZ2R2□A2	2.2	3MHz,200mV	0.30	150	750	550	20,30

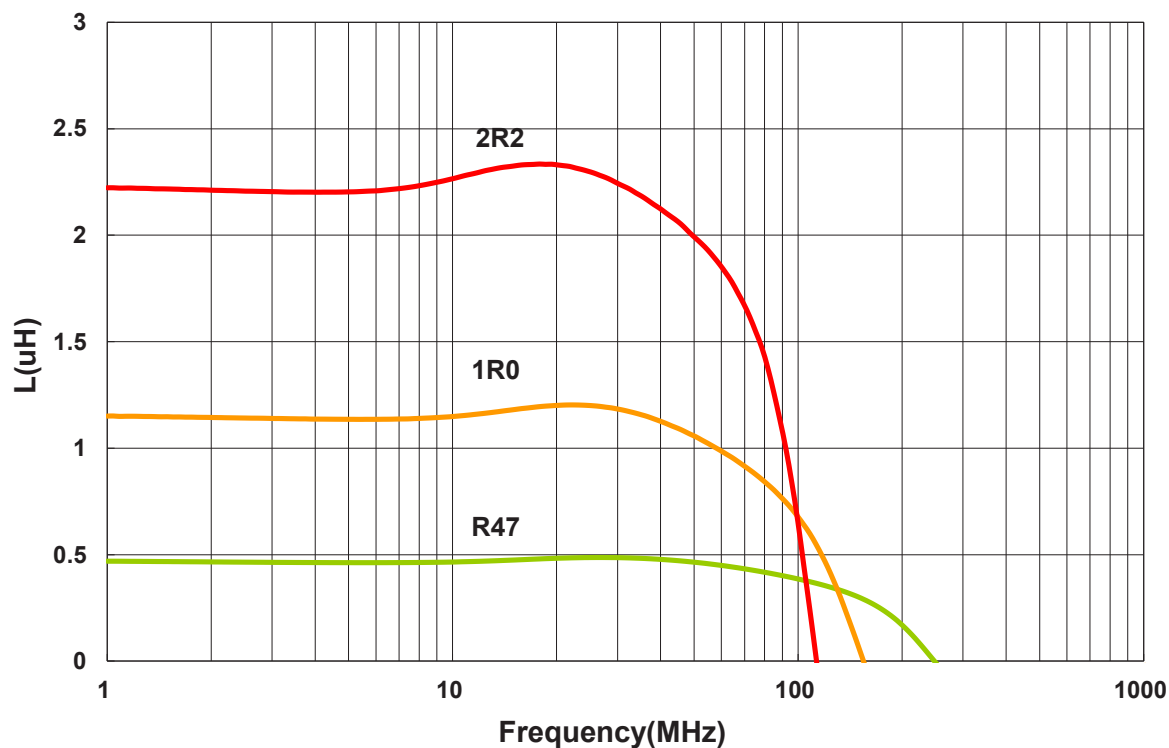
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 55°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I_{rms} for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with *1, Rated Current is depending on the operating temperature
5. Measure Equipment :
L : Agilent HP4287A+16197A
RDC : HP 4338B, or equivalent

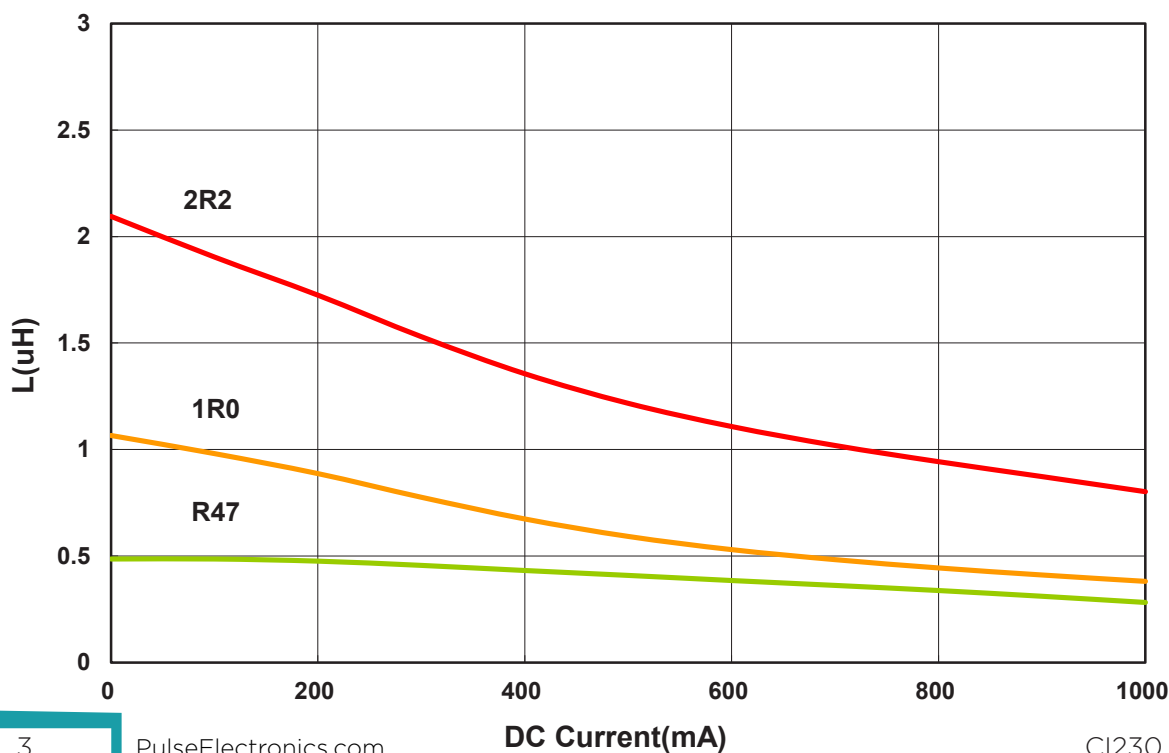
AKPB001608DZ Type

Characteristics Graph

Inductance vs. Frequency Characteristics

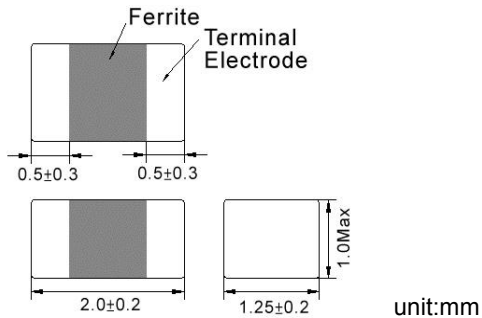


Inductance vs. DC Current

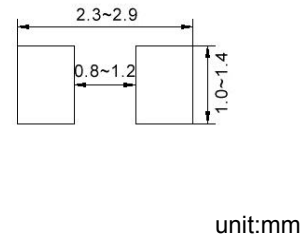


AKPB00201210 Type

Dimensions



Recommended Land Pattern



Electrical Characteristics

Part No.	Inductance	Test Freq.	RDC	Isat	I _{rms} (mA)Max.		Tolerance
	(uH)				85°C ^{*1}	125°C ^{*1}	
AKPB00201210R47□A2	0.47	3MHz,200mV	0.09	1100	1300	950	20,30
AKPB002012101R0□A2	1.0	3MHz,200mV	0.12	650	1200	900	20,30
AKPB002012101R5□A2	1.5	3MHz,200mV	0.15	450	1100	800	20,30
AKPB002012102R2□A2	2.2	3MHz,200mV	0.19	400	1100	800	20,30
AKPB002012103R3□A2	3.3	3MHz,200mV	0.24	300	800	600	20,30
AKPB002012104R7□A2	4.7	3MHz,200mV	0.26	200	700	500	20,30

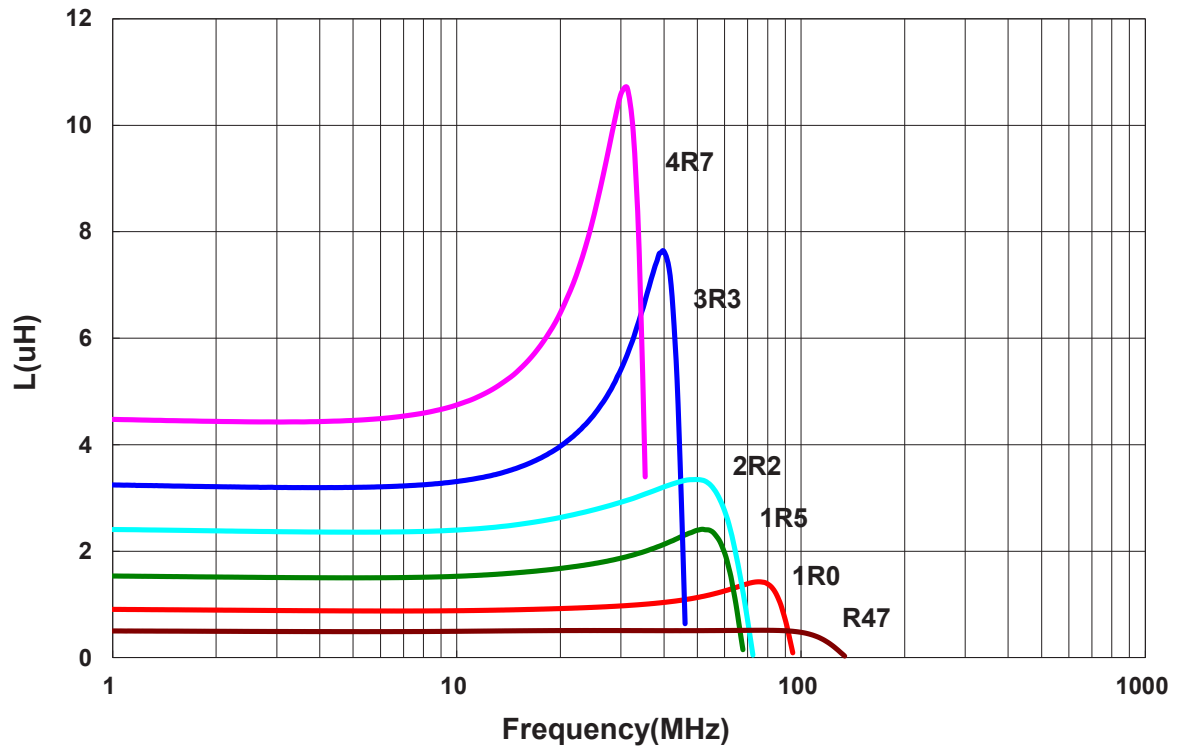
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 55°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I_{rms} for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with *1, Rated Current is depending on the operating temperature
5. Measure Equipment :
L : Agilent HP4287A+16197A
RDC : HP 4338B, or equivalent

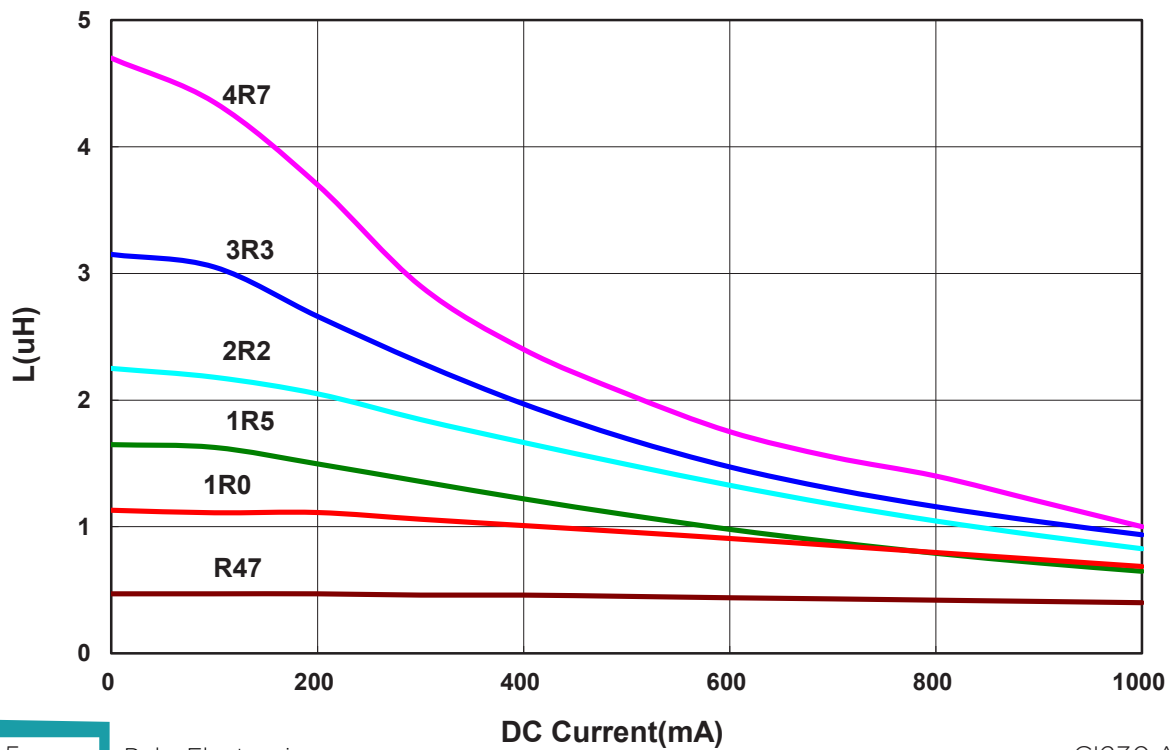
AKPB00201210 Type

Characteristics Graph

Inductance vs. Frequency Characteristics

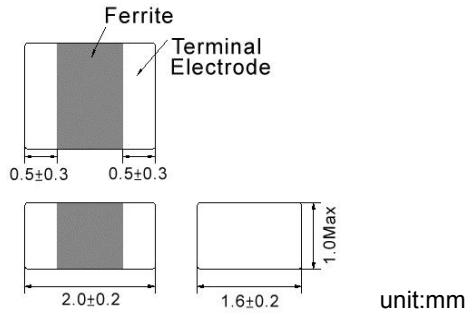


Inductance vs. DC Current

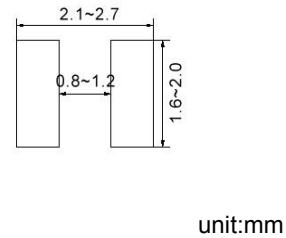


AKPB00201610 Type

Dimensions



Recommended Land Pattern



Electrical Characteristics

Part No.	Inductance	Test Freq.	RDC	Isat	I _{rms} (mA)Max.		Tolerance
	(uH)				85°C ^{*1}	125°C ^{*1}	
AKPB00201610R47□A6	0.47	3MHz,200mV	0.06	1200	1600	1200	20,30
AKPB002016101R0□A6	1.0	3MHz,200mV	0.09	850	1300	950	20,30
AKPB002016101R5□A6	1.5	3MHz,200mV	0.11	600	1200	900	20,30
AKPB002016102R2□A6	2.2	3MHz,200mV	0.11	400	1200	900	20,30
AKPB002016103R3□A6	3.3	3MHz,200mV	0.12	350	850	625	20,30
AKPB002016104R7□A6	4.7	3MHz,200mV	0.14	200	1100	800	20,30

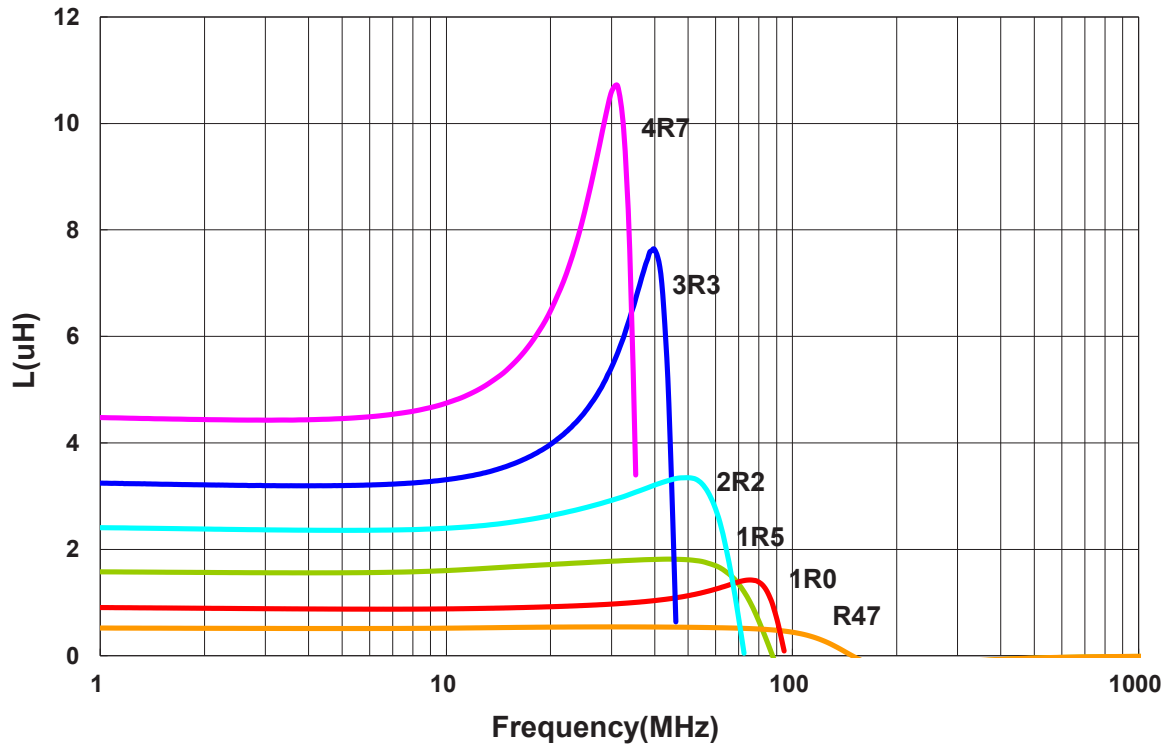
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 55°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I_{rms} for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with *1, Rated Current is depending on the operating temperature
5. Measure Equipment :
L : Agilent HP4287A+16197A
RDC : HP 4338B, or equivalent

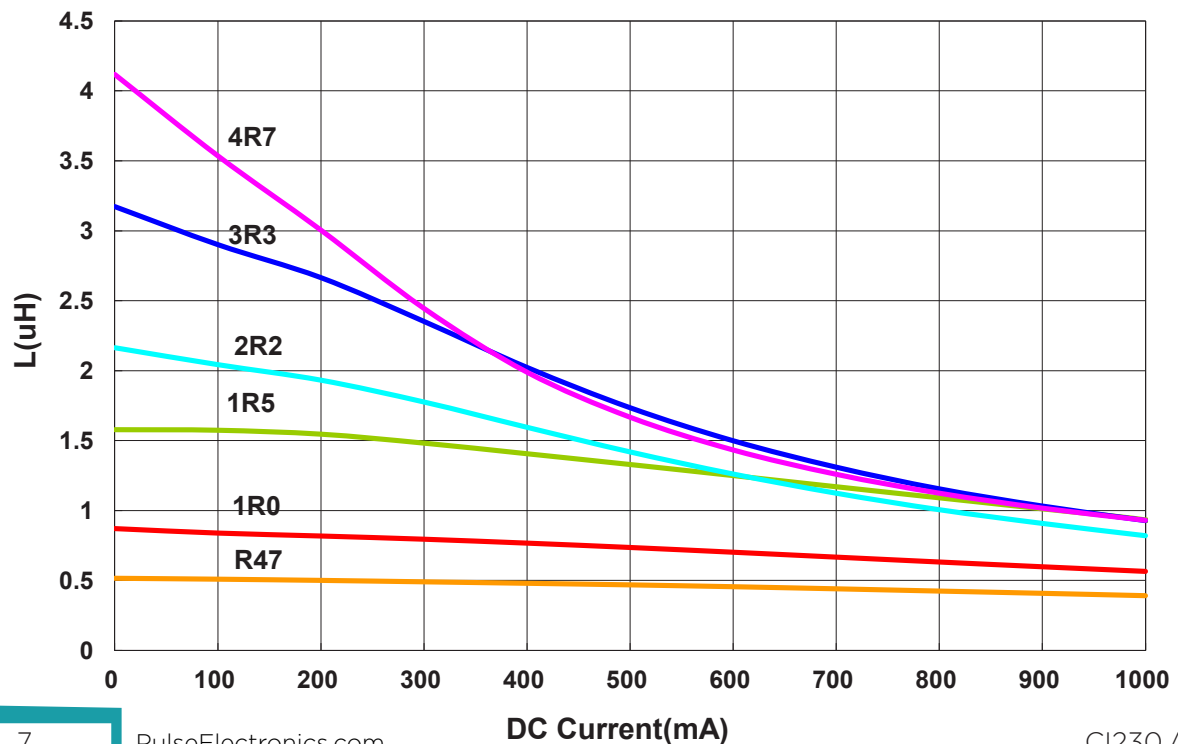
AKPB00201610 Type

Characteristics Graph

Inductance vs. Frequency Characteristics

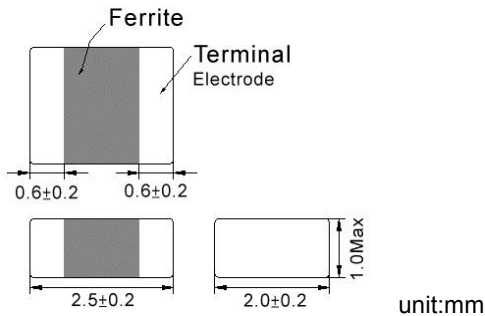


Inductance vs. DC Current

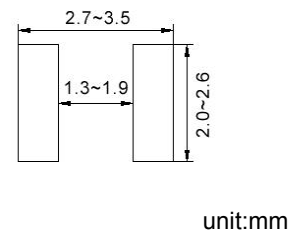


AKPB00252010 Type

Dimensions



Recommended Land Pattern



Electrical Characteristics

Part No.	Inductance	Test Freq.	RDC	Isat	I _{rms} (mA)Max.		Tolerance
	(μ H)				85°C ^{*1}	125°C ^{*1}	
AKPB00252010R47□A6	0.47	3MHz,200mV	0.040	1500	1800	1300	20,30
AKPB002520101R0□A6	1.0	3MHz,200mV	0.055	900	1600	1200	20,30
AKPB002520102R2□A6	2.2	3MHz,200mV	0.080	500	1300	950	20,30
AKPB002520103R3□A6	3.3	3MHz,200mV	0.100	400	1200	900	20,30
AKPB002520104R7□A6	4.7	3MHz,200mV	0.110	300	1100	800	20,30

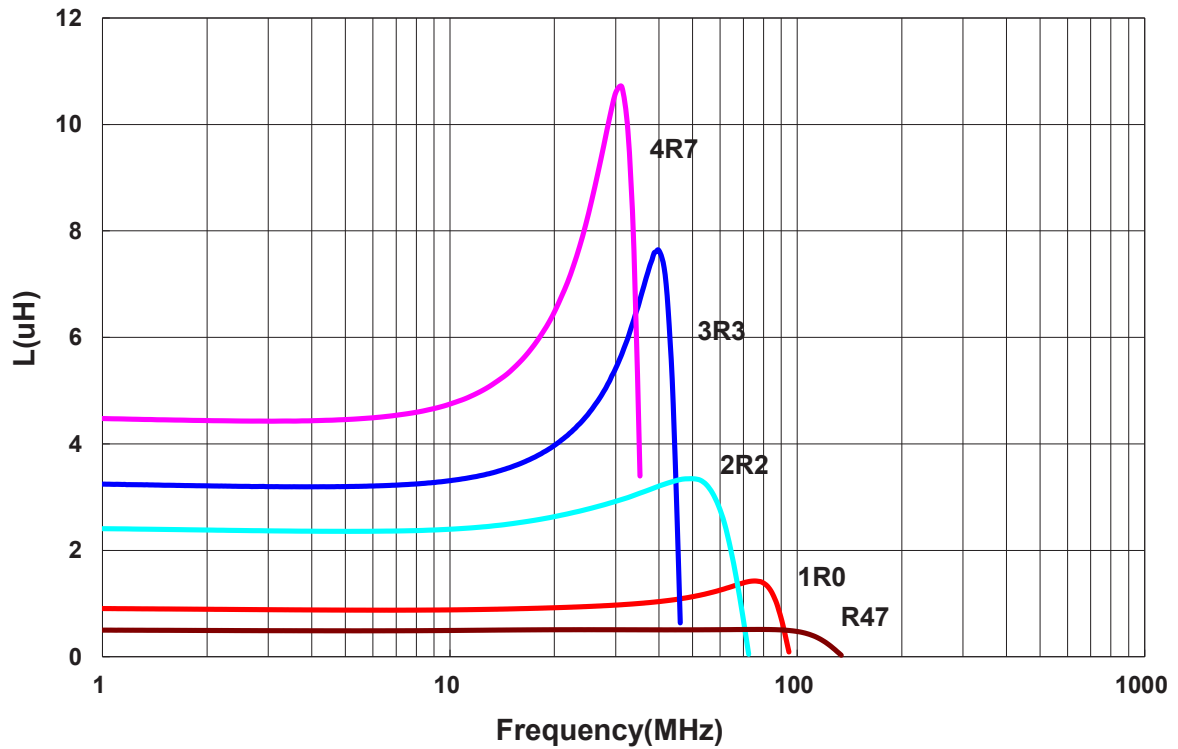
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 55°C ~ 125°C
2. Isat for Inductance drop 30% from its value without current
3. I_{rms} for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
4. As for the Rated current marked with *1, Rated Current is depending on the operating temperature
5. Measure Equipment :
L : Agilent HP4287A+16197A
RDC : HP 4338B, or equivalent

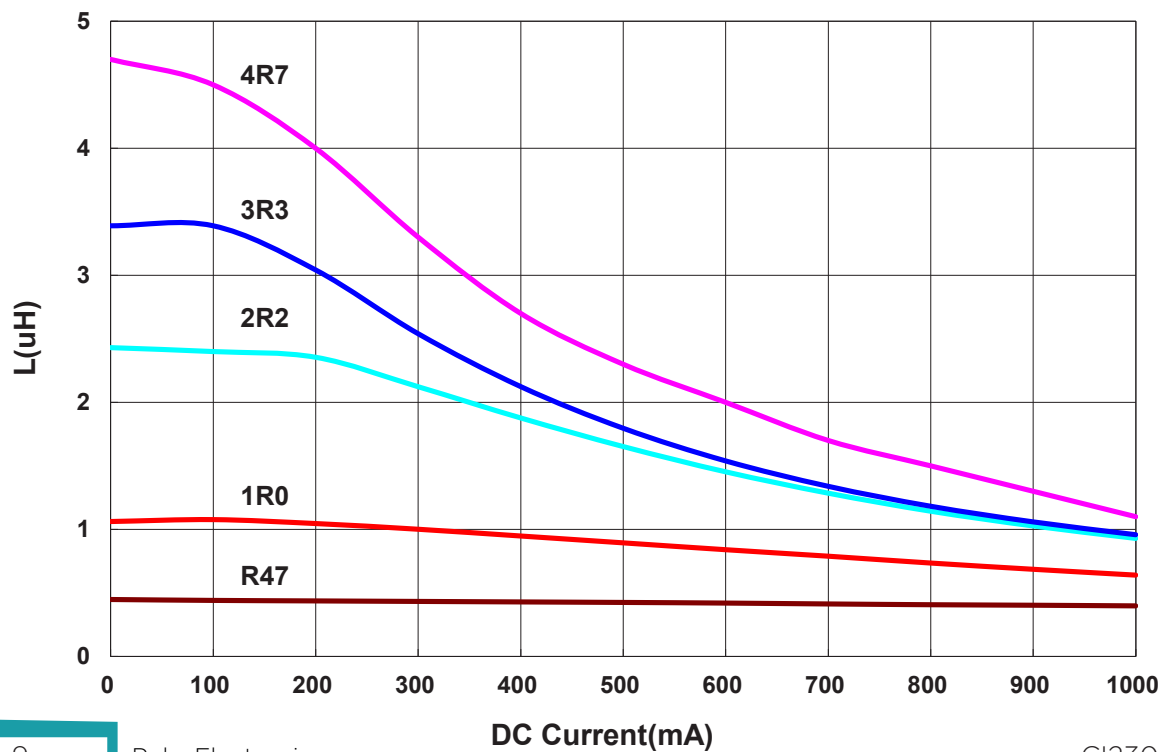
AKPB00252010 Type

Characteristics Graph

Inductance vs. Frequency Characteristics

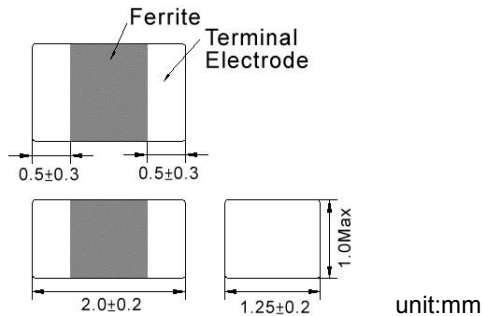


Inductance vs. DC Current

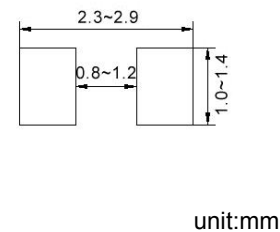


AKPE00201210 Type

Dimensions



Recommended Land Pattern



Electrical Characteristics

Part No.	Inductance	Test Freq.	RDC	Isat(mA)	I _{rms} (mA)Max.		Tolerance
	(uH)			Max.	85°C ^{*1}	125°C ^{*1}	
AKPE002012101R0□A2	1.0	3MHz,200mV	0.100	1400	1800	1300	20,30
AKPE002012102R2□A2	2.2	3MHz,200mV	0.125	500	1600	1200	20,30

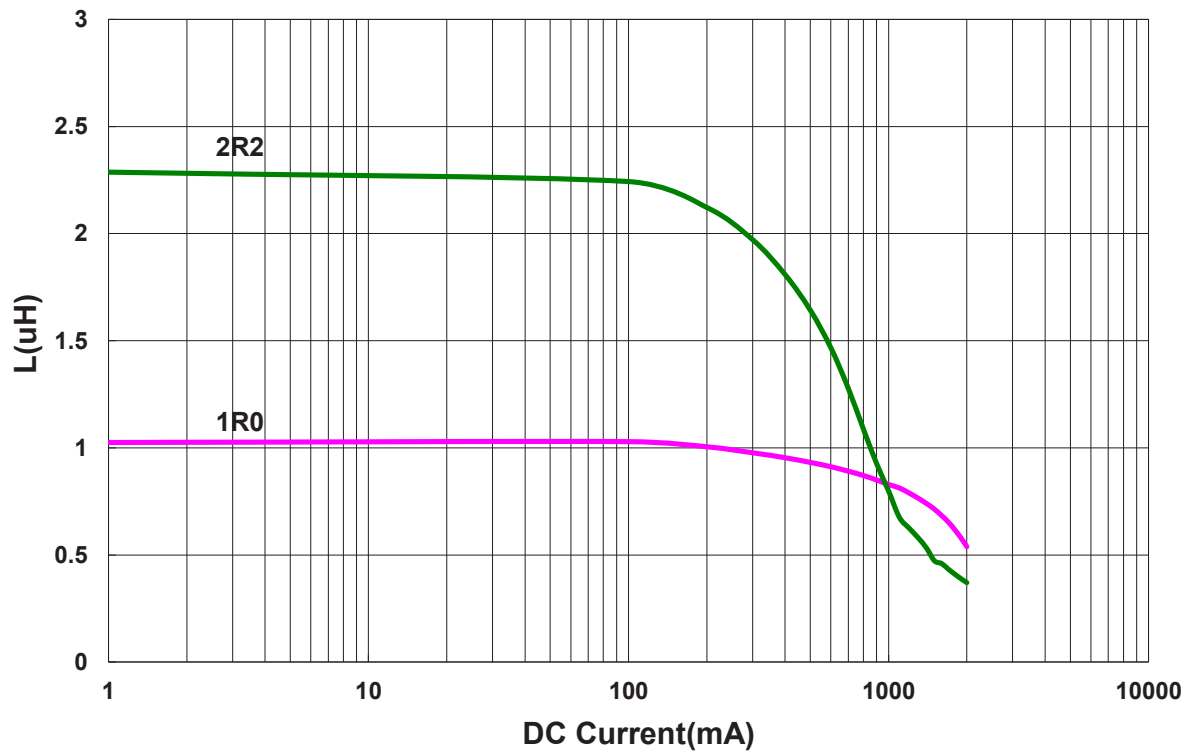
Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- Operating temperature range - 55°C ~ 125°C
- Isat for Inductance drop 30% from its value without current
- I_{rms} for When applied current to the Products, temperature rise caused by self-generated heat shall be limited to 40 °C max
- As for the Rated current marked with *1, Rated Current is depending on the operating temperature
- Measure Equipment :
L : Agilent HP4287A+16197A
RDC : HP 4338B, or equivalent

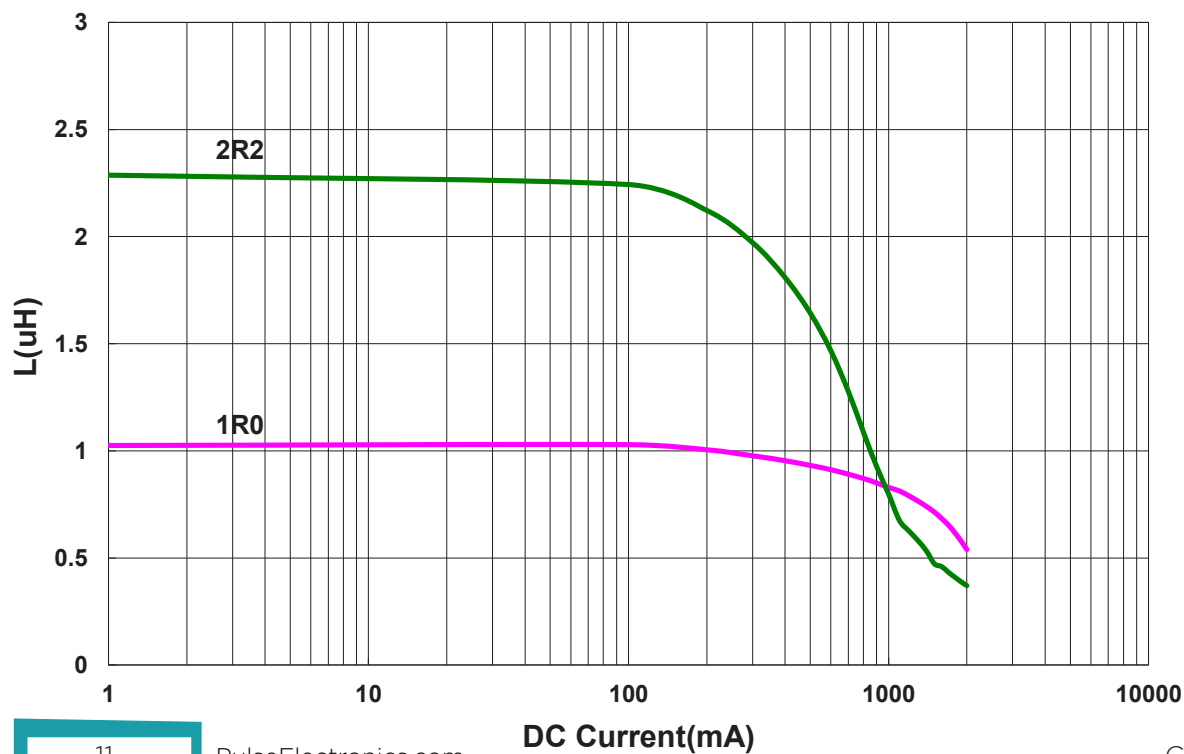
AKPE00201210 Type

Characteristics Graph

Inductance vs. DC Current

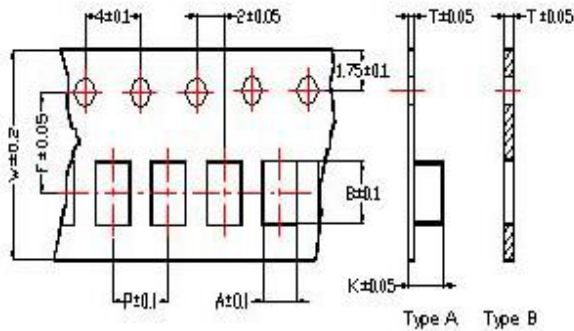


Inductance vs. DC Current



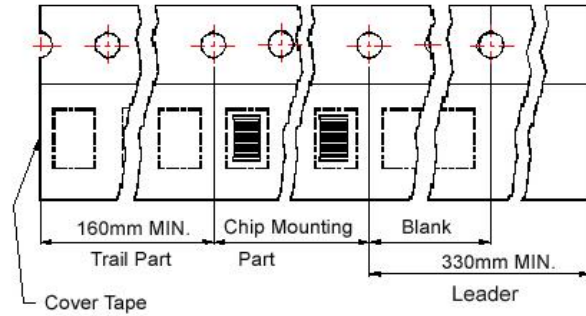
■ Packaging

Tape Dimensions

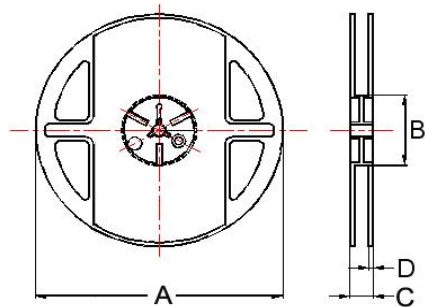


Tape Material

Carrier Tape: Polycarbonate (Tape A)
Carrier Tape: Paper (Tape B)
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS / Reel
	A	B	T	W	P	F	K	Tape	A	B	C	D	
AKPx001608DZ	1.05	1.85	0.95	8	4	3.5	-	B	178	60	12	1.5	4000
AKPx00201210	1.45	2.25	0.22	8	4	3.5	1.04	A	178	60	12	1.5	3000
AKPx00201610	1.8	2.2	0.22	8	4	3.5	1.15	A	178	60	12	1.5	3000
AKPx00252010	2.25	2.8	0.25	8	4	3.5	1.35	A	178	60	12	1.5	3000

For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2022. Pulse Electronics, Inc. All rights reserved.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Pulse:

<u>AKPB001608DZ1R0MA2</u>	<u>AKPB001608DZ1R0TA2</u>	<u>AKPB001608DZ2R2MA2</u>	<u>AKPB001608DZ2R2TA2</u>
<u>AKPB001608DZR47MA2</u>	<u>AKPB001608DZR47TA2</u>	<u>AKPB002012101R0MA2</u>	<u>AKPB002012101R0TA2</u>
<u>AKPB002012101R5MA2</u>	<u>AKPB002012101R5TA2</u>	<u>AKPB002012102R2MA2</u>	<u>AKPB002012102R2TA2</u>
<u>AKPB002012103R3MA2</u>	<u>AKPB002012103R3TA2</u>	<u>AKPB002012104R7MA2</u>	<u>AKPB002012104R7TA2</u>
<u>AKPB00201210R47MA2</u>	<u>AKPB00201210R47TA2</u>	<u>AKPB002016101R0MA6</u>	<u>AKPB002016101R0TA6</u>
<u>AKPB002016101R5MA6</u>	<u>AKPB002016101R5TA6</u>	<u>AKPB002016102R2MA6</u>	<u>AKPB002016102R2TA6</u>
<u>AKPB002016103R3MA6</u>	<u>AKPB002016103R3TA6</u>	<u>AKPB002016104R7MA6</u>	<u>AKPB002016104R7TA6</u>
<u>AKPB00201610R47MA6</u>	<u>AKPB00201610R47TA6</u>	<u>AKPB002520101R0MA6</u>	<u>AKPB002520101R0TA6</u>
<u>AKPB002520102R2MA6</u>	<u>AKPB002520102R2TA6</u>	<u>AKPB002520103R3MA6</u>	<u>AKPB002520103R3TA6</u>
<u>AKPB002520104R7MA6</u>	<u>AKPB002520104R7TA6</u>	<u>AKPB00252010R47MA6</u>	<u>AKPB00252010R47TA6</u>
<u>AKPE002012101R0MA2</u>	<u>AKPE002012101R0TA2</u>	<u>AKPE002012102R2MA2</u>	<u>AKPE002012102R2TA2</u>