

SMD High Current Inductors

Fixed Inductor for Surface Mounting

SPH10050

Construction

- Metal alloy powder core
- Shielded construction

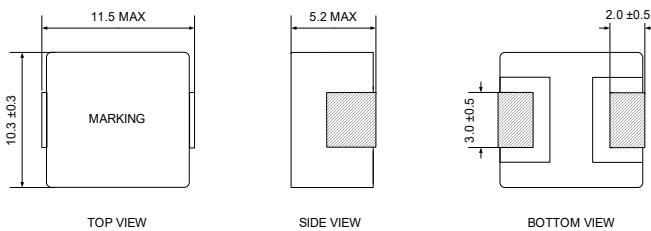
Features

- 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

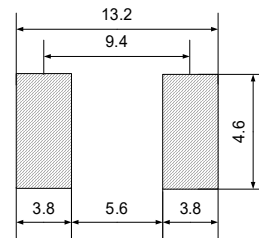
Applications

- 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
SPH10050-R22M	0.22±20%	0.8	138.0	65.0	37.0	R22
SPH10050-1R0M	1.0±20%	3.0	47.0	30.0	23.0	1R0
SPH10050-1R5M	1.5±20%	3.8	34.0	25.0	21.0	1R5
SPH10050-2R2M	2.2±20%	6.0	23.0	19.0	15.0	2R2
SPH10050-3R3M	3.3±20%	10.0	19.0	16.0	13.0	3R3
SPH10050-4R7M	4.7±20%	14.0	17.0	15.0	11.0	4R7
SPH10050-5R6M	5.6±20%	17.0	15.0	14.0	9.5	5R6
SPH10050-6R8M	6.8±20%	18.5	12.0	12.0	9.0	6R8
SPH10050-100M	10±20%	28.0	10.0	10.0	8.0	100
SPH10050-150M	15±20%	42.0	8.5	7.5	6.5	150
SPH10050-220M	22±20%	50.0	6.5	6.0	5.5	220
SPH10050-330M	33±20%	86.0	6.3	5.2	4.8	330
SPH10050-470M	47±20%	127.0	4.5	4.5	3.7	470
SPH10050-101M	100±20%	290.0	3.0	2.8	2.1	101

※Test Equipment

*Inductance : Agilent 4284A (100kHz, 1.0V)
 *DCR Meter : ABM3245 (20mΩ~2MΩ)
 *Bias Current : Agilent 4284A + Agilent 42841A
 *SRF : Agilent HP8753ES

*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

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

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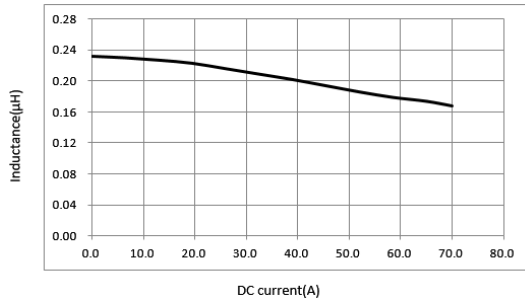
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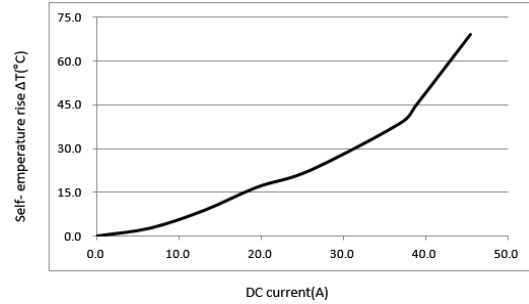
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*SPH10050-R22M

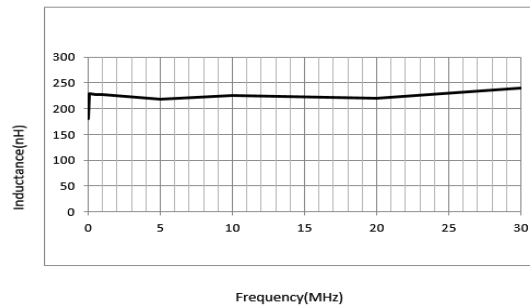
Inductance vs DC current



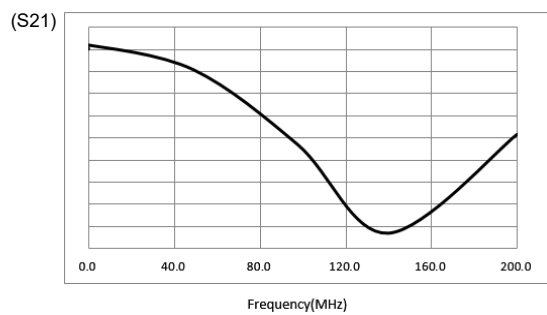
DC current vs Temperature



Inductance vs Frequency

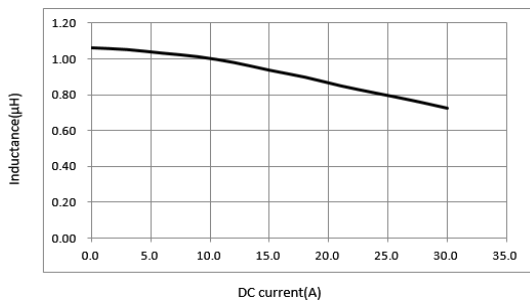


SRF(Self Resonance Frequency)

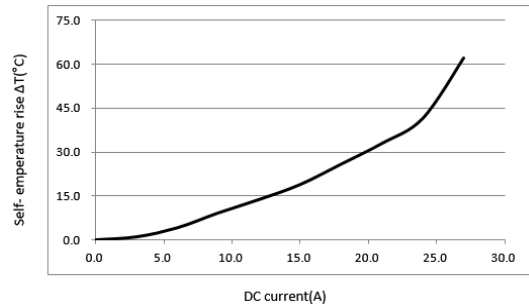


*SPH10050-1R0M

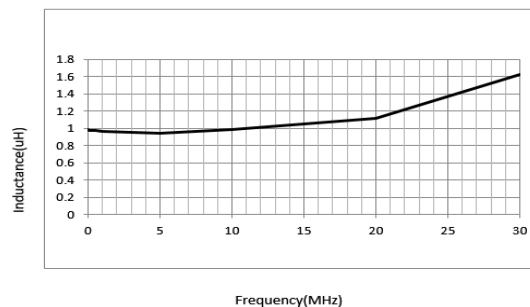
Inductance vs DC current



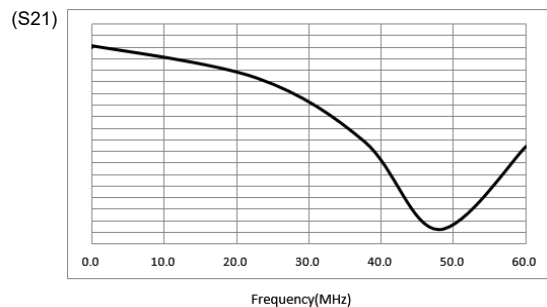
DC current vs Temperature



Inductance vs Frequency



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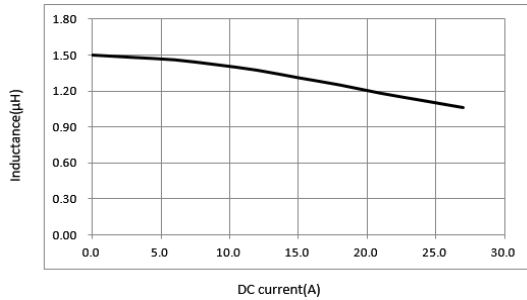
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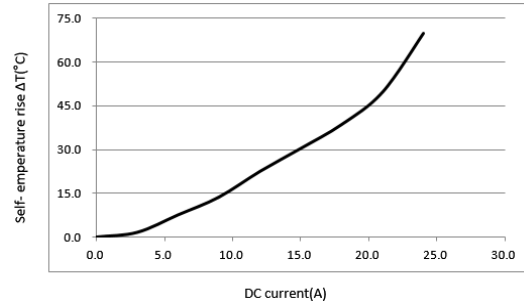
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*SPH10050-1R5M

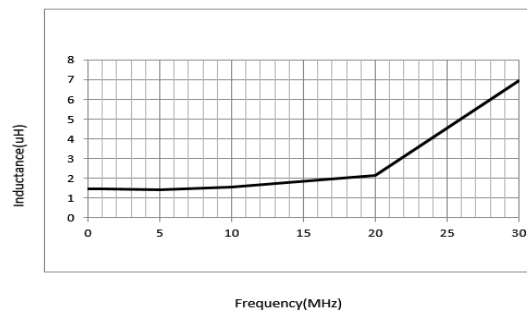
Inductance vs DC current



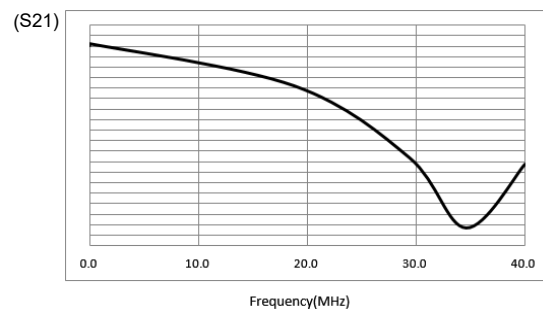
DC current vs Temperature



Inductance vs Frequency

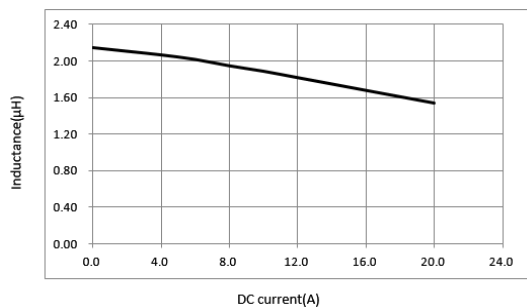


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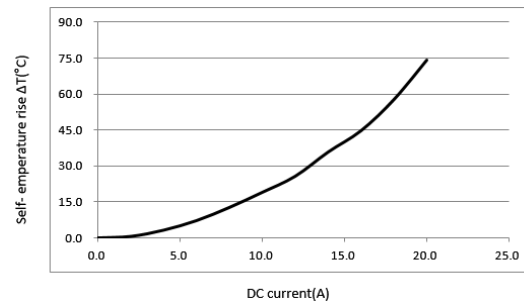


*SPH10050-2R2M

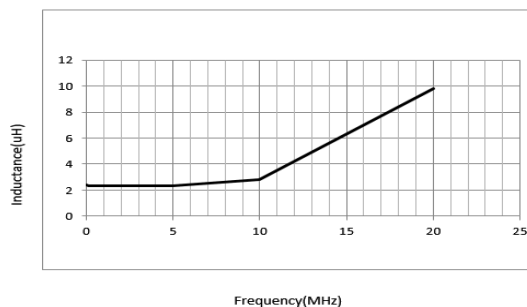
Inductance vs DC current



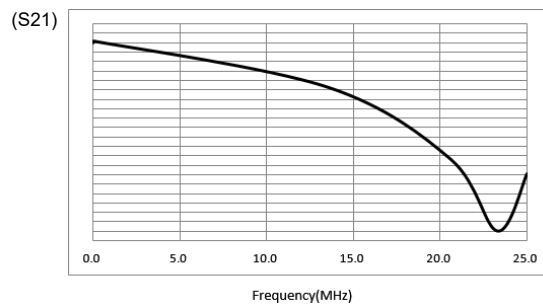
DC current vs Temperature



Inductance vs Frequency



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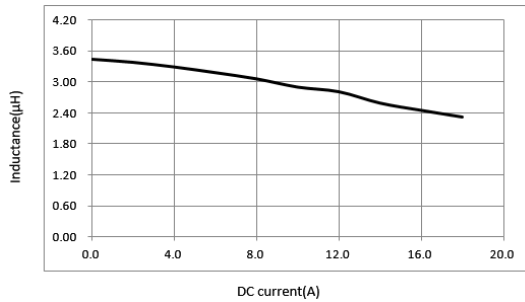
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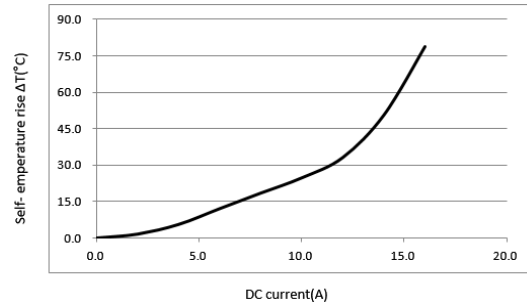
SPH10050

*SPH10050-3R3M

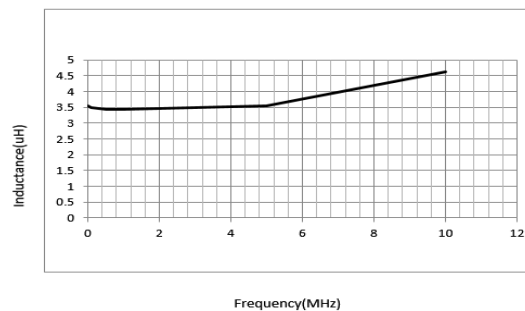
Inductance vs DC current



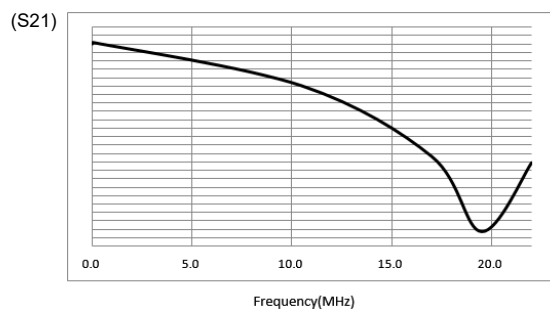
DC current vs Temperature



Inductance vs Frequency

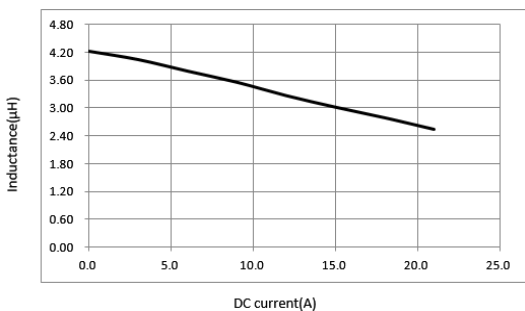


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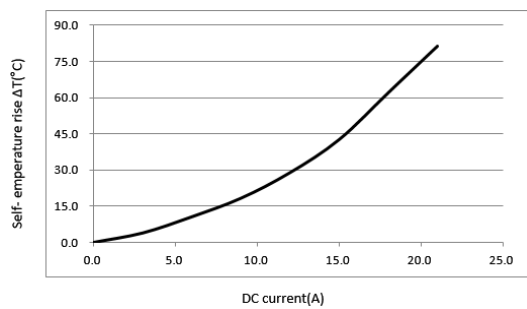


*SPH10050-4R7M

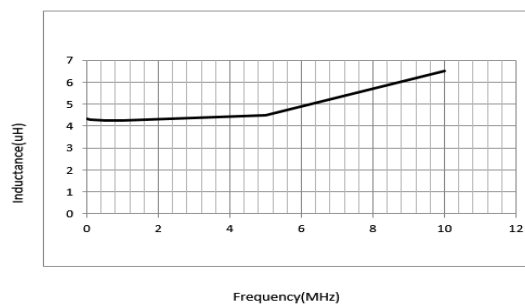
Inductance vs DC current



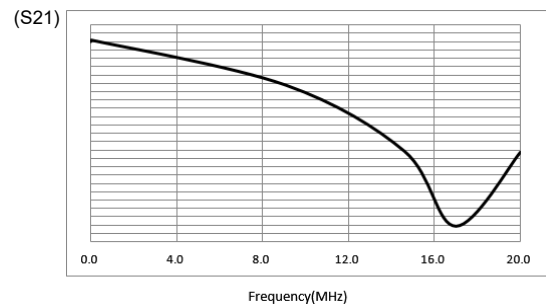
DC current vs Temperature



Inductance vs Frequency



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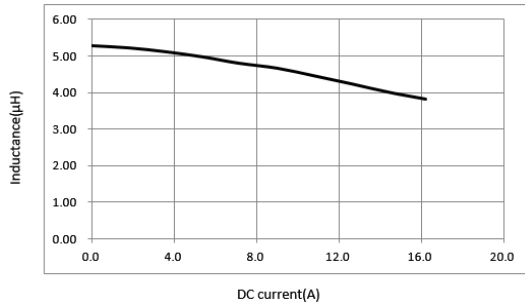
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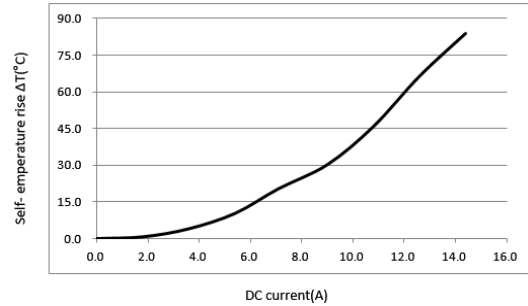
SPH10050

*SPH10050- 5R6M

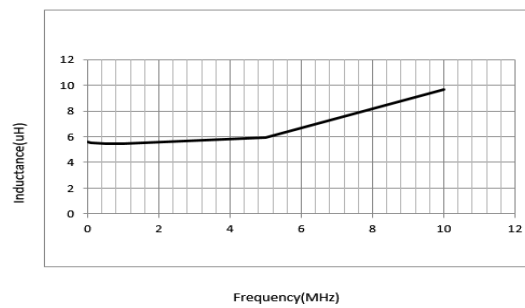
Inductance vs DC current



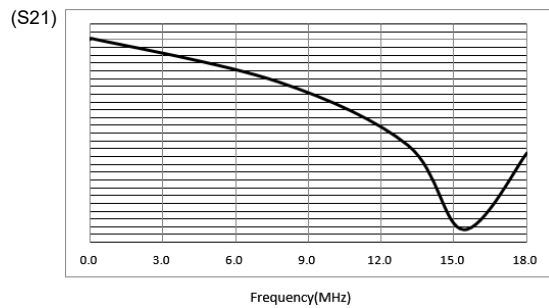
DC current vs Temperature



Inductance vs Frequency

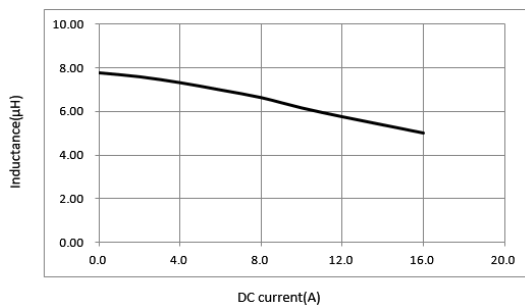


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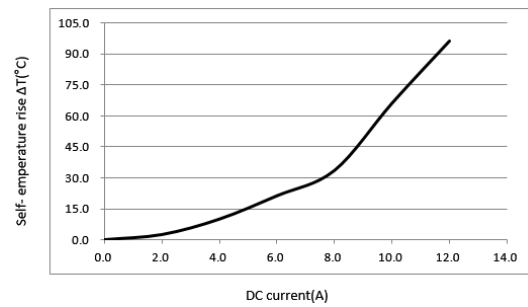


*SPH10050-6R8M

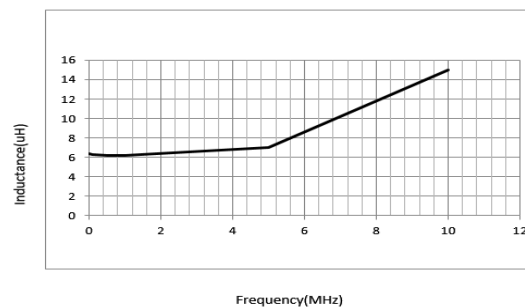
Inductance vs DC current



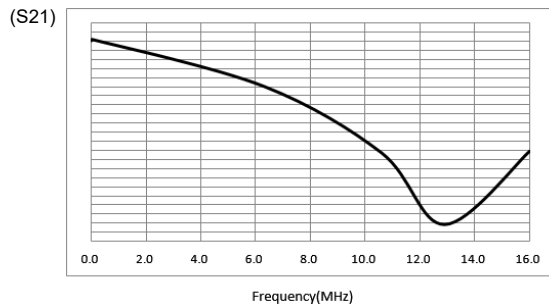
DC current vs Temperature



Inductance vs Frequency



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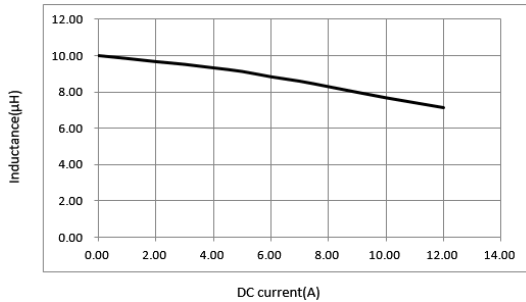
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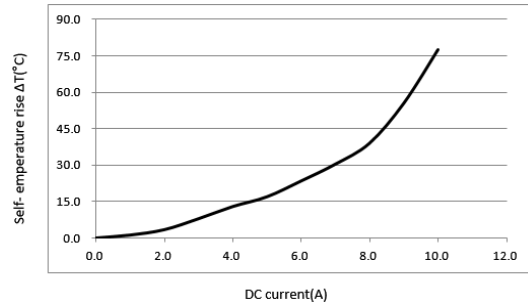
SPH10050

*SPH10050-100M

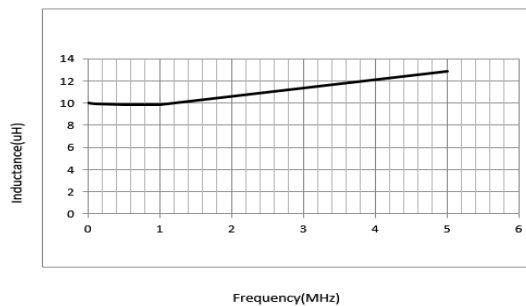
Inductance vs DC current



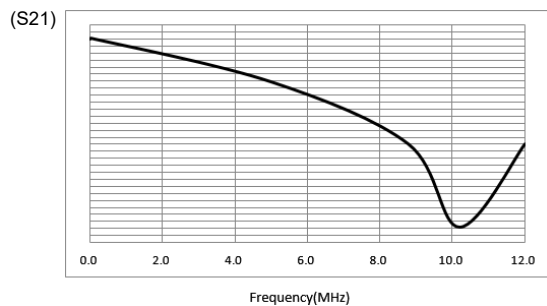
DC current vs Temperature



Inductance vs Frequency

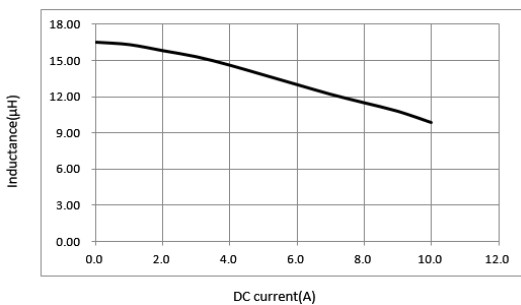


SRF(Self Resonance Frequency)

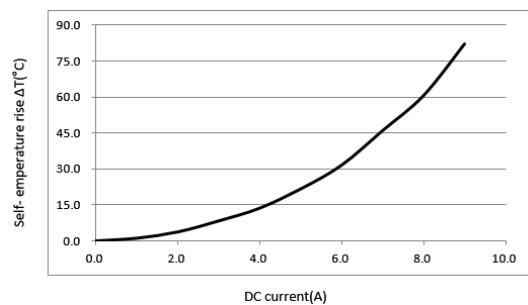


*SPH10050-150M

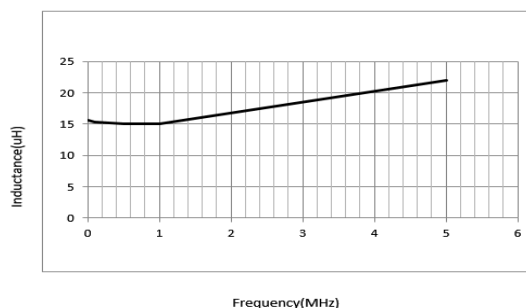
Inductance vs DC current



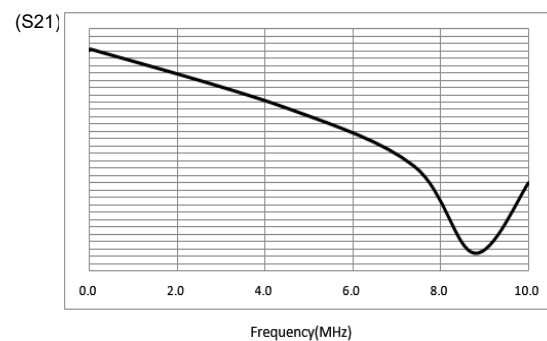
DC current vs Temperature



Inductance vs Frequency



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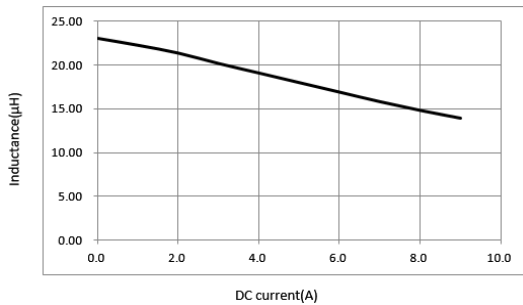
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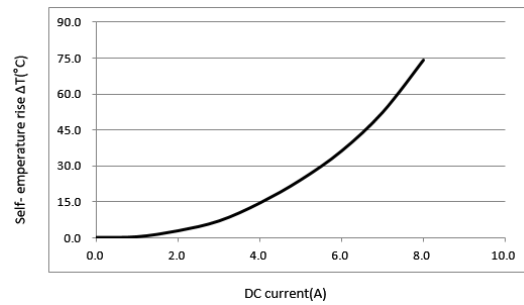
SPH10050

*SPH10050-220M

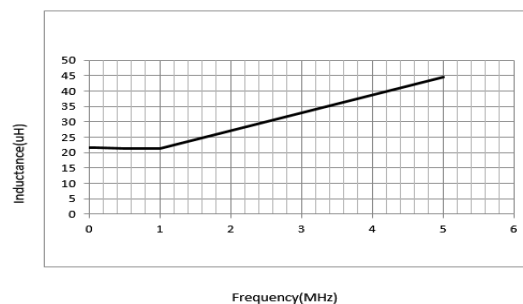
Inductance vs DC current



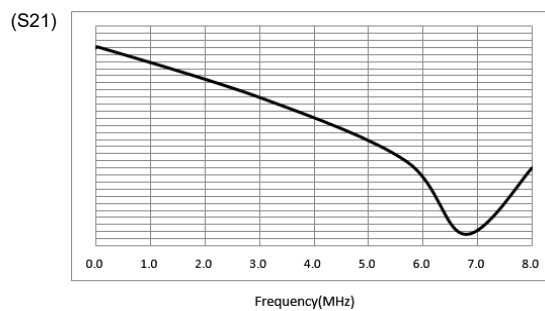
DC current vs Temperature



Inductance vs Frequency

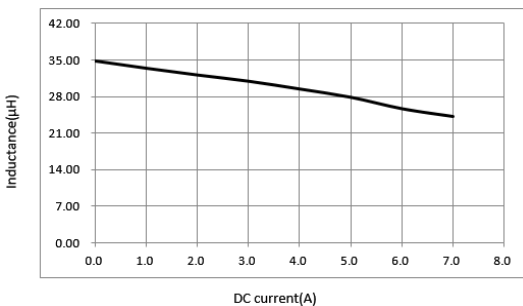


SRF(Self Resonance Frequency)

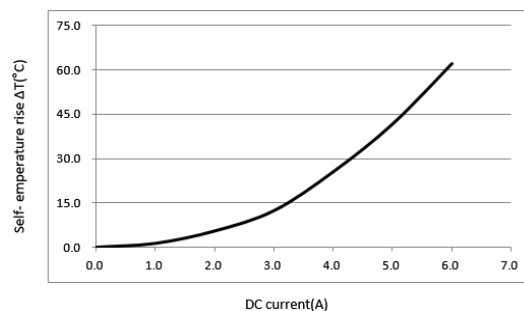


*SPH10050-330M

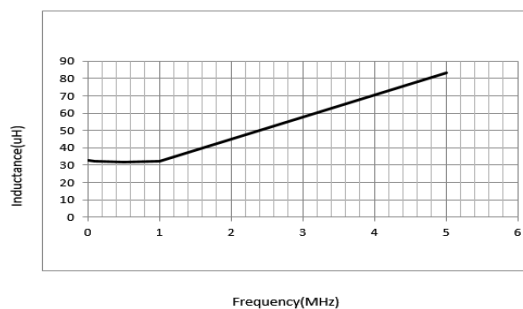
Inductance vs DC current



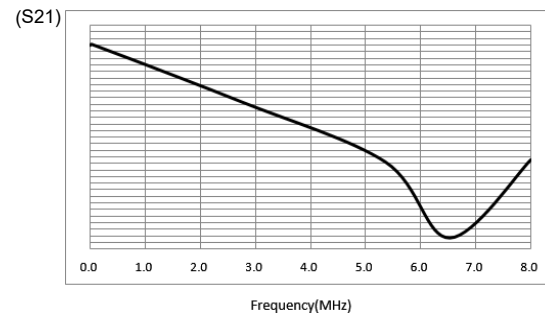
DC current vs Temperature



Inductance vs Frequency



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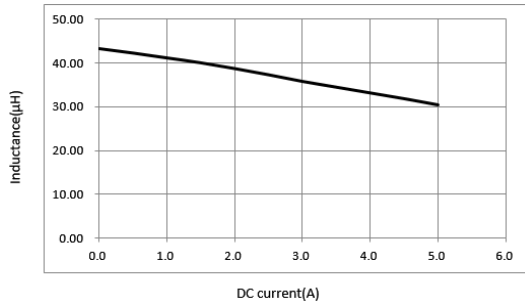
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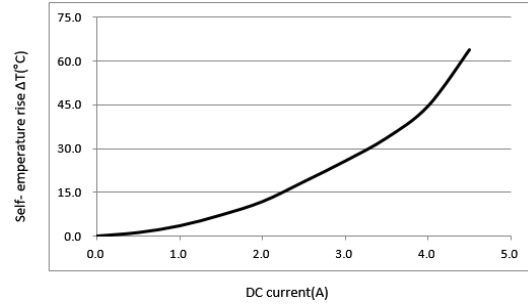
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*SPH10050-470M

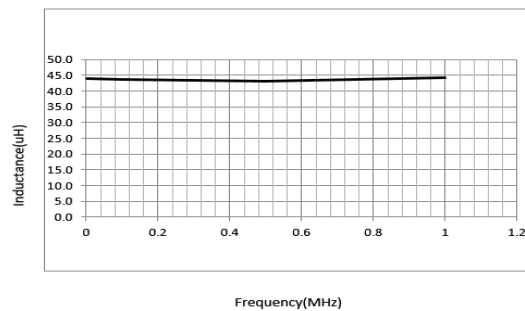
Inductance vs DC current



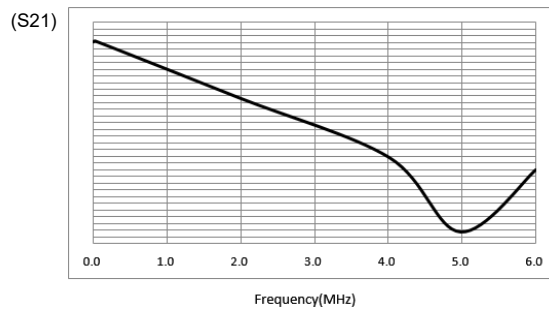
DC current vs Temperature



Inductance vs Frequency

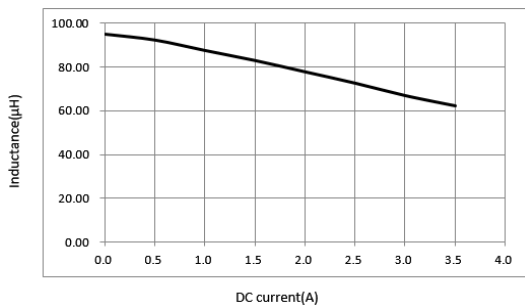


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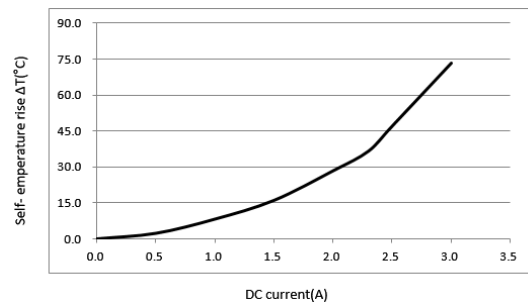


*SPH10050-101M

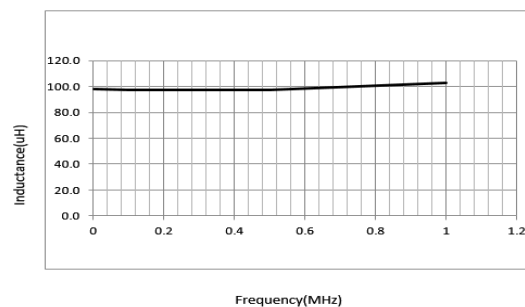
Inductance vs DC current



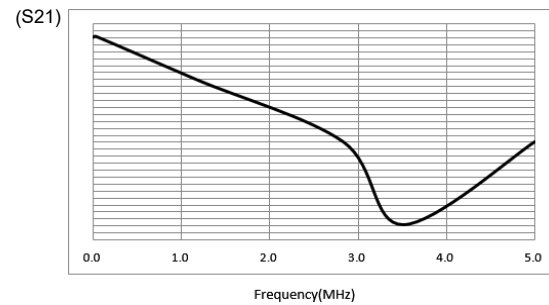
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