

SMD High Current Inductors

Fixed Inductor for Surface Mounting

SPH10040

Construction

- Metal alloy powder core
- Shielded construction

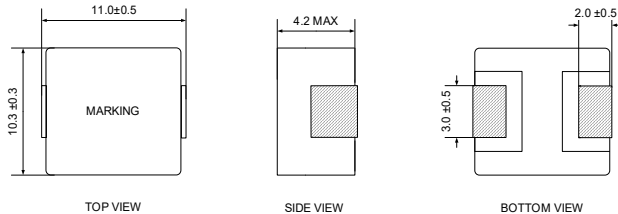
Features

- Operating temperature -40 ~ +125°C
- Qualified to AEC-Q200
- Solder reflow temperature 260°C peak
- Low buzz noise
- High saturation current
- Suitable for lead-free reflow soldering

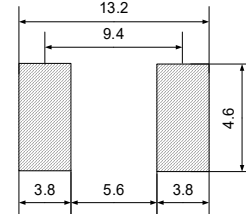
Applications

- Automotive / PDA / Notebook systems
- DC/DC converters
- Low profile, high current power supplies

Dimensions(Unit:mm)



Recommended Land Pattern(Unit:mm)



Electrical Characteristics

Ordering code	Inductance range (μH)	DCR(mΩ,MAX)	SRF(TYP,MHz)	Isat*1(A,TYP)	Irms*2(A,TYP)	Marking
SPH10040-R15M	0.15±20%	0.65	179.0	75.0	45.0	R15
SPH10040-R22M	0.22±20%	1.0	155.0	65.0	35.0	R22
SPH10040-R30M	0.30±20%	1.1	101.0	45.0	33.0	R30
SPH10040-R36M	0.36±20%	1.2	99.0	42.0	30.0	R36
SPH10040-R47M	0.47±20%	1.7	80.0	40.0	29.0	R47
SPH10040-R56M	0.56±20%	2.0	65.0	33.0	25.0	R56
SPH10040-R68M	0.68±20%	2.4	59.0	30.0	23.0	R68
SPH10040-R80M	0.80±20%	2.7	57.0	29.0	22.0	R80
SPH10040-1R0M	1.0±20%	3.3	48.0	28.0	19.0	1R0
SPH10040-1R5M	1.5±20%	4.2	41.5	24.0	16.0	1R5
SPH10040-2R2M	2.2±20%	7.0	30.0	16.5	12.0	2R2
SPH10040-3R3M	3.3±20%	12.0	21.0	16.0	11.0	3R3
SPH10040-4R7M	4.7±20%	20.0	20.0	13.0	9.0	4R7
SPH10040-5R6M	5.6±20%	22.0	15.0	12.0	8.5	5R6
SPH10040-6R8M	6.8±20%	25.0	13.0	11.5	8.3	6R8
SPH10040-8R2M	8.2±20%	27.0	12.5	9.0	8.0	8R2
SPH10040-100M	10±20%	30.0	12.0	8.5	7.8	100
SPH10040-150M	15±20%	45.0	8.0	7.0	6.5	150
SPH10040-220M	22±20%	66.0	7.5	5.5	5.0	220
SPH10040-330M	33±20%	92.0	5.0	4.8	4.4	330
SPH10040-470M	47±20%	145.0	4.5	3.5	3.3	470
SPH10040-680M	68±20%	195.0	3.8	3.0	2.5	680
SPH10040-101M	100±20%	340.0	3.4	2.3	2.0	101

※Test Equipment

*Inductance : Agilent 4284A (100kHz, 1.0V)

*DCR Meter : ABM3245 (20mΩ~2MΩ)

*Bias Current : Agilent 4284A + Agilent 42841A

*SRF : Agilent HP8753ES

*Specifications subject to change without notice. Please check our website for latest information.

*Notes

*1.Isat : DC current at which the inductance drops approximate 30%

*2.Irms : DC current that will cause an approximate ΔT of 40 °C

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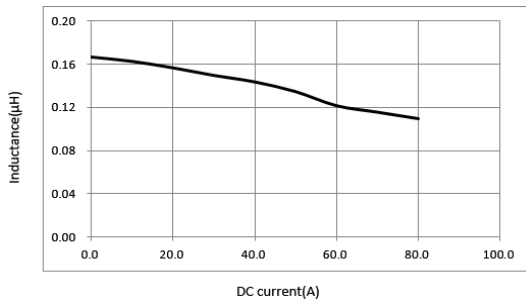
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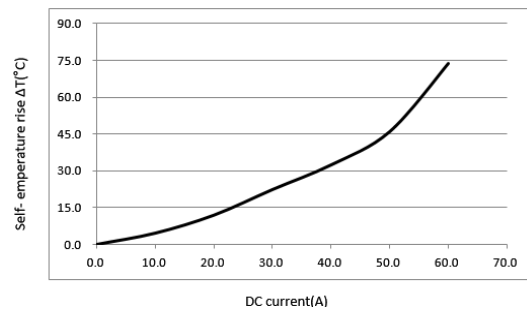
SPH10040

*SPH10040-R15M

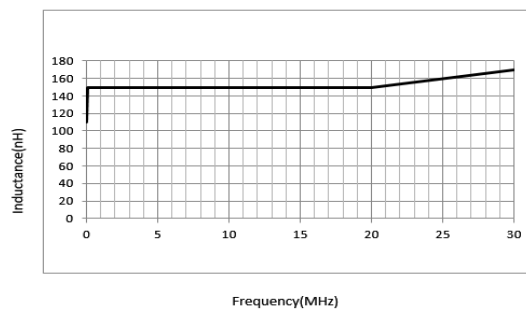
Inductance vs DC current



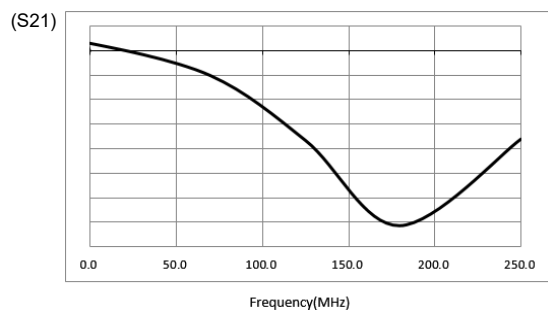
DC current vs Temperature



Inductance vs Frequency

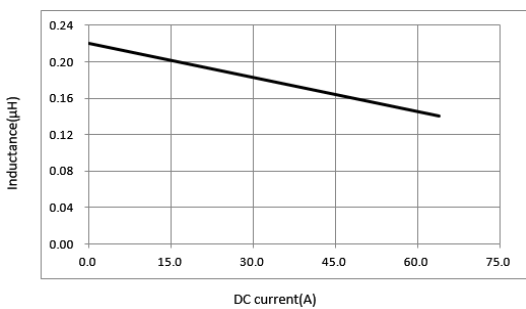


SRF(Self Resonance Frequency)

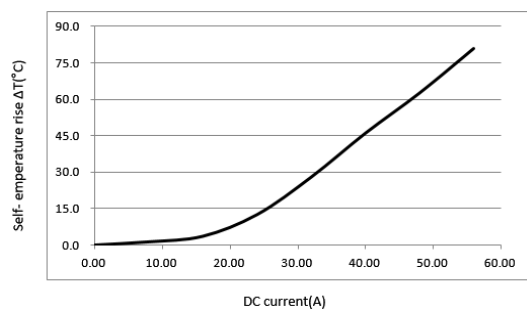


*SPH10040-R22M

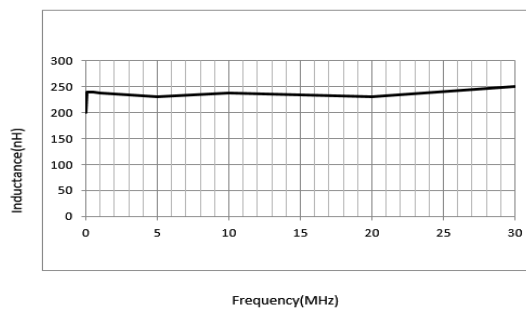
Inductance vs DC current



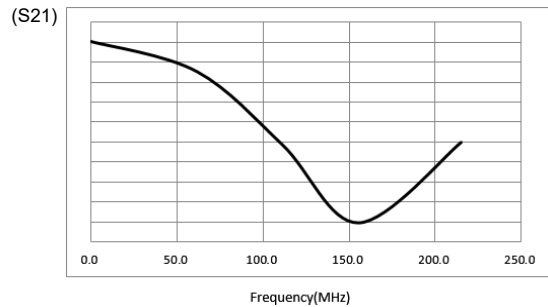
DC current vs Temperature



Inductance vs Frequency



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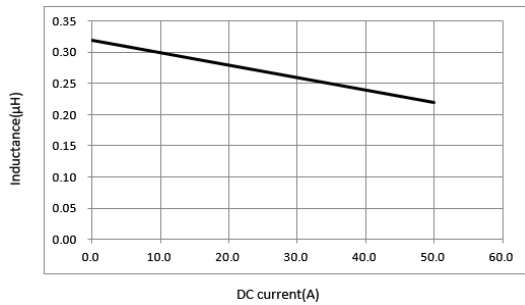
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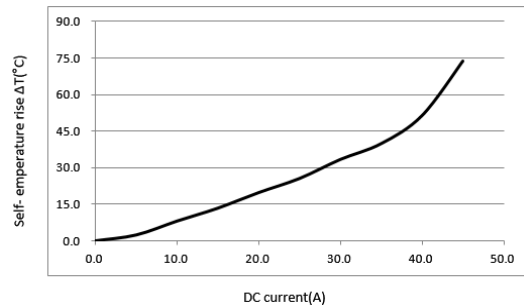
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*SPH10040-R30M

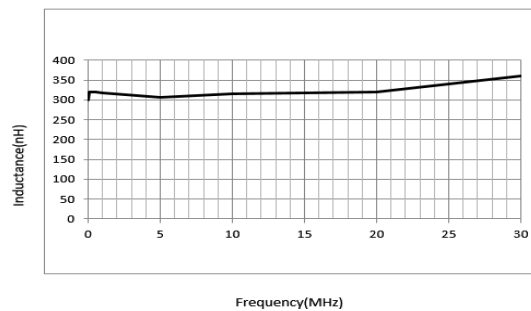
Inductance vs DC current



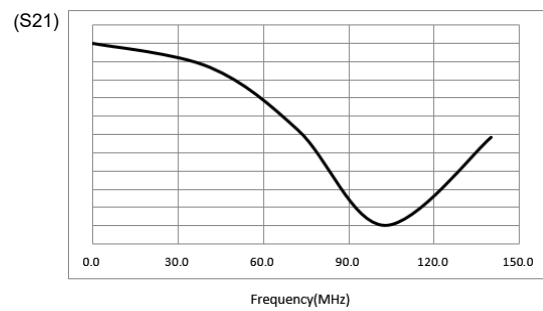
DC current vs Temperature



Inductance vs Frequency

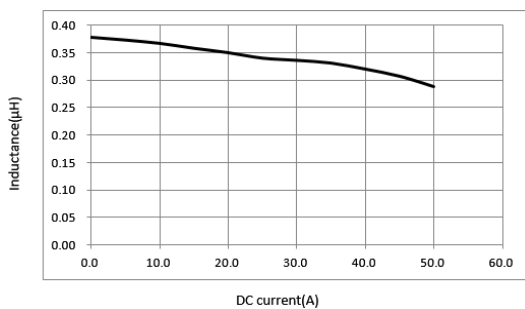


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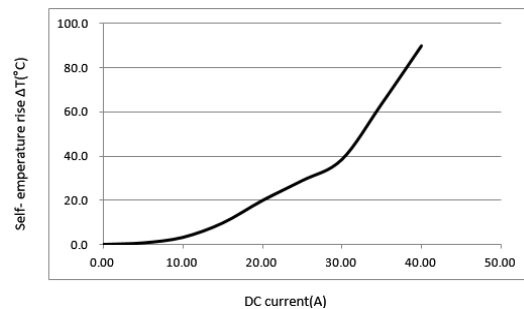


*SPH10040-R36M

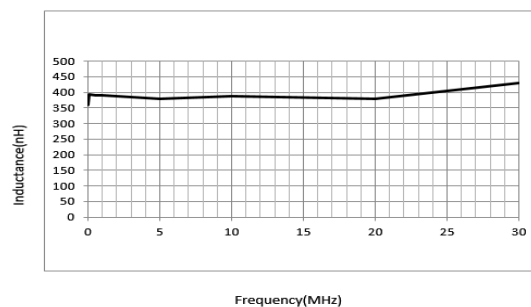
Inductance vs DC current



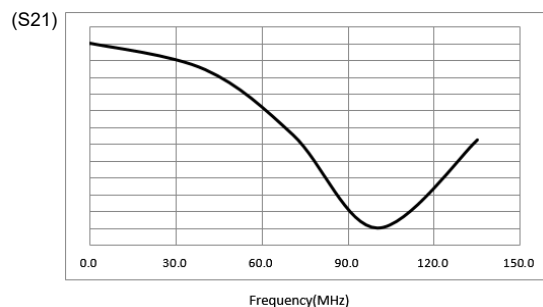
DC current vs Temperature



Inductance vs Frequency



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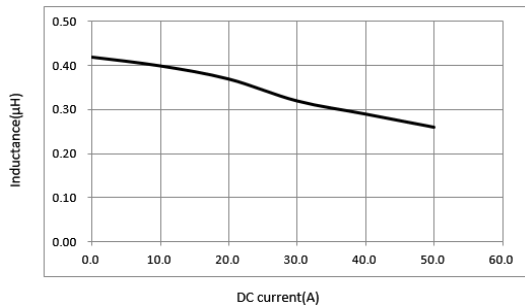
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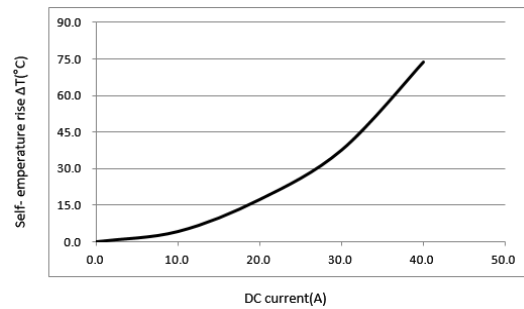
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*SPH10040-R47M

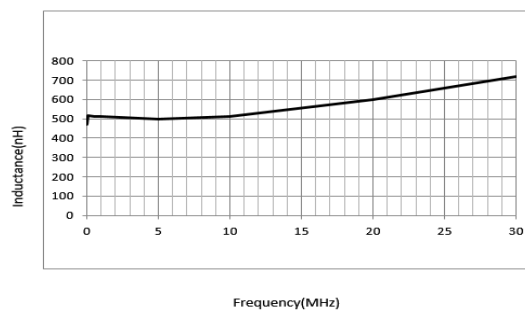
Inductance vs DC current



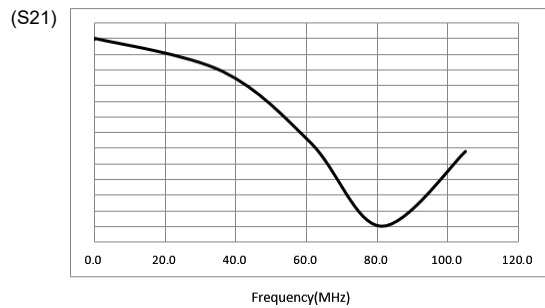
DC current vs Temperature



Inductance vs Frequency

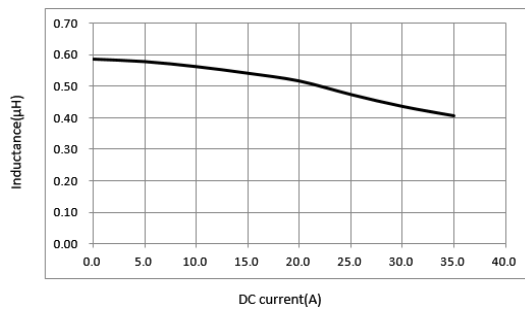


SRF(Self Resonance Frequency)

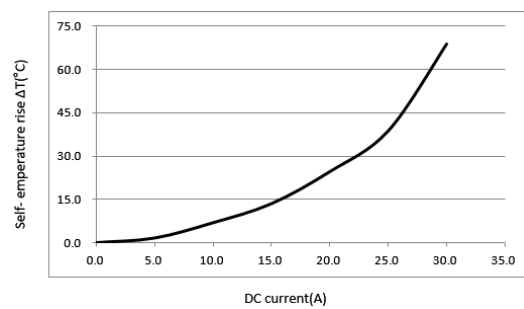


*SPH10040-R56M

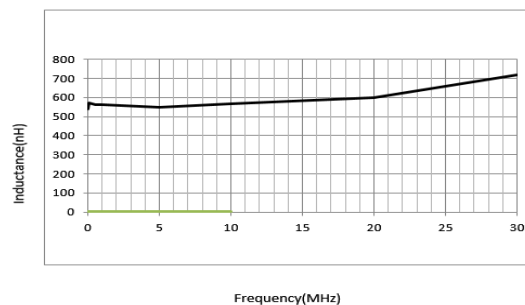
Inductance vs DC current



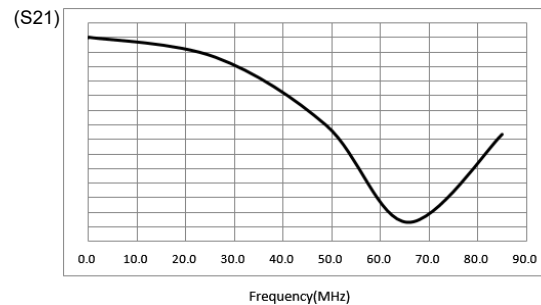
DC current vs Temperature



Inductance vs Frequency



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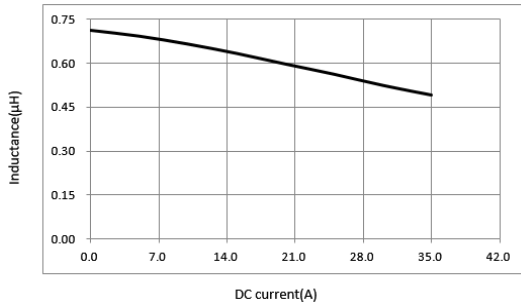
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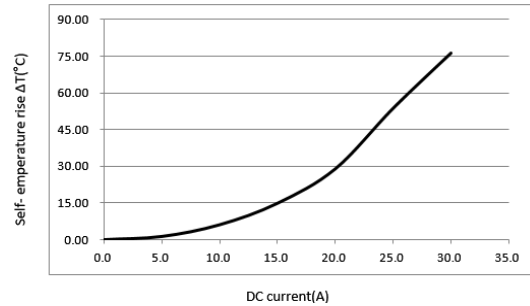
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*SPH10040-R68M

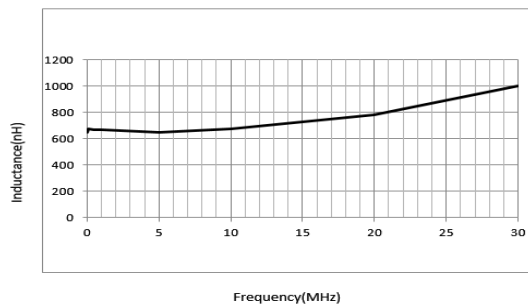
Inductance vs DC current



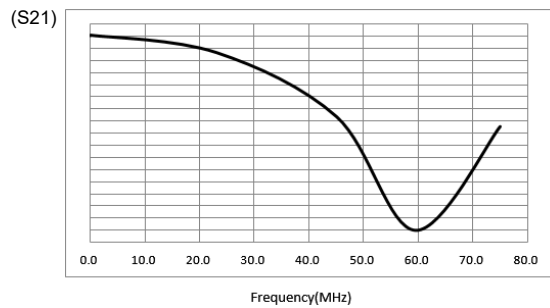
DC current vs Temperature



Inductance vs Frequency

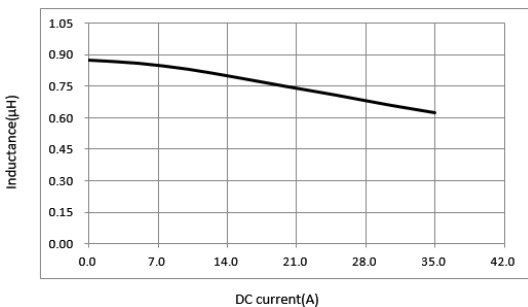


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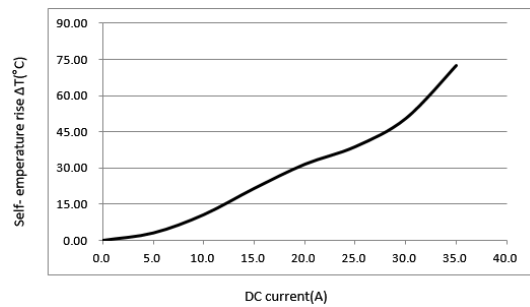


*SPH10040-R80M

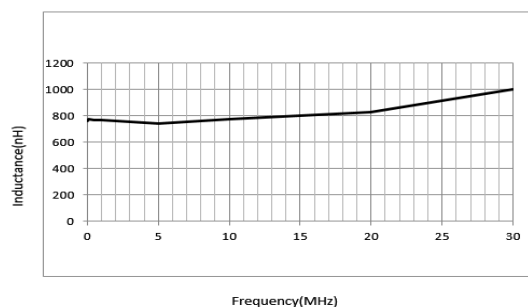
Inductance vs DC current



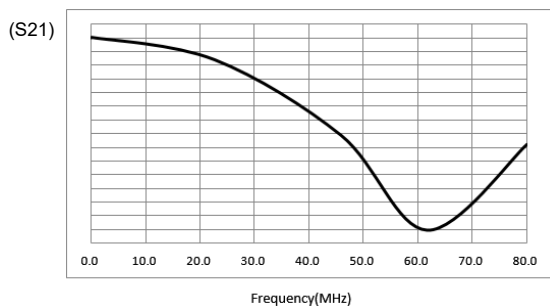
DC current vs Temperature



Inductance vs Frequency



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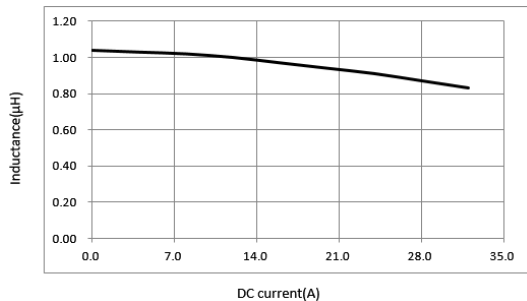
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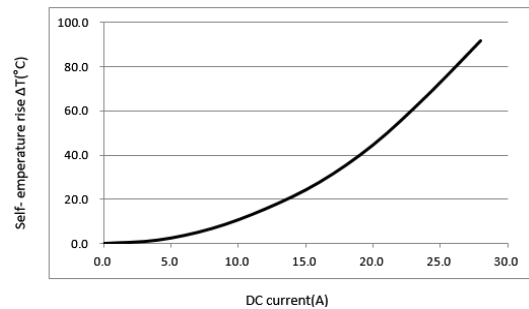
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*SPH10040-1R0M

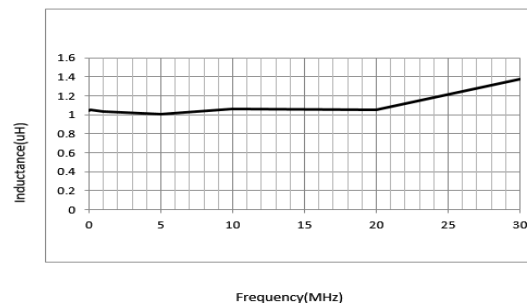
Inductance vs DC current



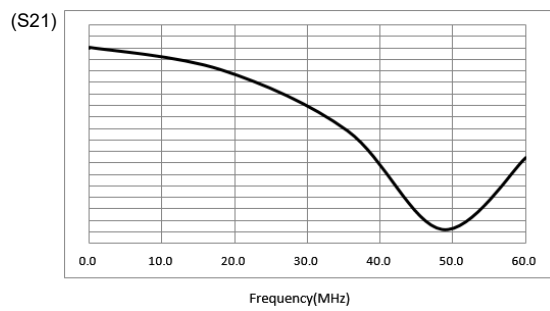
DC current vs Temperature



Inductance vs Frequency

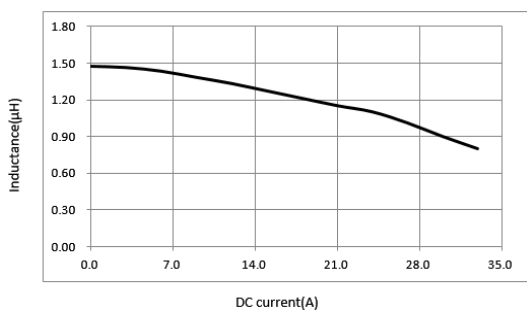


SRF(Self Resonance Frequency)

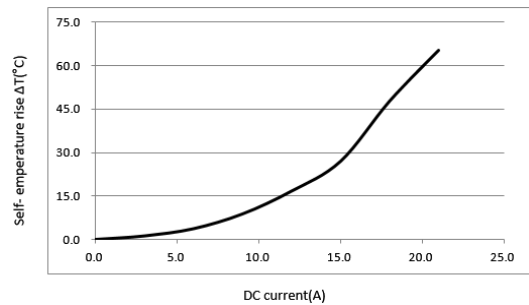


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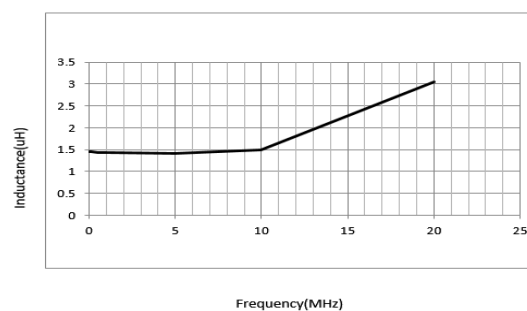
Inductance vs DC current



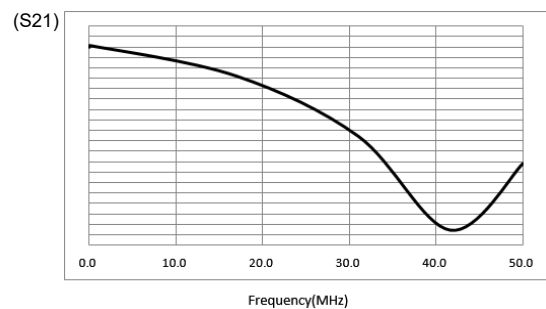
DC current vs Temperature



Inductance vs Frequency



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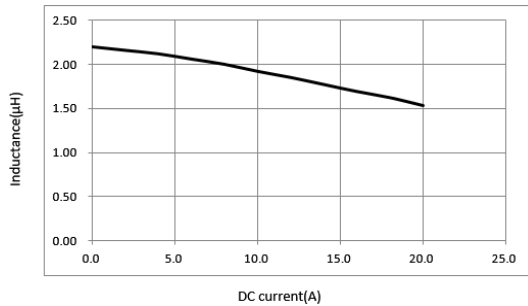
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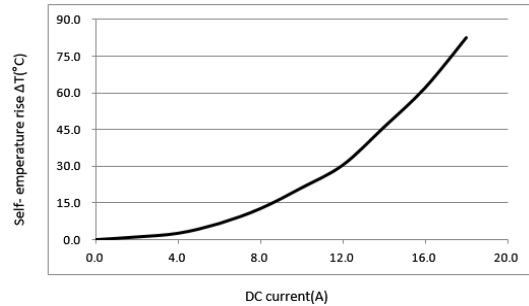
SPH10040

*SPH10040-2R2M

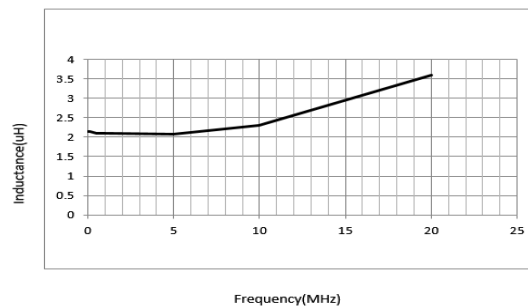
Inductance vs DC current



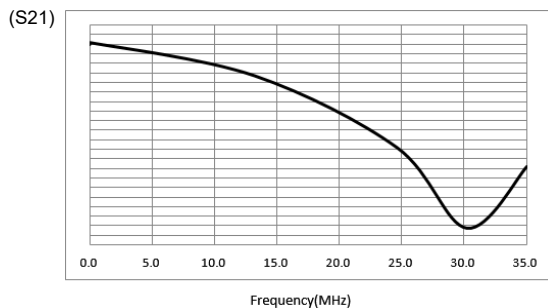
DC current vs Temperature



Inductance vs Frequency

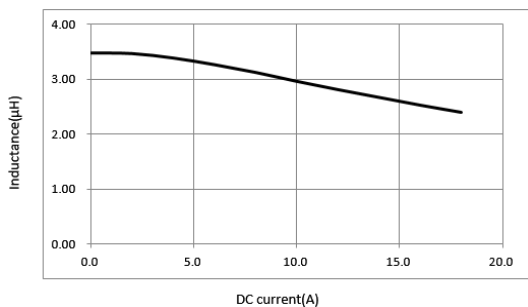


SRF(Self Resonance Frequency)

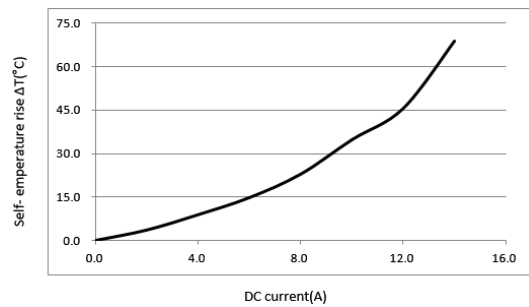


*SPH10040-3R3M

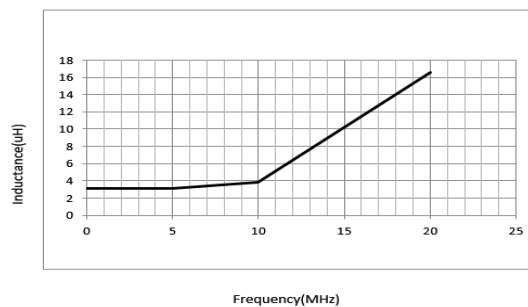
Inductance vs DC current



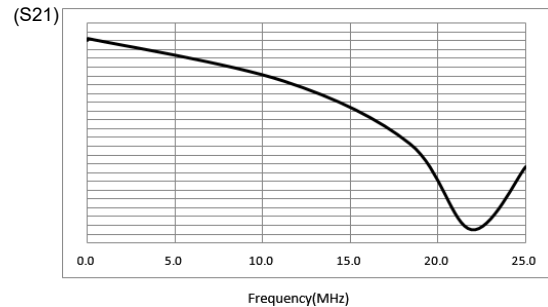
DC current vs Temperature



Inductance vs Frequency



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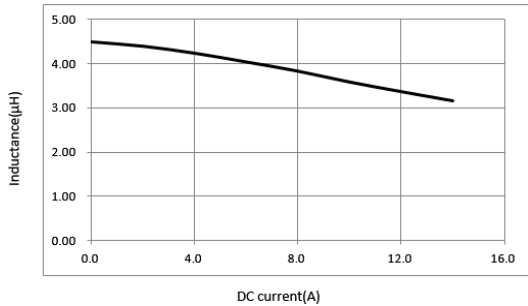
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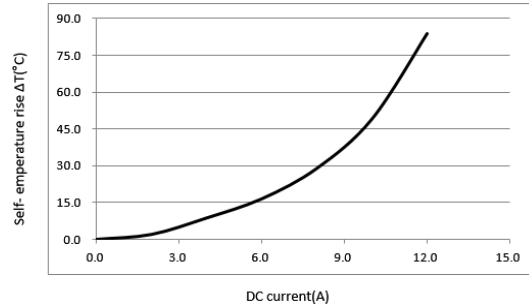
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*SPH10040-4R7M

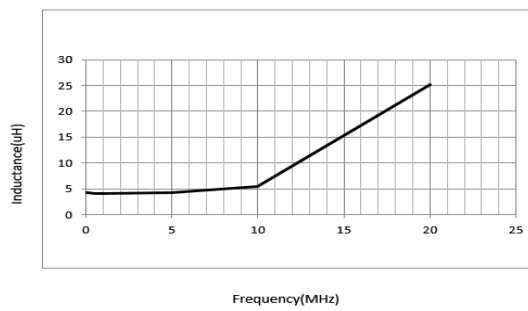
Inductance vs DC current



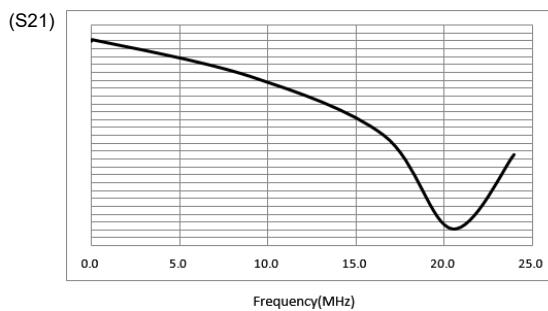
DC current vs Temperature



Inductance vs Frequency

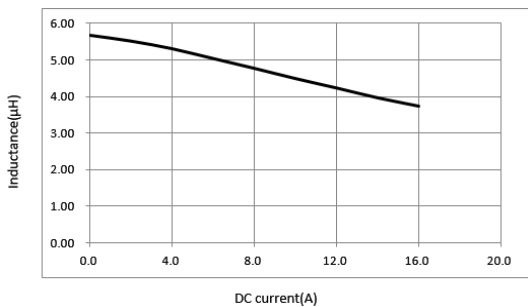


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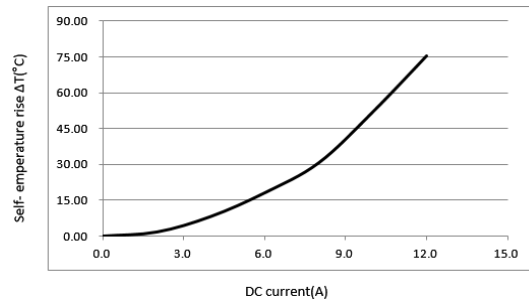


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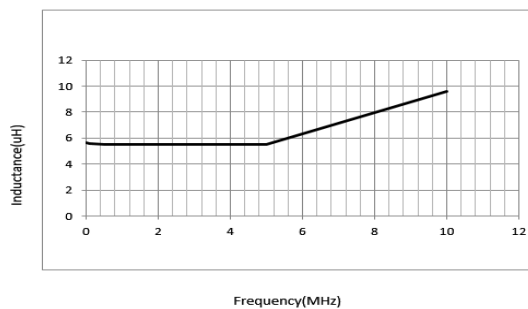
Inductance vs DC current



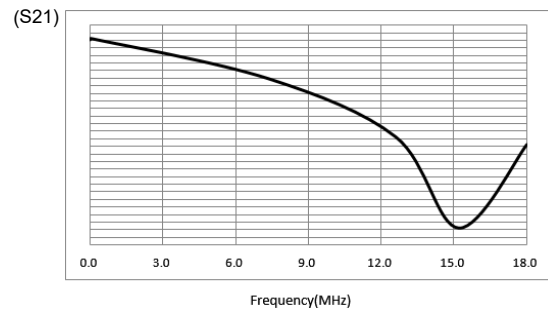
DC current vs Temperature



Inductance vs Frequency



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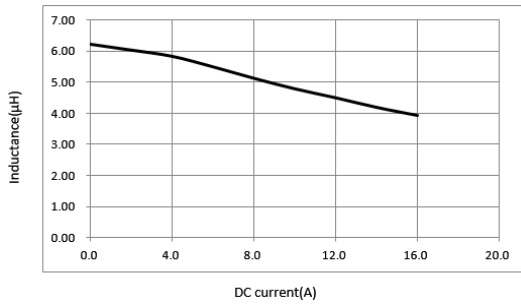
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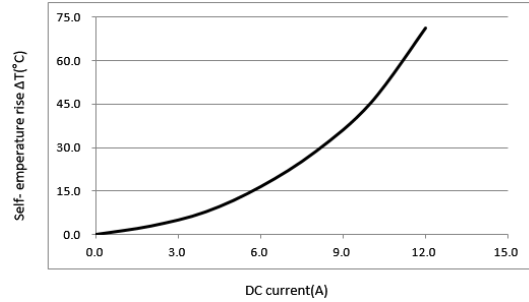
SPH10040

*SPH10040-6R8M

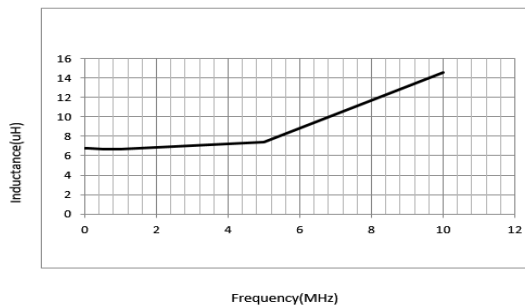
Inductance vs DC current



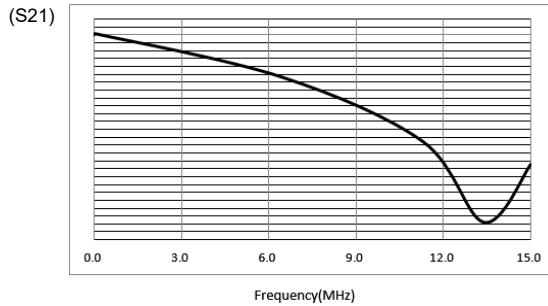
DC current vs Temperature



Inductance vs Frequency

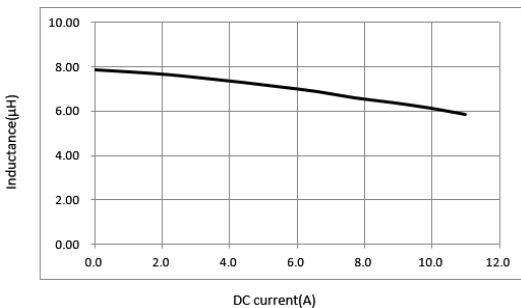


SRF(Self Resonance Frequency)

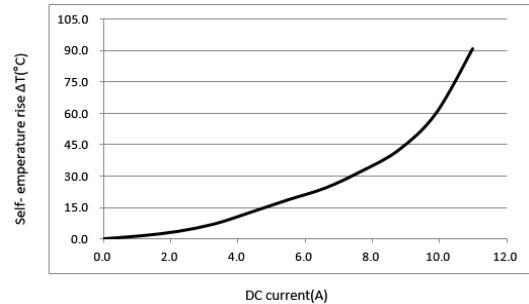


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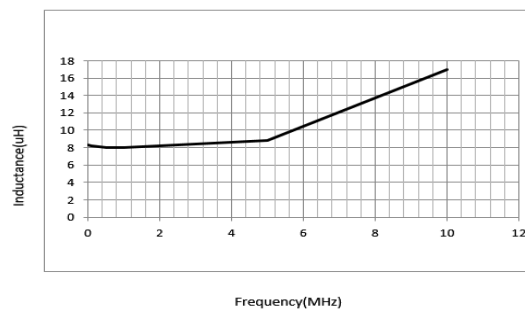
Inductance vs DC current



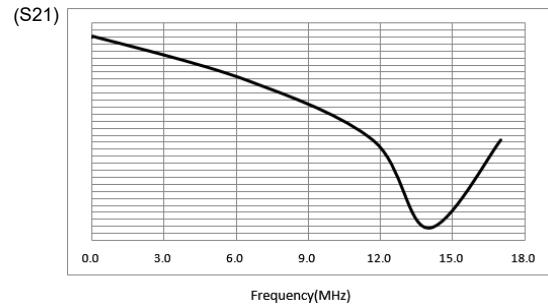
DC current vs Temperature



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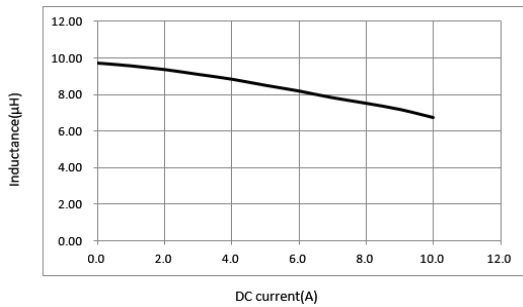
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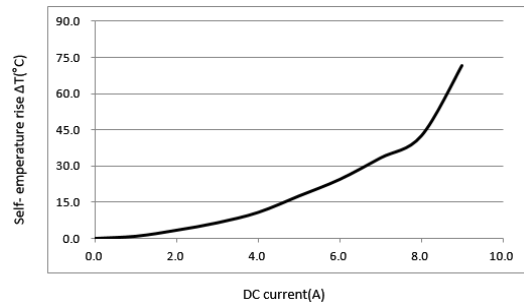
SPH10040

*SPH10040-100M

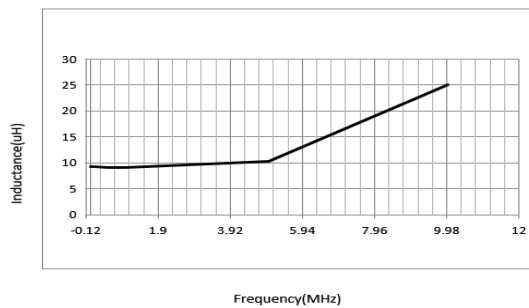
Inductance vs DC current



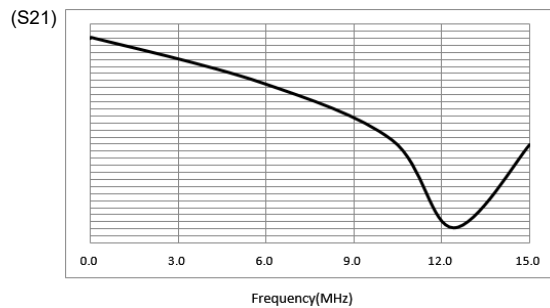
DC current vs Temperature



Inductance vs Frequency

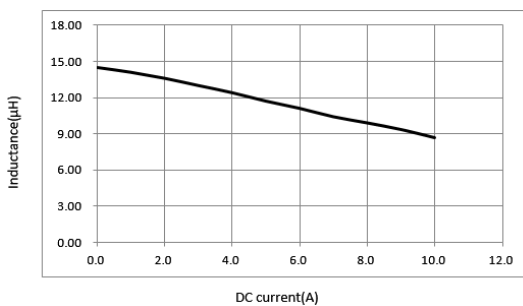


SRF(Self Resonance Frequency)

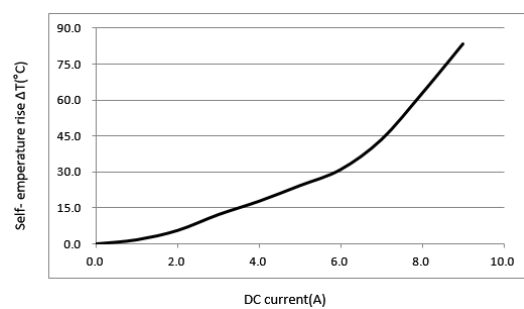


*SPH10040-150M

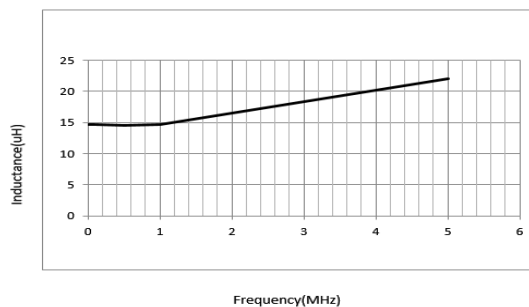
Inductance vs DC current



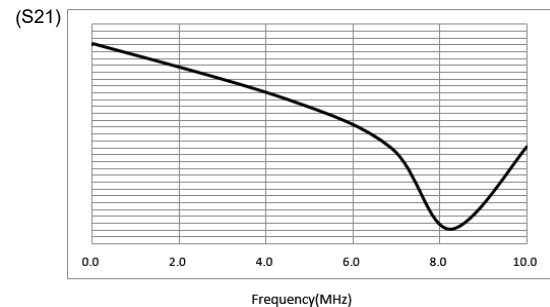
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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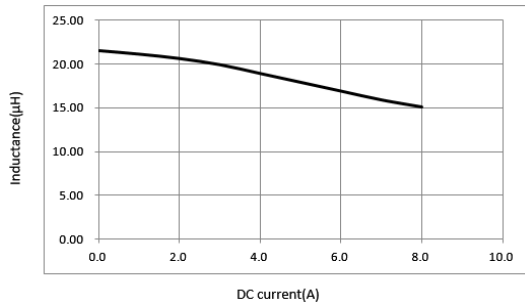
SMD High Current Inductors

Fixed Inductor for Surface Mounting

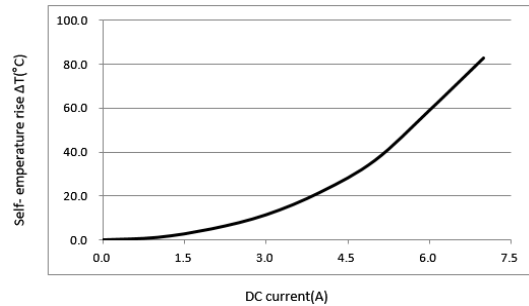
SPH10040

*SPH10040-220M

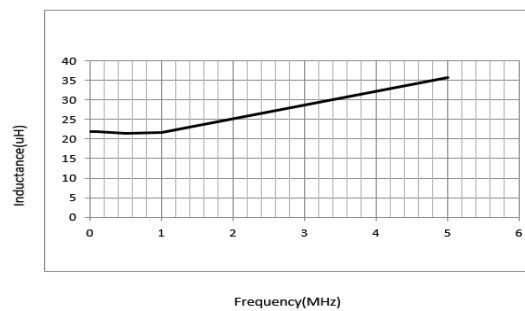
Inductance vs DC current



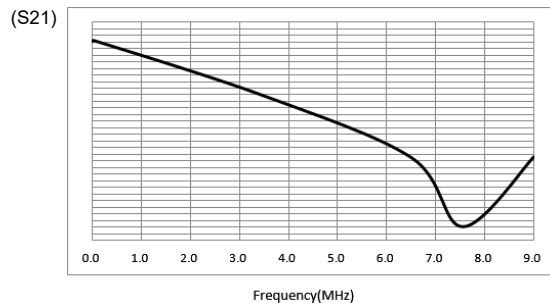
DC current vs Temperature



Inductance vs Frequency

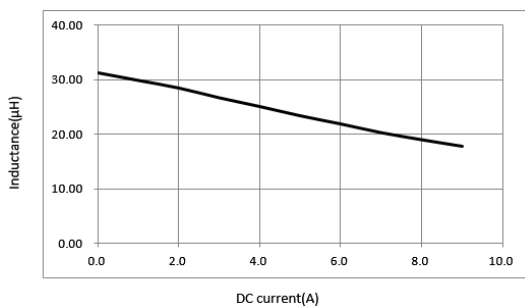


SRF(Self Resonance Frequency)

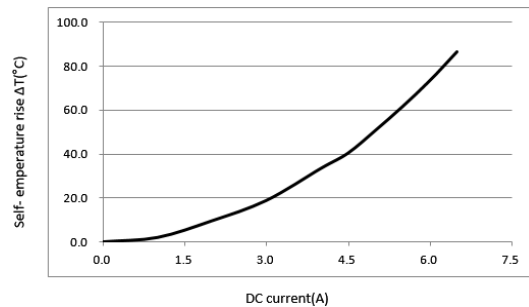


*SPH10040-330M

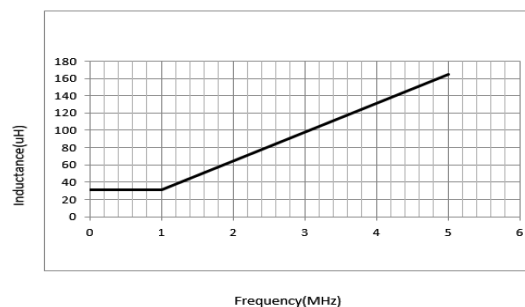
Inductance vs DC current



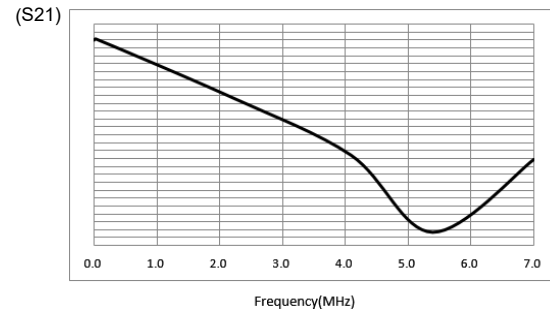
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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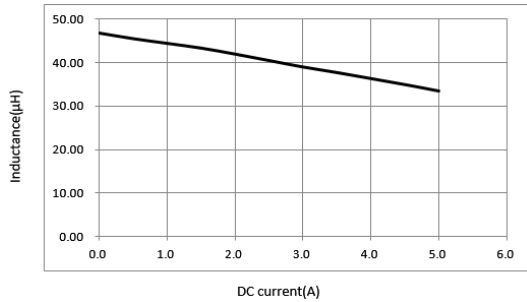
SMD High Current Inductors

Fixed Inductor for Surface Mounting

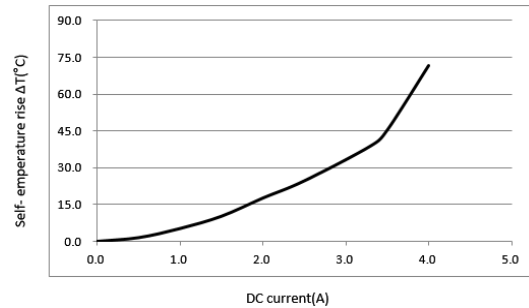
SPH10040

*SPH10040-470M

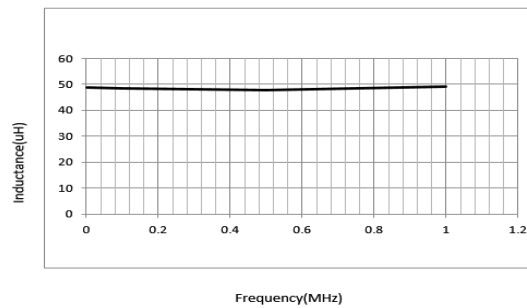
Inductance vs DC current



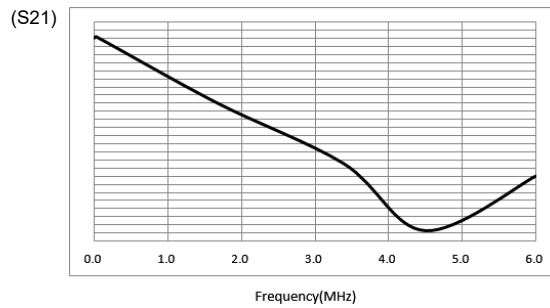
DC current vs Temperature



Inductance vs Frequency

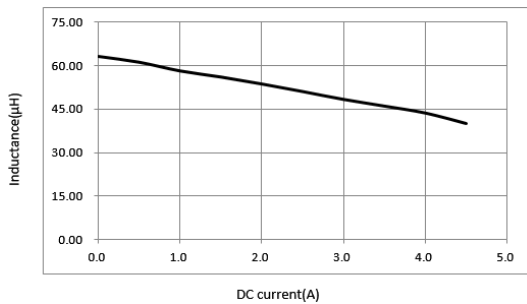


SRF(Self Resonance Frequency)

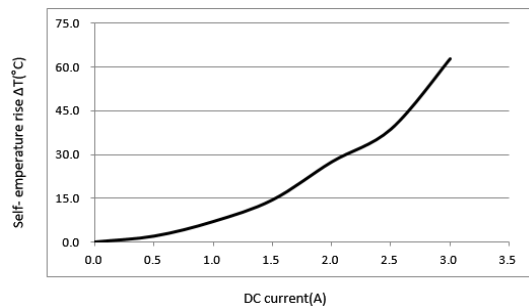


*SPH10040-680M

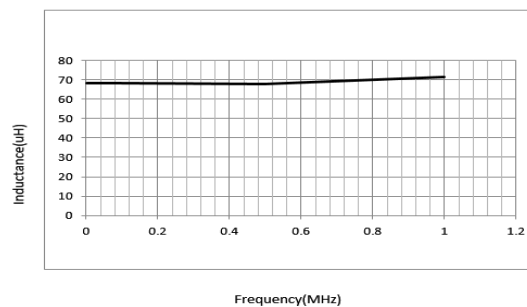
Inductance vs DC current



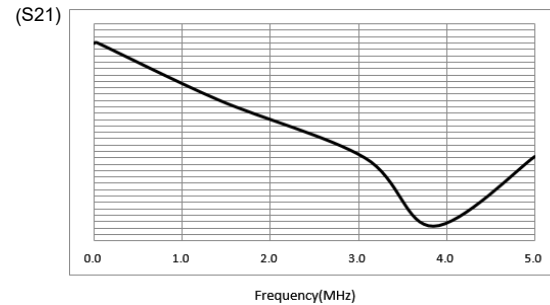
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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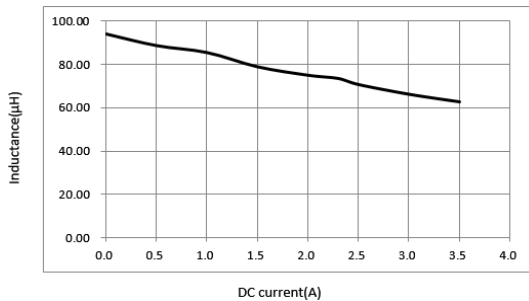
SMD High Current Inductors

Fixed Inductor for Surface Mounting

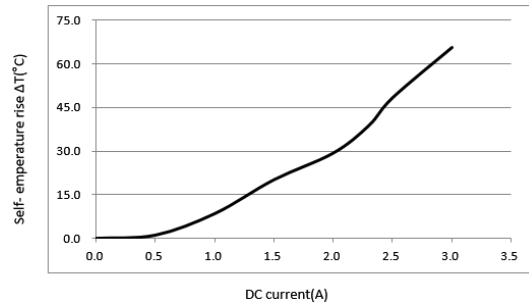
SPH10040

*SPH10040-101M

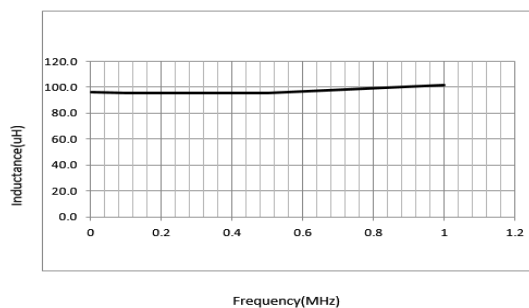
Inductance vs DC current



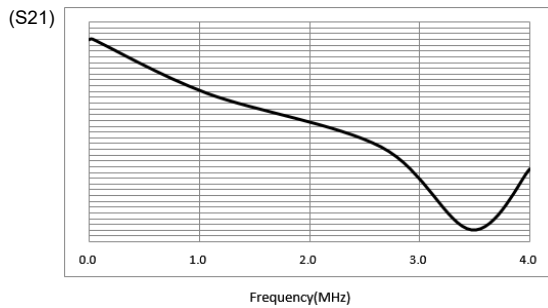
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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