

Solid Power Inductor

Multilayer Power Inductors for DC/DC converter

KSLI-252012AG Series

Halogen Free

RoHS compliant

Description

The KSLI-252012AG series is a multilayer power inductor optimized for 1-4MHz switching miniaturized DC/DC converters.

Features

- (1) Small size (2.5 x 2.0 mm² foot print, 1.2 mm max height)
- (2) Large rated current (2000mA (1R0), ΔT=40deg.C)
- (3) Low DC resistance (80 mΩ (1R0))
- (4) Full face shield structure
- (5) Green-products (RoHS compliant, Halogen Free)

Basic Characteristics

Part Number	Inductance(μH) (Tolerance +/-20%)	DC Resistance(mΩ) (Tolerance +/-25%)	Rated Current (mA)		
			Idc1(Saturation)		Idc2(ΔT=40deg.C)
			30%	50%	
KSLI-252012AG-4R7	4.7	115	375	550	1800
KSLI-252012AG-3R3	3.3	100	500	700	1900
KSLI-252012AG-2R2	2.2	100	1100	1600	1900
KSLI-252012AG-1R0	1.0	80	2300	3200	2000

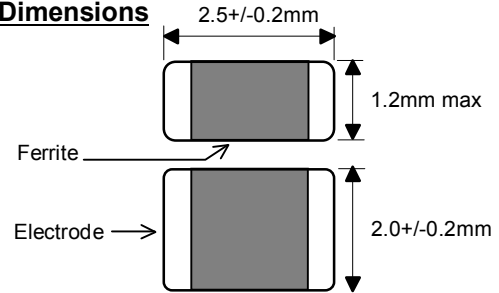
Idc1: DC current at which the inductance drops 30% or 50% from its value without current

Idc2: DC current causes temperature rise of 40 deg.C from 25 deg.C ambient.

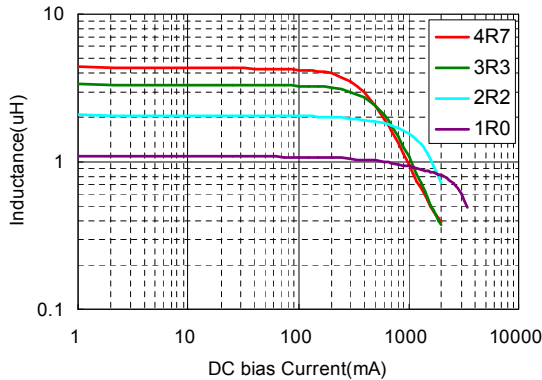
Applications

DC/DC converters for Cell phones and other portable instruments.

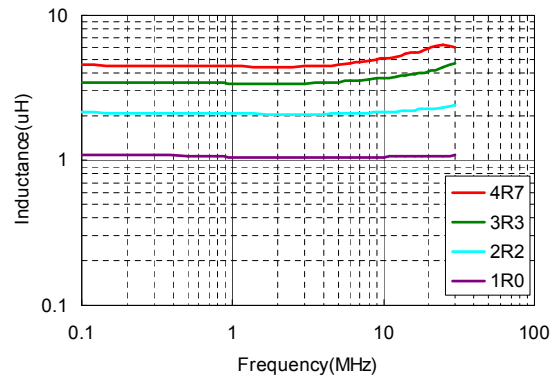
Dimensions



Inductance vs. DC bias current (Typ.)



Inductance vs. Frequency (Typ.)



Inductance characteristics are typical values and are not guaranteed.

⚠ Caution ; Do not use products beyond the rated current as this may create excessive heat causing equipment damage, open circuit and burn.

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Hitachi Metals, Ltd.

- Head Office ; Tel. +81-03-5765-4429, SEAVANS North Bldg. 2-1, Shibaura 1-chome, Minato-ku Tokyo 105-8614, Japan,

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Inquiry Form; https://www.hitachi-metals.co.jp/e/cntct/indx_cntct2.html

(This catalog is current as of Feb., 2009.)

Solid Power Inductor

Multilayer Power Inductors for DC/DC converter

KSLI-252010AG Series

Halogen Free

RoHS compliant

Description

The KSLI-252010AG series is a multilayer power inductor optimized for 1-4MHz switching miniaturized DC/DC converters.

Features

- (1) Small size (2.5 x 2.0 mm² foot print, 1.0 mm max height)
- (2) Large rated current (2600mA (1R0), $\Delta T=40\text{deg.C}$)
- (3) Low DC resistance (50 m Ω (1R0))
- (4) Full face shield structure
- (5) Green-products (RoHS compliant, Halogen Free)

Basic Characteristics

Part Number	Inductance(μH) (Tolerance +/-20%)	DC Resistance(m Ω) (Tolerance +/-25%)	Rated Current (mA)		
			Idc1(Saturation)		Idc2($\Delta T=40\text{deg.C}$)
			30%	50%	
KSLI-252010AG-4R7	4.7	115	190	300	1700
KSLI-252010AG-3R3	3.3	100	300	450	1800
KSLI-252010AG-2R2	2.2	100	900	1250	1800
KSLI-252010AG-1R5	1.5	70	900	1300	2200
KSLI-252010AG-1R0	1.0	50	750	1200	2600

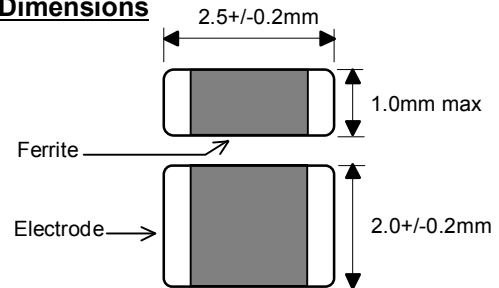
Idc1: DC current at which the inductance drops 30% or 50% from its value without current

Idc2: DC current causes temperature rise of 40 deg.C from 25 deg.C ambient.

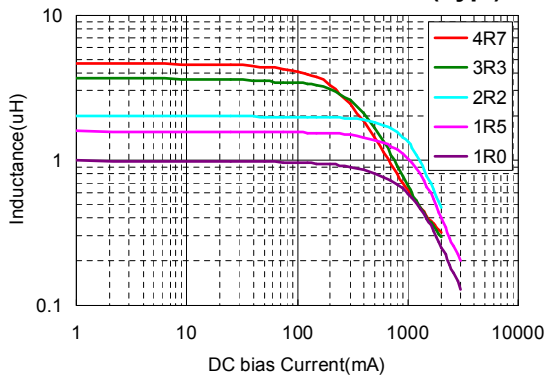
Applications

DC/DC converters for Cell phones and other portable instruments.

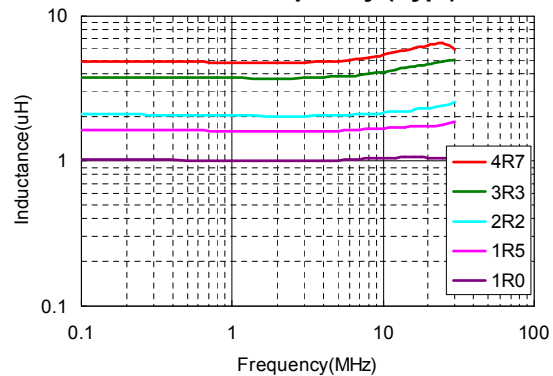
Dimensions



Inductance vs. DC bias current (Typ.)



Inductance vs. Frequency (Typ.)



Inductance characteristics are typical values and are not guaranteed.

Caution ; Do not use products beyond the rated current as this may create excessive heat causing equipment damage, open circuit and burn.

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Multilayer Power Inductors for DC/DC converter

KSLI-201610AG Series

Halogen Free

RoHS compliant

Description

The KSLI-201610AG series is a multilayer power inductor optimized for 1-4MHz switching miniaturized DC/DC converters.

Features

- (1) Small size (2.0 x 1.6 mm² foot print, 1.0 mm max height)
- (2) Large rated current (1900mA (R75), ΔT=40deg.C)
- (3) Low DC resistance (80 mΩ (R75))
- (4) Full face shield structure
- (5) Green-products (RoHS compliant, Halogen Free)

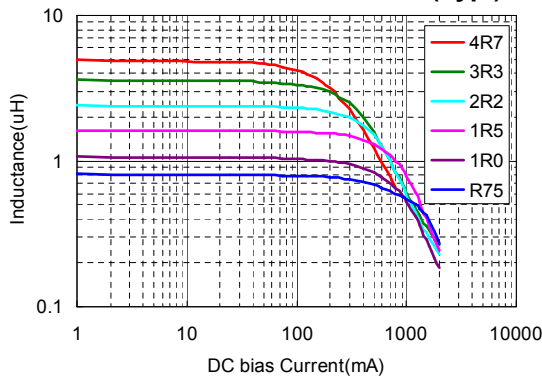
Basic Characteristics

Part Number	Inductance(μH) (Tolerance +/-20%)	DC Resistance(mΩ) (Tolerance +/-25%)	Rated Current (mA)		
			Idc1(Saturation)		Idc2(ΔT=40deg.C)
			30%	50%	
KSLI-201610AG-4R7	4.7	200	160	260	1300
KSLI-201610AG-3R3	3.3	180	300	425	1300
KSLI-201610AG-2R2	2.2	140	440	640	1500
KSLI-201610AG-1R5	1.5	120	650	975	1600
KSLI-201610AG-1R0	1.0	90	625	975	1900
KSLI-201610AG-R75	0.75	80	900	1550	1900

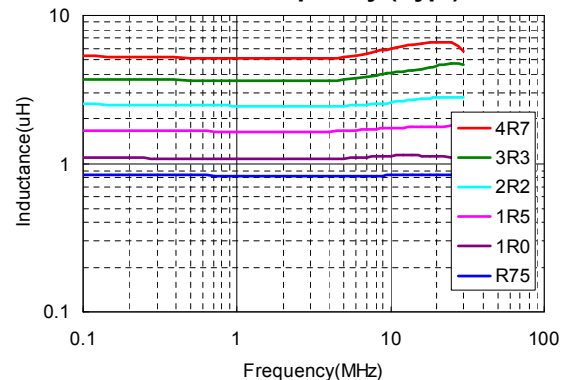
Idc1: DC current at which the inductance drops 30% or 50% from its value without current

Idc2: DC current causes temperature rise of 40 deg.C from 25 deg.C ambient.

Inductance vs. DC bias current (Typ.)



Inductance vs. Frequency (Typ.)



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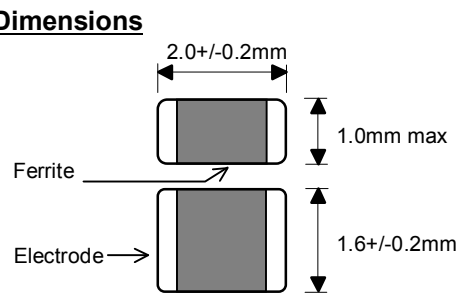
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KSLI-201210AG Series

Halogen Free

RoHS compliant

Description

The KSLI-201210AG series is a multilayer power inductor optimized for 1-4MHz switching miniaturized DC/DC converters.

Features

- (1) Small size (2.0 x 1.25 mm² foot print, 1.0 mm max height)
- (2) Large rated current (1500mA (1R0), ΔT=40deg.C)
- (3) Low DC resistance (120 mΩ (1R0))
- (4) Full face shield structure
- (5) Green-products (RoHS compliant, Halogen Free)

Basic Characteristics

Part Number	Inductance(μH) (Tolerance +/-20%)	DC Resistance(mΩ) (Tolerance +/-25%)	Rated Current (mA)		
			Idc1(Saturation)		Idc2(ΔT=40deg.C)
			30%	50%	
KSLI-201210AG-4R7	4.7	270	100	180	1100
KSLI-201210AG-3R3	3.3	230	200	320	1200
KSLI-201210AG-2R2	2.2	190	420	640	1300
KSLI-201210AG-1R5	1.5	170	700	1000	1400
KSLI-201210AG-1R0	1.0	120	750	1150	1500

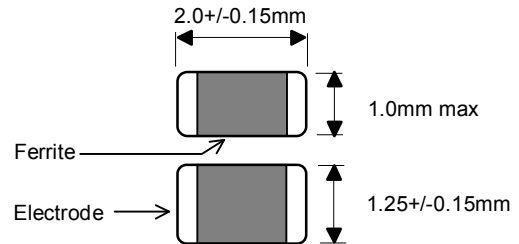
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Idc2: DC current causes temperature rise of 40 deg.C from 25 deg.C ambient.

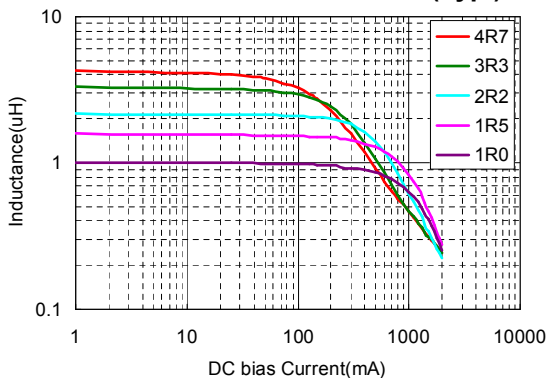
Applications

DC/DC converters for Cell phones and other portable instruments.

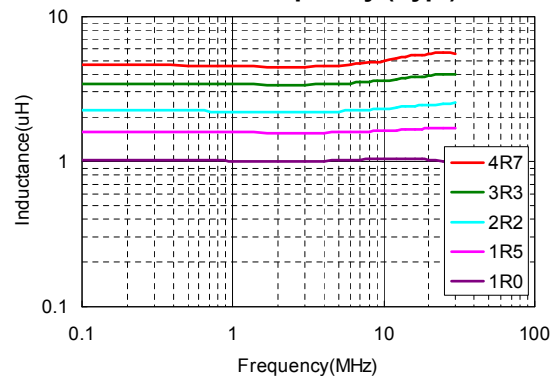
Dimensions



Inductance vs. DC bias current (Typ.)



Inductance vs. Frequency (Typ.)



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