

SMD High Current Inductors

Fixed Inductor for Surface Mounting

SPH7040

Construction

- Metal alloy powder core
- Shielded construction

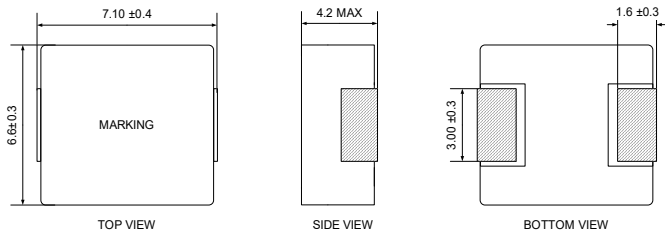
Features

- 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

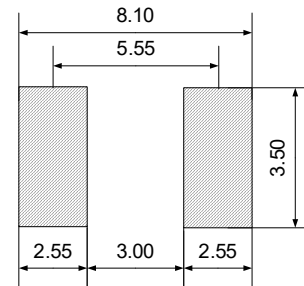
Applications

- 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
SPH7040-R68M	0.68±20%	5.0	72.0	19.0	17.0	R68
SPH7040-1R0M	1.0±20%	6.6	54.0	16.0	13.5	1R0
SPH7040-1R5M	1.5±20%	10.0	42.0	12.5	12.0	1R5
SPH7040-2R2M	2.2±20%	14.0	33.0	11.0	10.0	2R2
SPH7040-3R3M	3.3±20%	20.0	25.0	9.5	8.5	3R3
SPH7040-4R7M	4.7±20%	30.0	20.0	9.0	6.5	4R7
SPH7040-6R8M	6.8±20%	45.0	17.5	6.5	5.5	6R8
SPH7040-8R2M	8.2±20%	55.0	13.0	6.0	5.2	8R2
SPH7040-100M	10±20%	65.0	12.5	5.5	4.8	100
SPH7040-150M	15±20%	95.0	11.0	4.5	3.7	150
SPH7040-220M	22±20%	125.0	10.0	4.0	3.3	220
SPH7040-330M	33±20%	240.0	7.0	3.0	2.2	330
SPH7040-470M	47±20%	320.0	6.0	2.0	1.8	470

※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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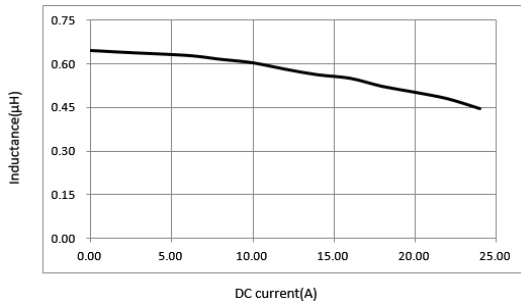
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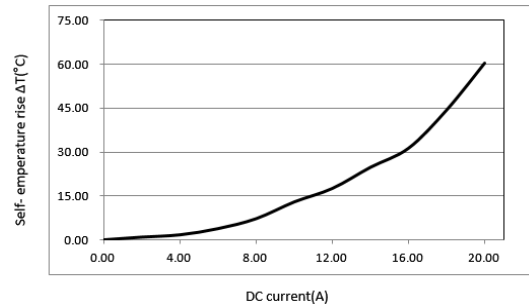
SPH7040

*SPH7040-R68M

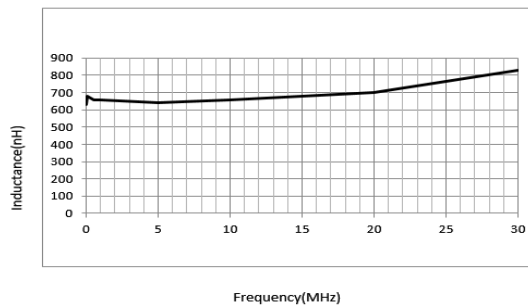
Inductance vs DC current



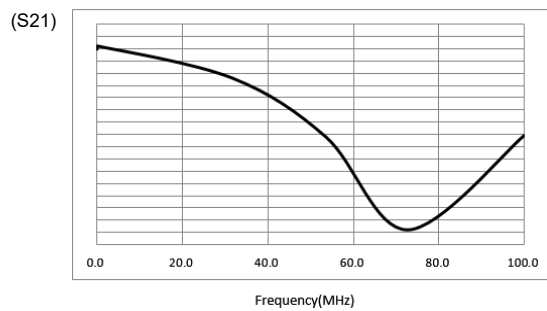
DC current vs Temperature



Inductance vs Frequency

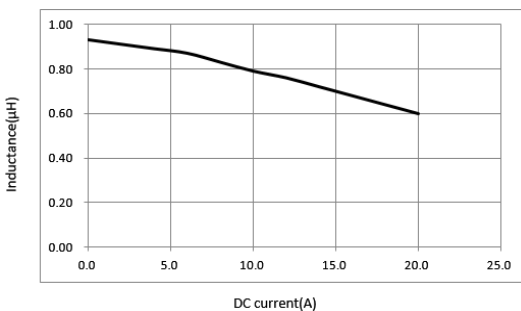


SRF(Self Resonance Frequency)

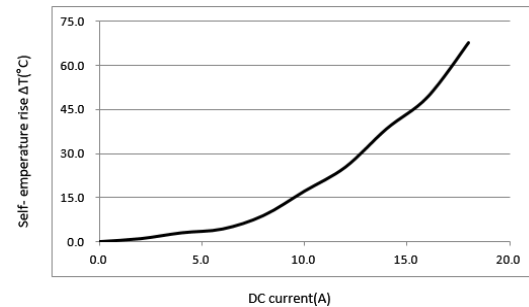


*SPH7040-1R0M

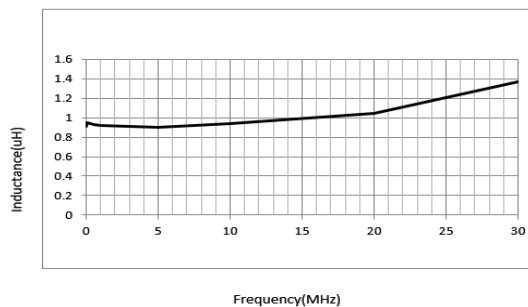
Inductance vs DC current



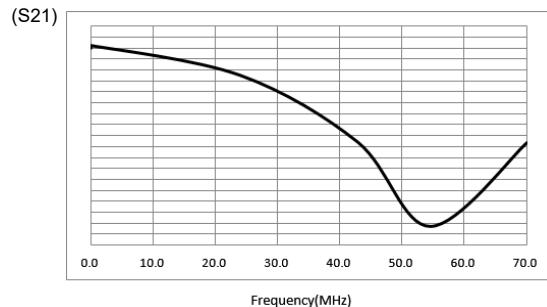
DC current vs Temperature



Inductance vs Frequency



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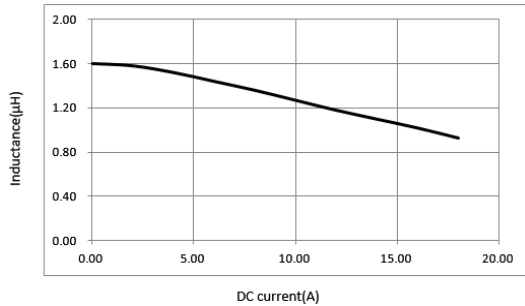
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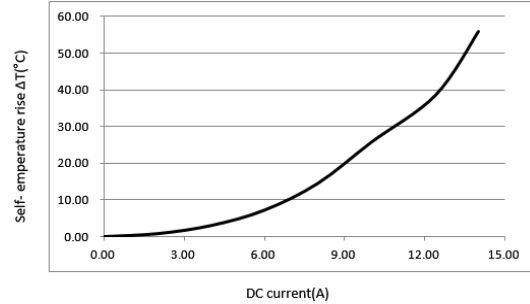
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*SPH7040-1R5M

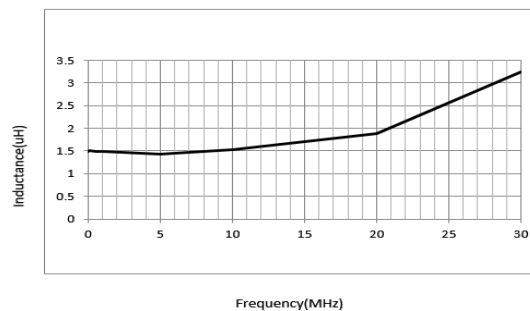
Inductance vs DC current



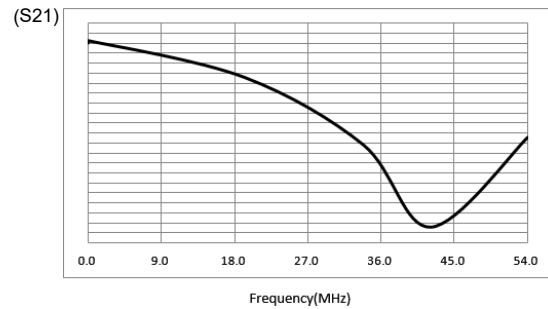
DC current vs Temperature



Inductance vs Frequency

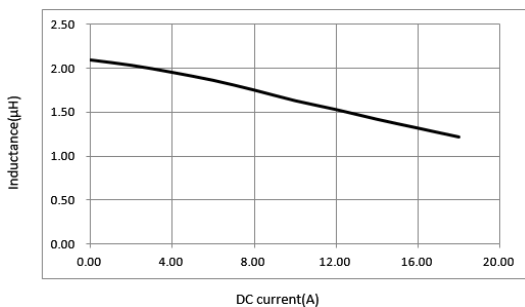


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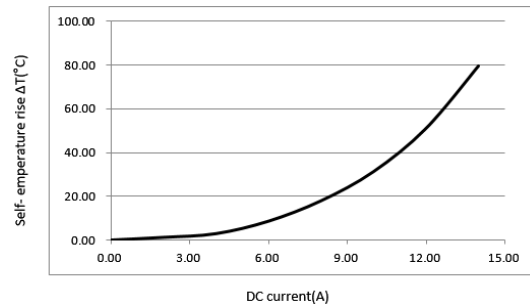


*SPH7040-2R2M

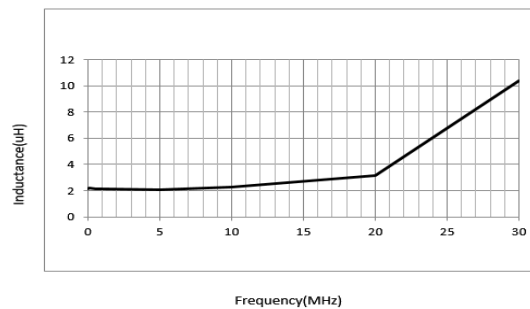
Inductance vs DC current



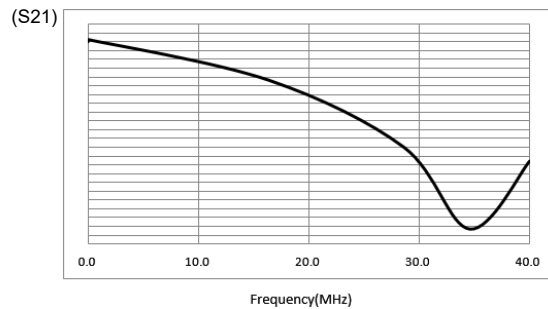
DC current vs Temperature



Inductance vs Frequency



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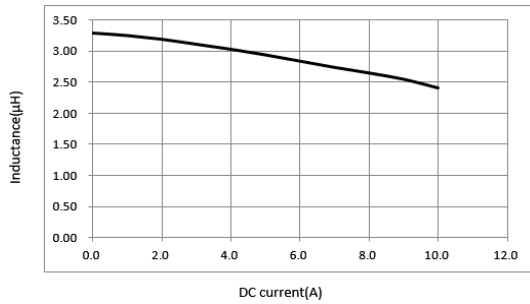
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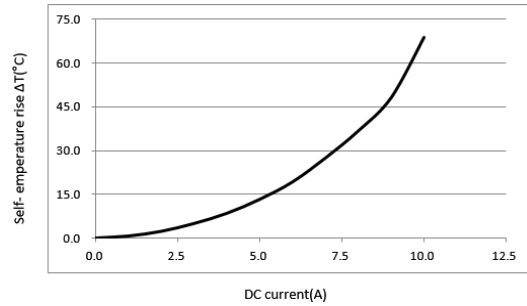
SPH7040

*SPH7040-3R3M

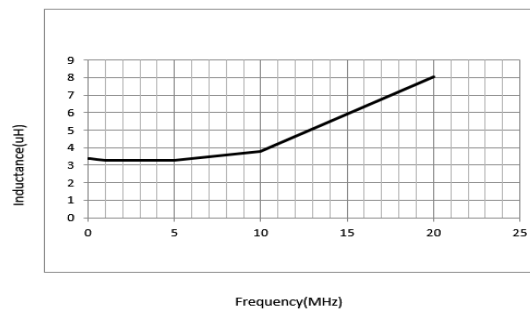
Inductance vs DC current



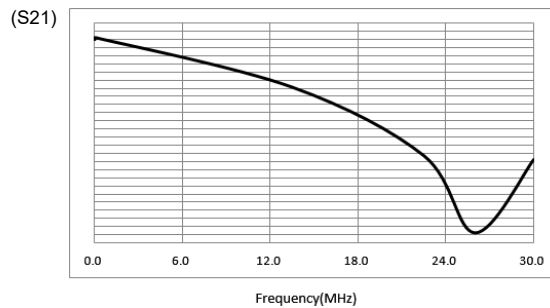
DC current vs Temperature



Inductance vs Frequency

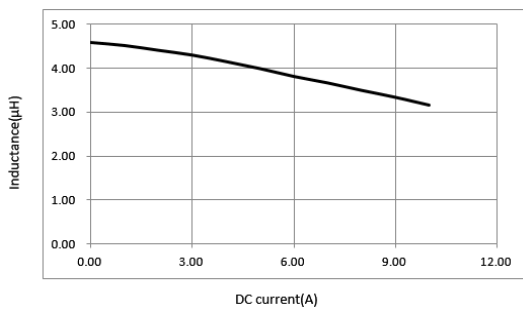


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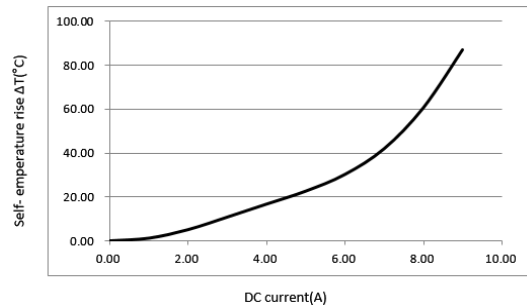


*SPH7040-4R7M

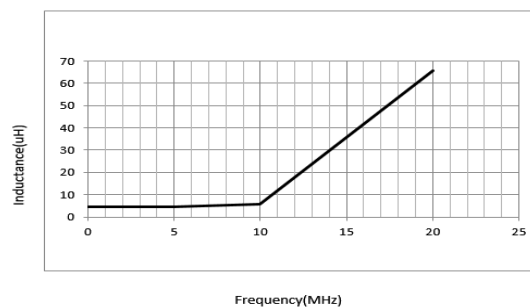
Inductance vs DC current



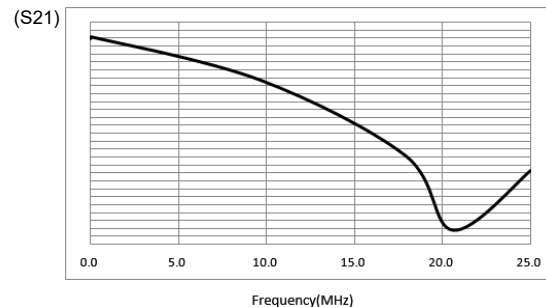
DC current vs Temperature



Inductance vs Frequency



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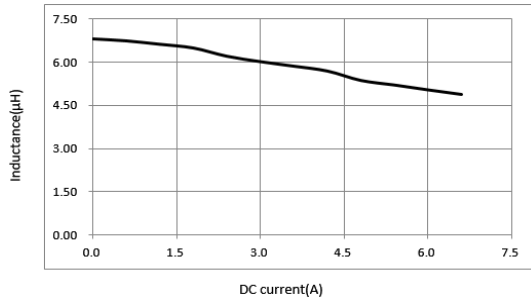
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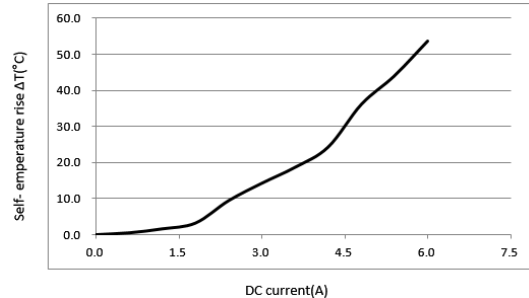
SPH7040

*SPH7040-6R8M

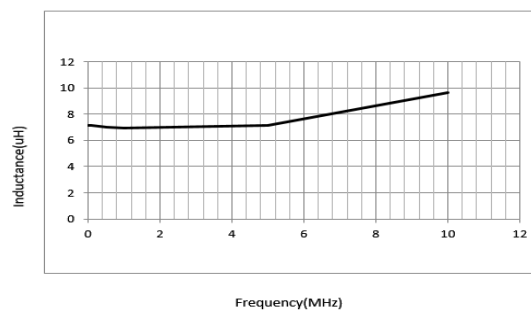
Inductance vs DC current



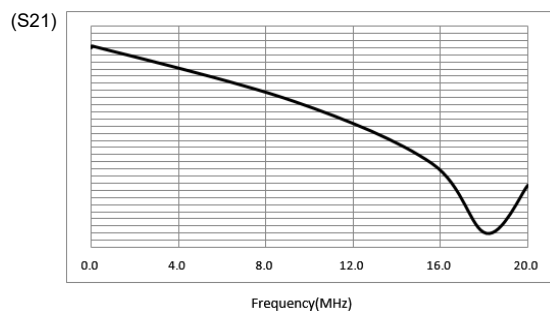
DC current vs Temperature



Inductance vs Frequency

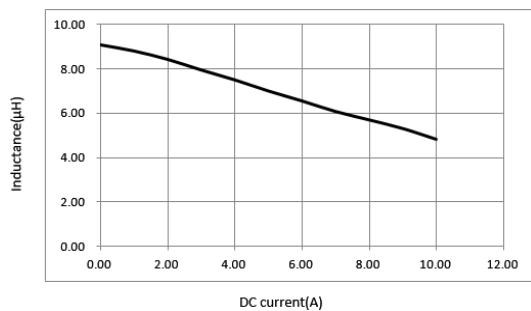


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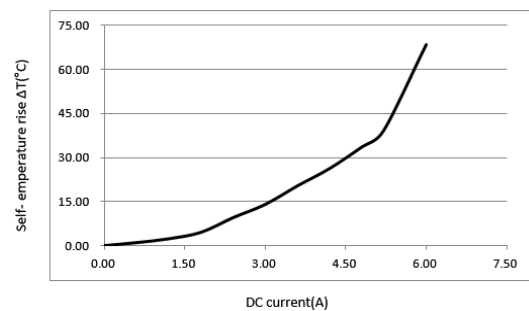


*SPH7040-8R2M

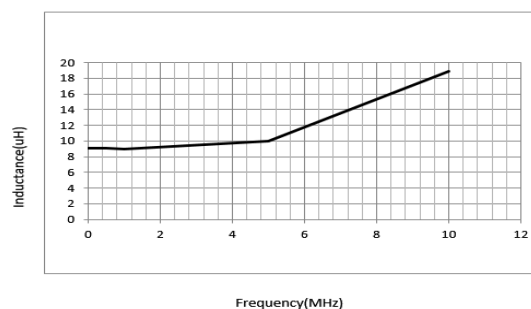
Inductance vs DC current



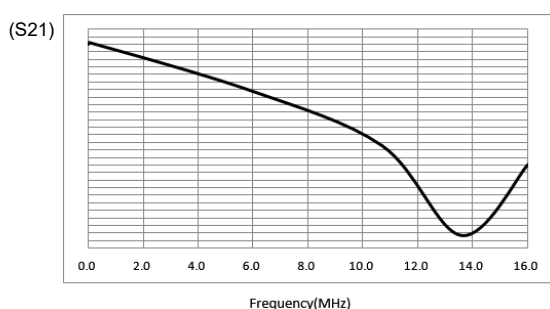
DC current vs Temperature



Inductance vs Frequency



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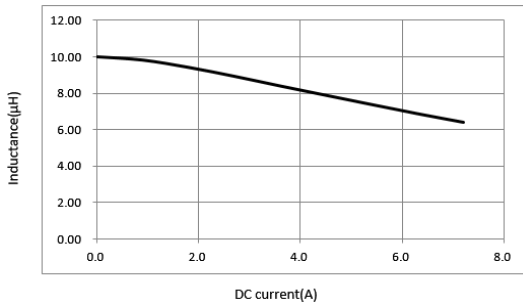
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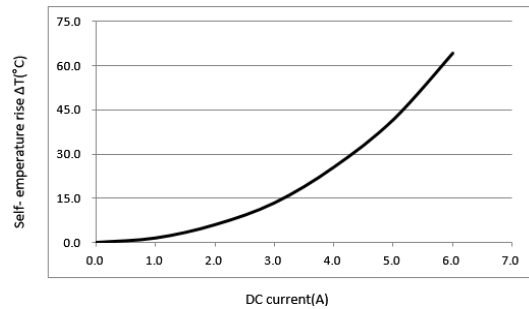
SPH7040

*SPH7040-100M

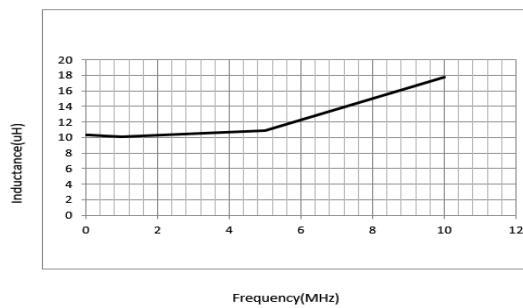
Inductance vs DC current



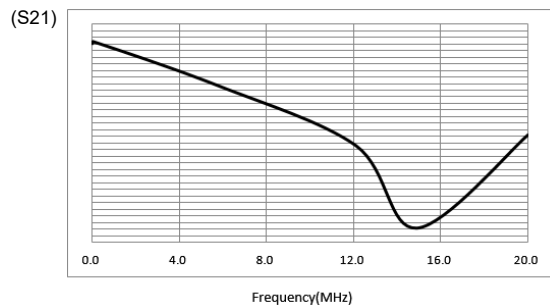
DC current vs Temperature



Inductance vs Frequency

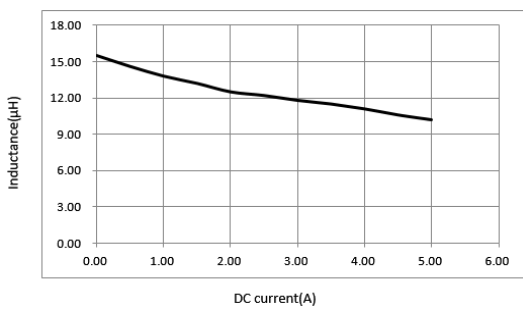


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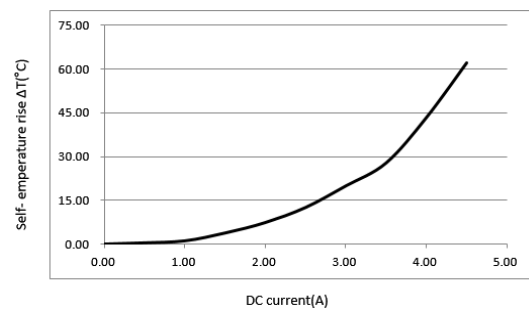


*SPH7040-150M

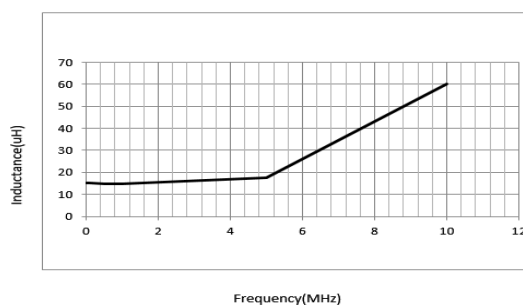
Inductance vs DC current



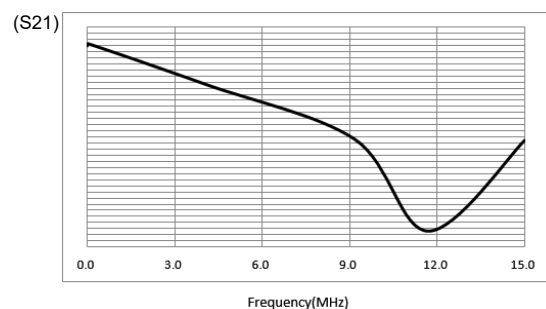
DC current vs Temperature



Inductance vs Frequency



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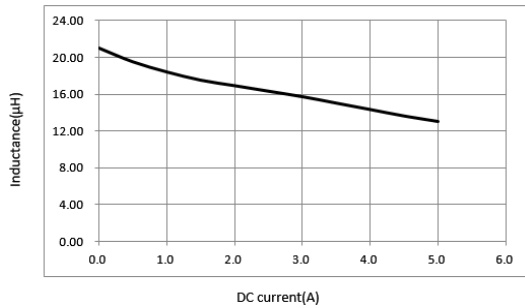
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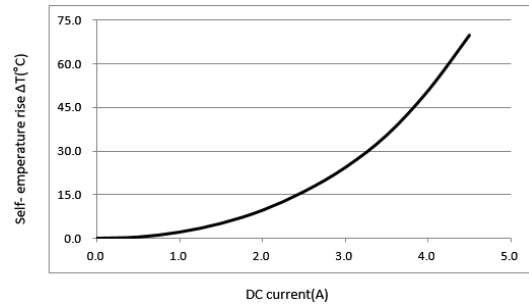
SPH7040

*SPH7040-220M

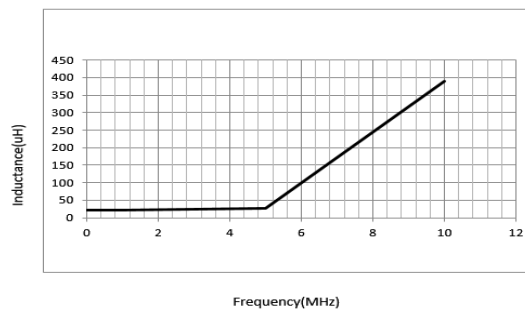
Inductance vs DC current



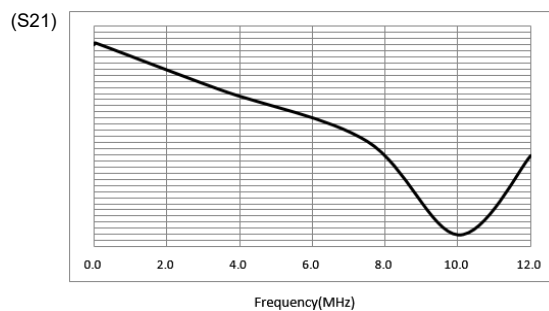
DC current vs Temperature



Inductance vs Frequency

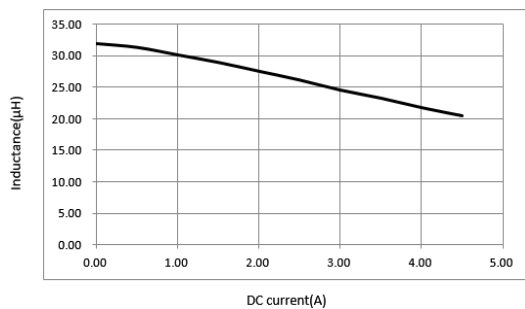


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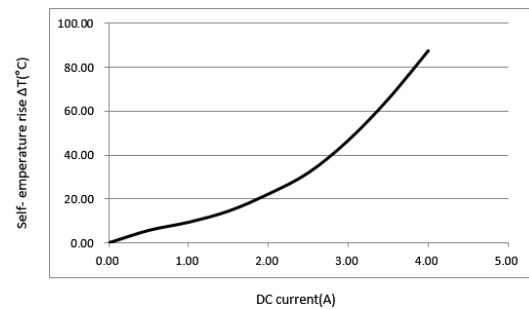


*SPH7040-330M

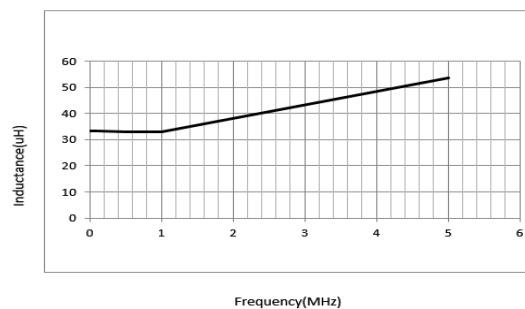
Inductance vs DC current



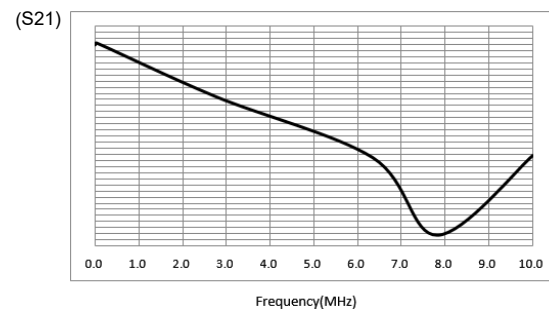
DC current vs Temperature



Inductance vs Frequency



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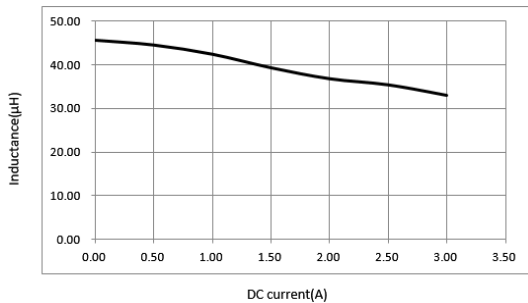
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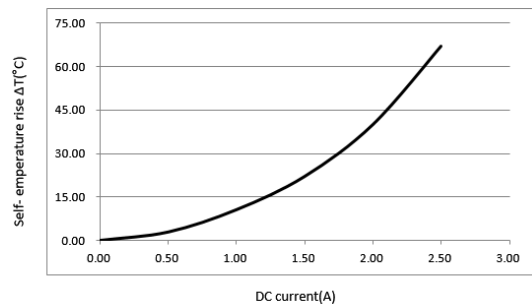
SPH7040

*SPH7040-470M

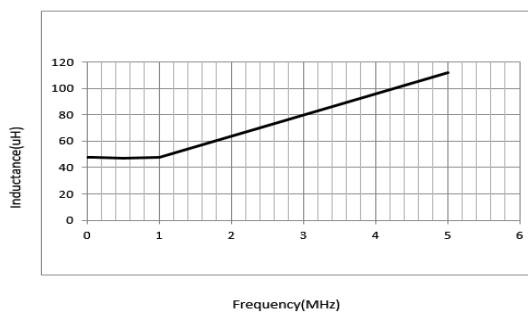
Inductance vs DC current



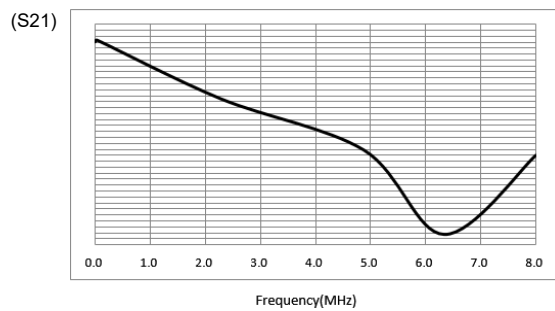
DC current vs Temperature



Inductance vs Frequency



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