

SMD High Current Inductors

Fixed Inductor for Surface Mounting

SPH5030

Construction

- Metal alloy powder core
- Shielded construction

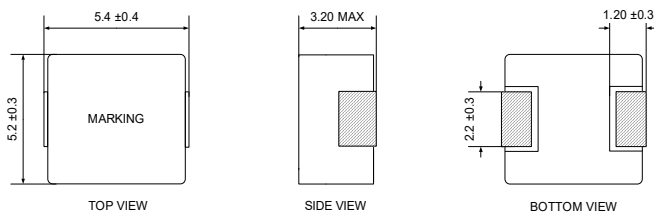
Features

- 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

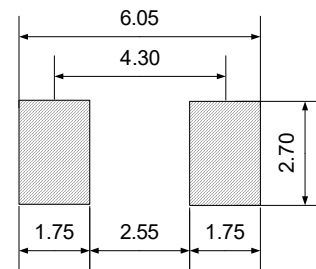
Applications

- 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(uH)	DCR(mΩ,MAX)	SRF(TYP,MHz)	Isat*1(A,TYP)	Irms*2(A,TYP)	Marking
SPH5030-R10M	0.10±20%	3.0	320.0	30.0	25.0	R10
SPH5030-R20M	0.20±20%	4.0	185.0	20.0	14.0	R20
SPH5030-R33M	0.33±20%	6.0	115.0	18.0	12.0	R33
SPH5030-R47M	0.47±20%	8.5	105.0	15.0	11.0	R47
SPH5030-R68M	0.68±20%	12.0	85.0	11.5	9.0	R68
SPH5030-1R0M	1.0±20%	14.0	55.0	10.0	8.5	1R0
SPH5030-1R2M	1.2±20%	16.0	52.0	9.5	8.3	1R2
SPH5030-1R5M	1.5±20%	25.0	51.0	9.0	8.2	1R5
SPH5030-2R2M	2.2±20%	29.0	38.0	7.0	6.5	2R2
SPH5030-3R3M	3.3±20%	38.0	30.0	6.0	5.5	3R3
SPH5030-4R7M	4.7±20%	60.0	29.0	4.6	4.3	4R7
SPH5030-6R8M	6.8±20%	90.0	22.0	3.6	3.4	6R8
SPH5030-8R2M	8.2±20%	105.0	20.0	3.5	3.25	8R2
SPH5030-100M	10±20%	125.0	18.0	3.4	3.2	100
SPH5030-150M	15±20%	180.0	12.0	2.2	1.7	150

※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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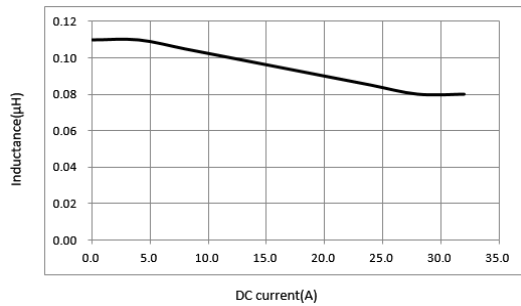
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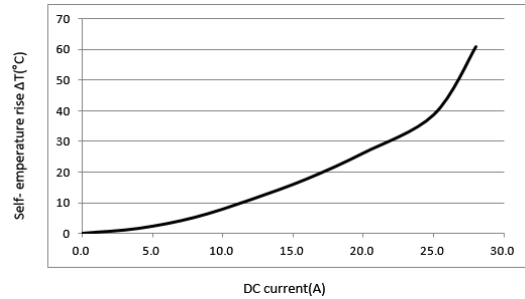
SPH5030

*SPH5030-R10M

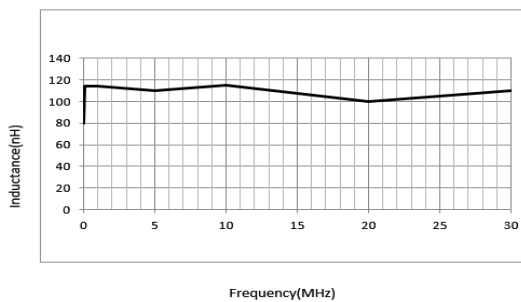
Inductance vs DC current



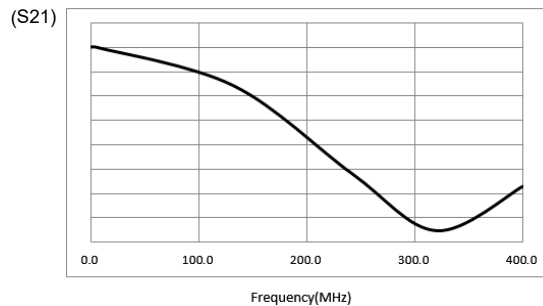
DC current vs Temperature



Inductance vs Frequency

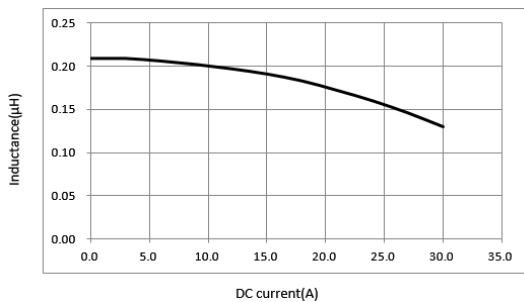


SRF(Self Resonance Frequency)

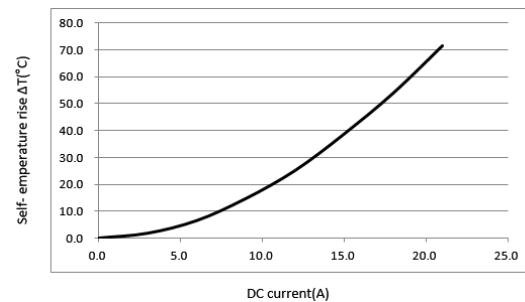


*SPH5030-R20M

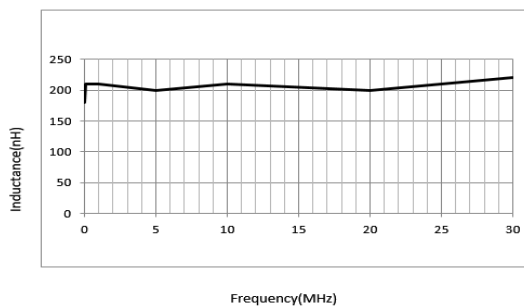
Inductance vs DC current



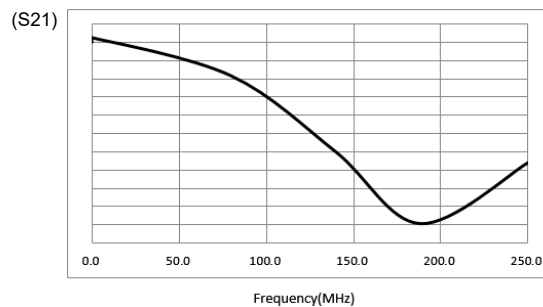
DC current vs Temperature



Inductance vs Frequency



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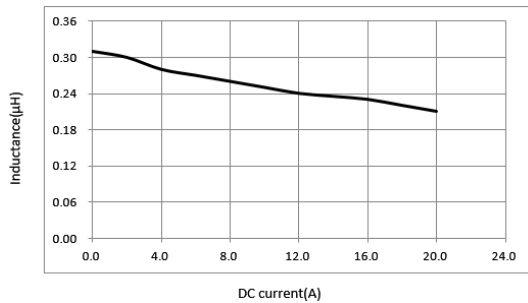
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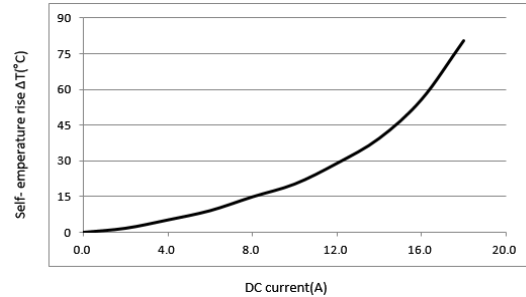
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*SPH5030-R33M

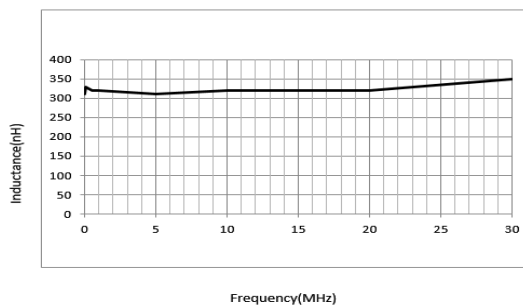
Inductance vs DC current



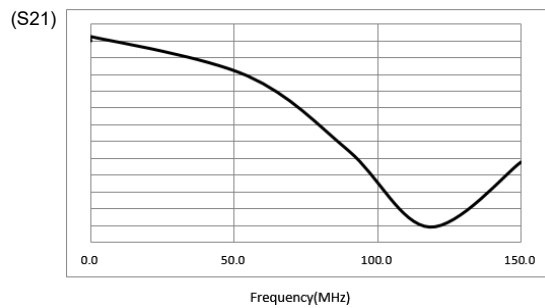
DC current vs Temperature



Inductance vs Frequency

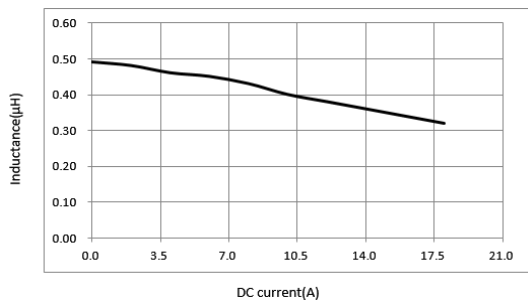


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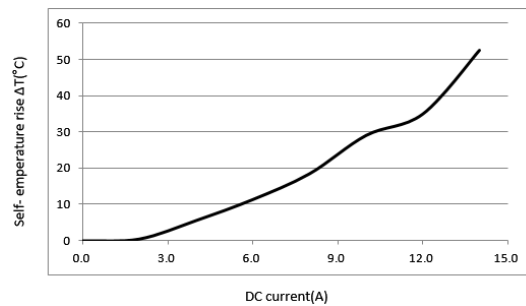


*SPH5030-R47M

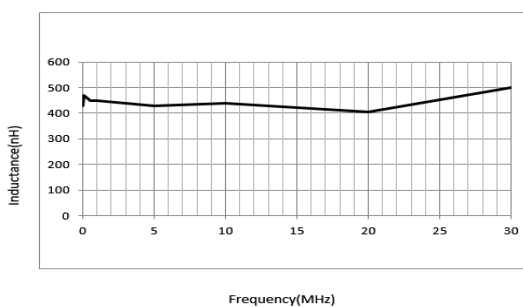
Inductance vs DC current



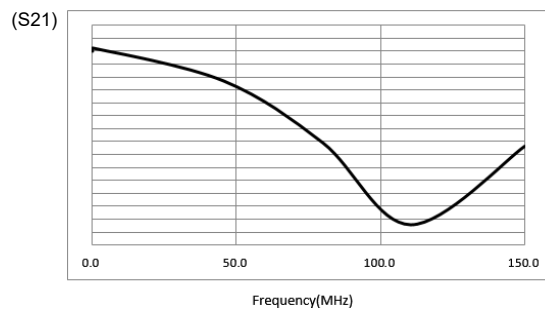
DC current vs Temperature



Inductance vs Frequency



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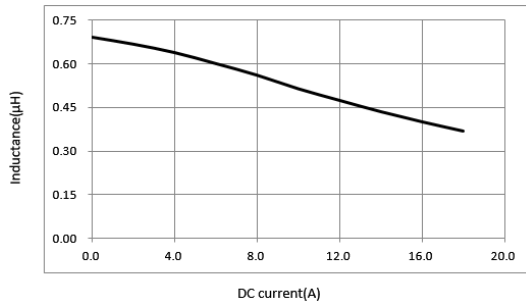
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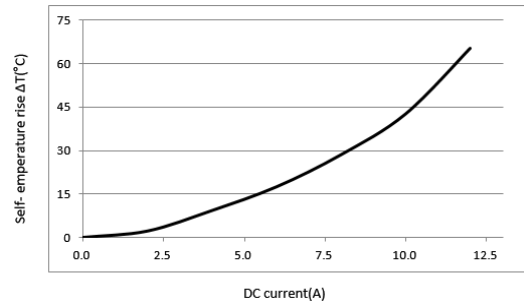
SPH5030

*SPH5030-R68M

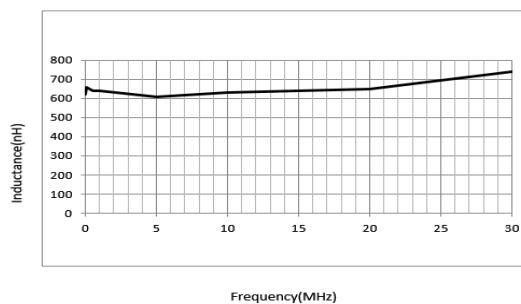
Inductance vs DC current



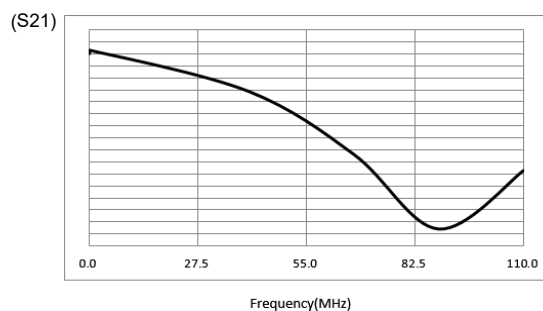
DC current vs Temperature



Inductance vs Frequency

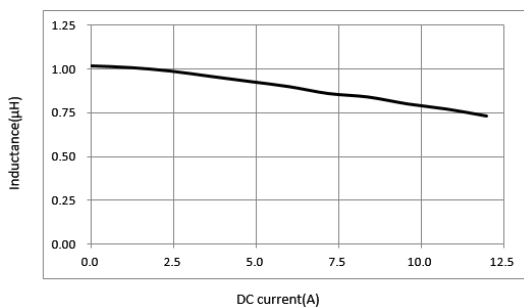


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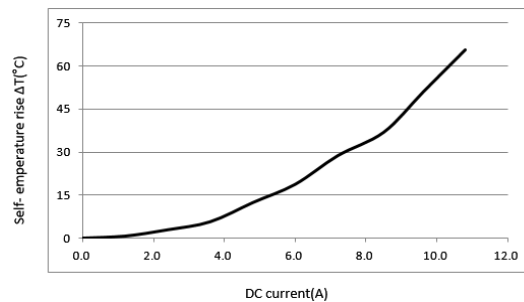


*SPH5030-1R0M

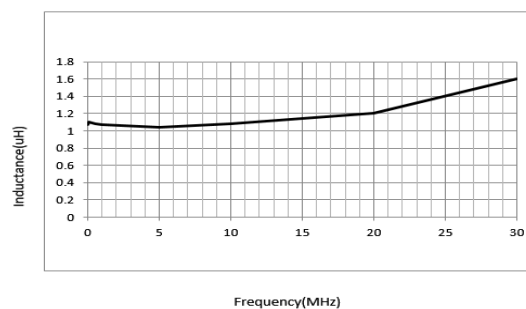
Inductance vs DC current



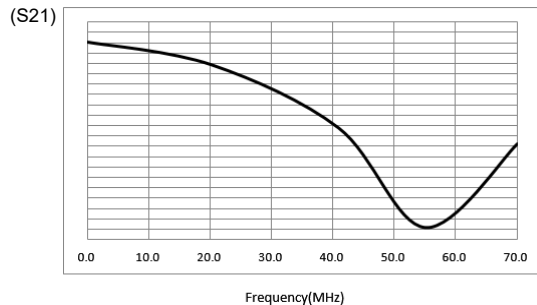
DC current vs Temperature



Inductance vs Frequency



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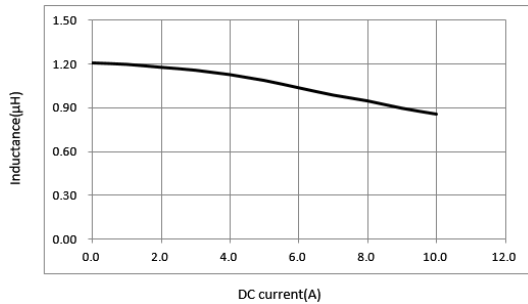
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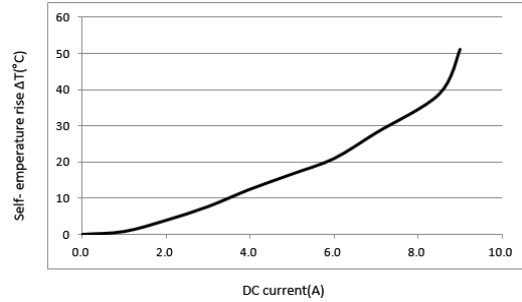
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*SPH5030-1R2M

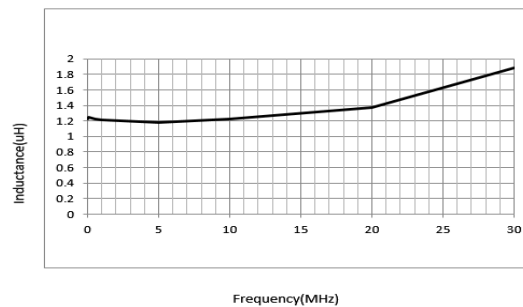
Inductance vs DC current



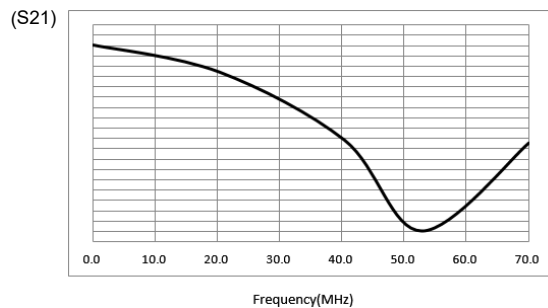
DC current vs Temperature



Inductance vs Frequency

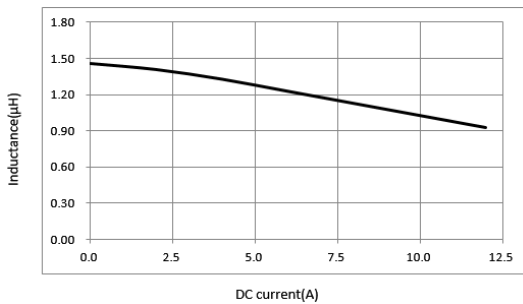


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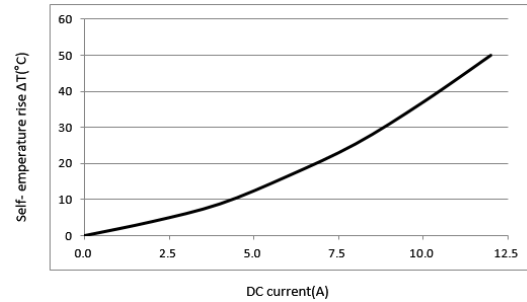


*SPH5030-1R5M

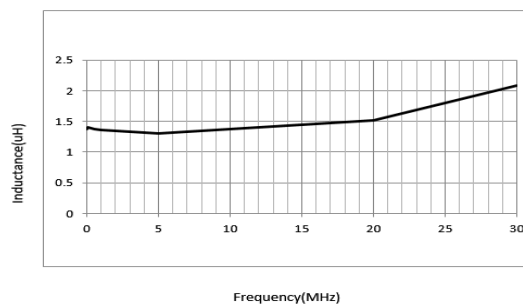
Inductance vs DC current



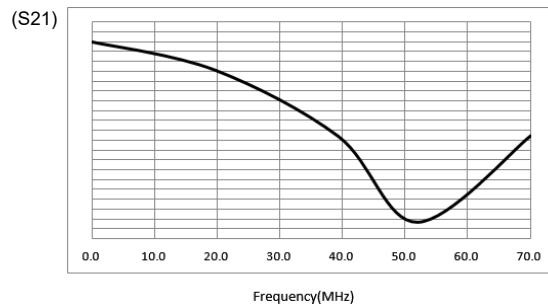
DC current vs Temperature



Inductance vs Frequency



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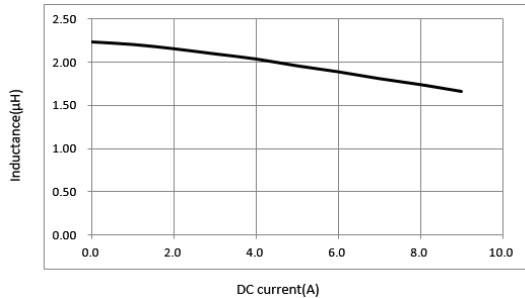
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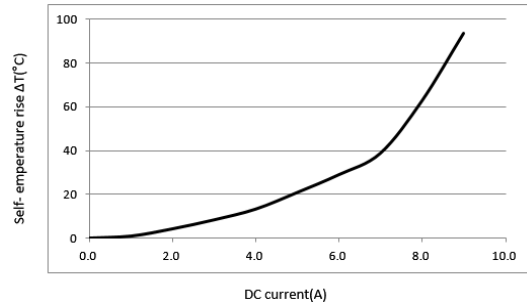
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*SPH5030-2R2M

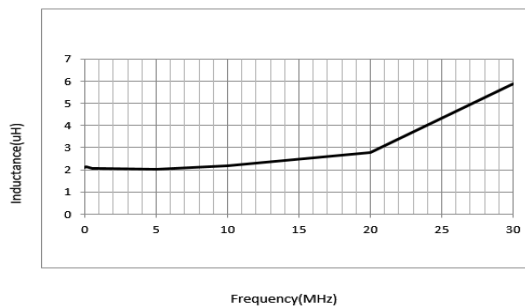
Inductance vs DC current



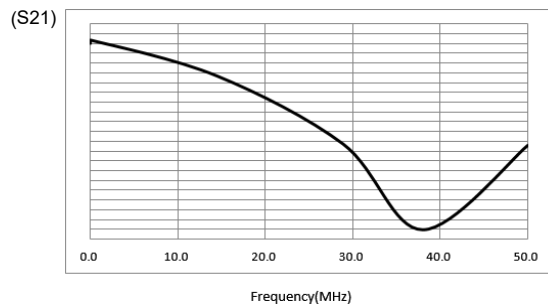
DC current vs Temperature



Inductance vs Frequency

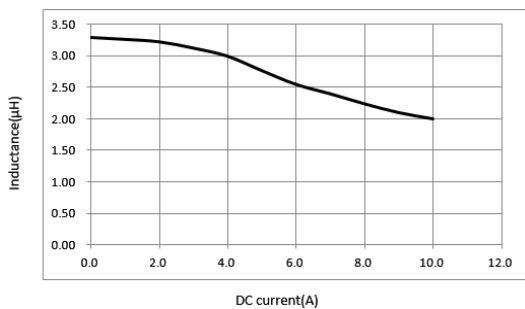


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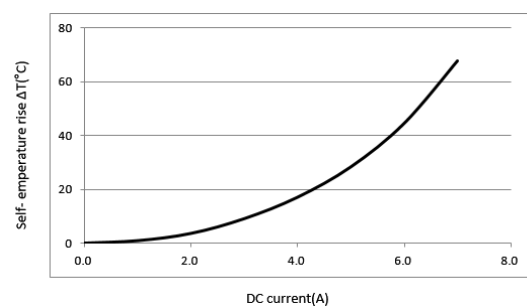


*SPH5030-3R3M

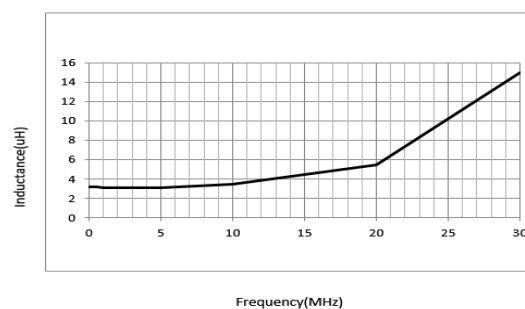
Inductance vs DC current



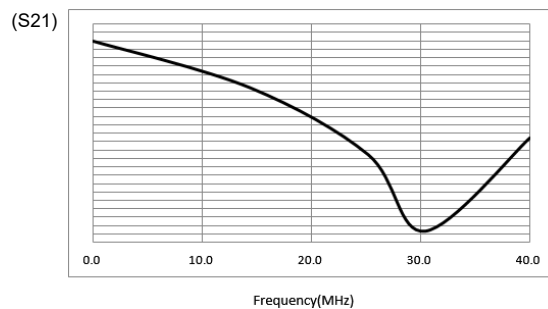
DC current vs Temperature



Inductance vs Frequency



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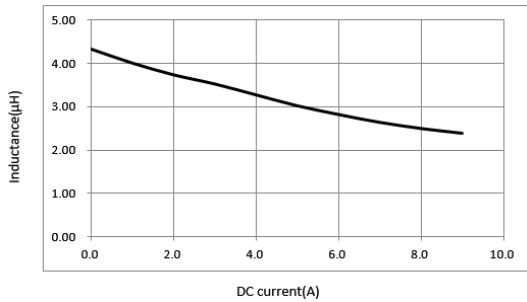
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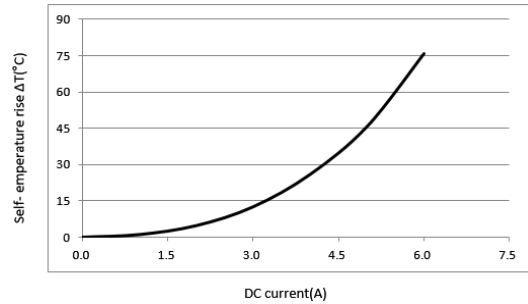
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*SPH5030-4R7M

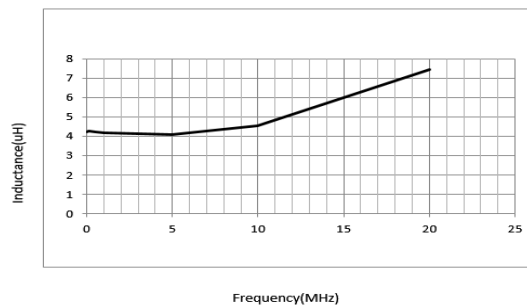
Inductance vs DC current



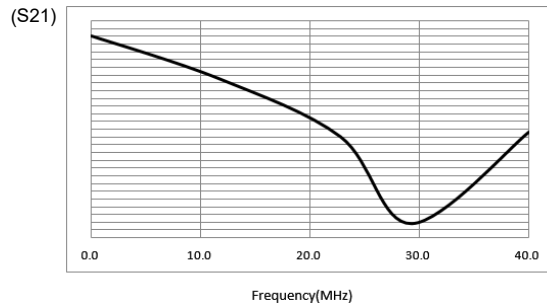
DC current vs Temperature



Inductance vs Frequency

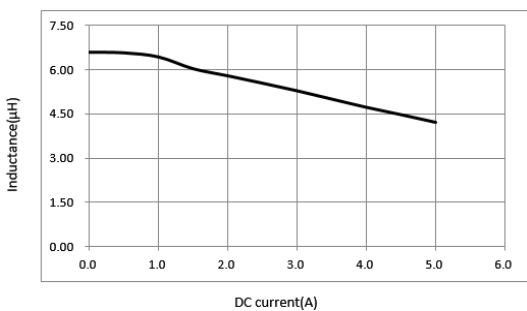


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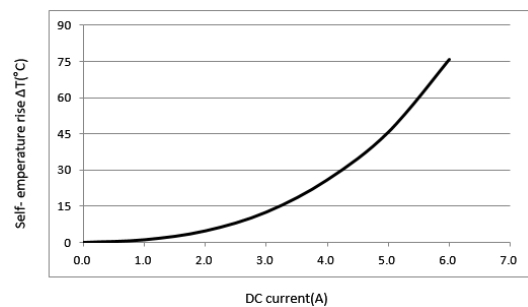


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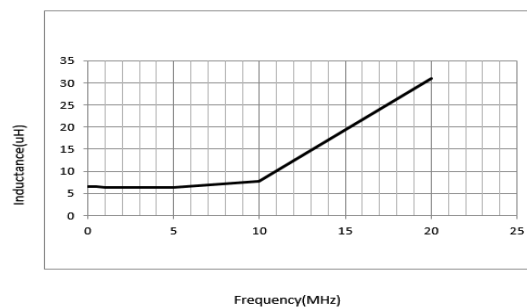
Inductance vs DC current



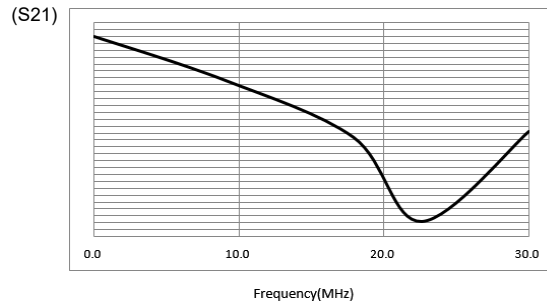
DC current vs Temperature



Inductance vs Frequency



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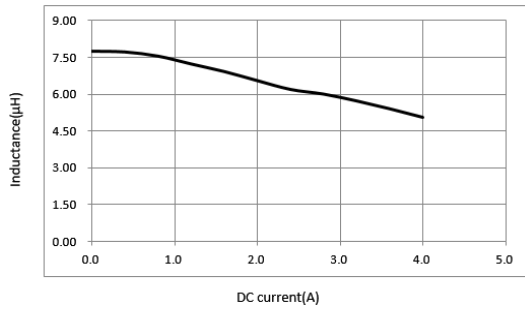
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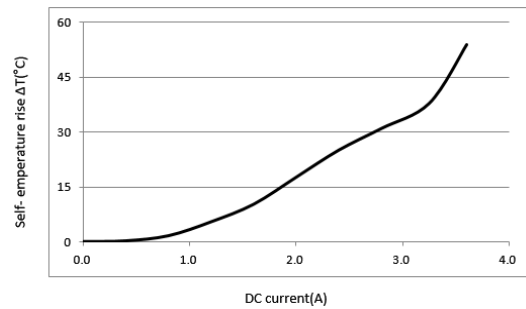
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*SPH5030-8R2M

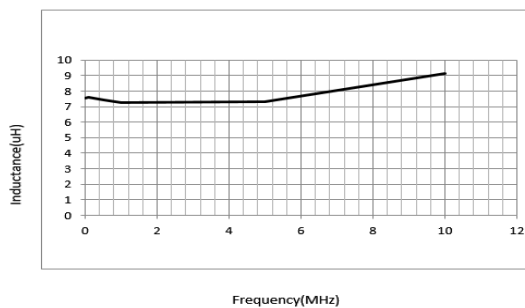
Inductance vs DC current



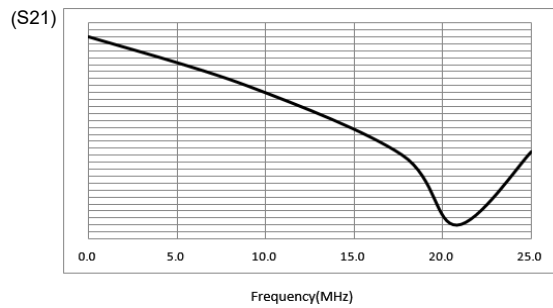
DC current vs Temperature



Inductance vs Frequency

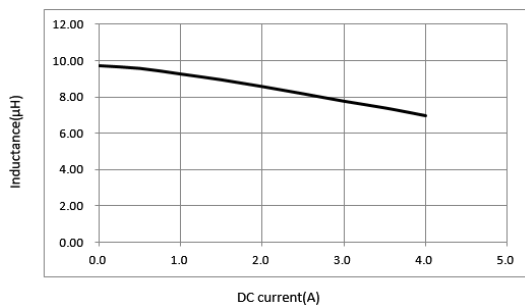


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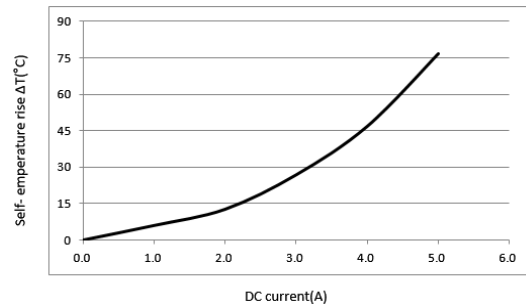


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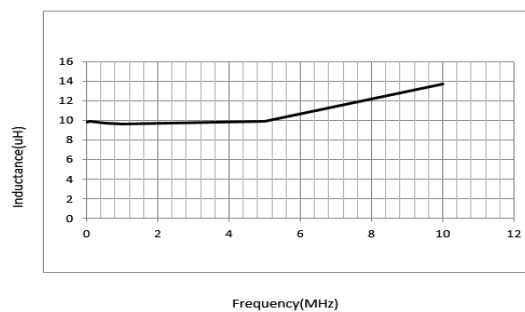
Inductance vs DC current



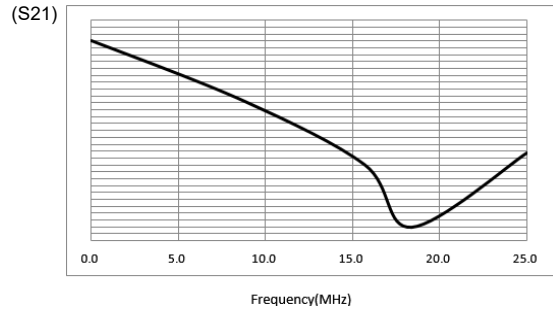
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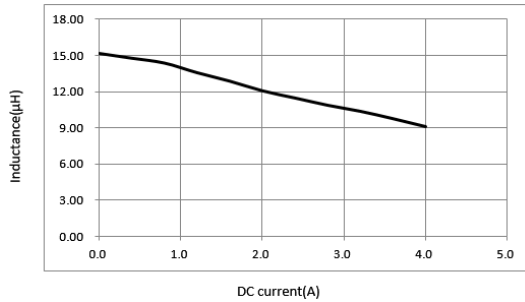
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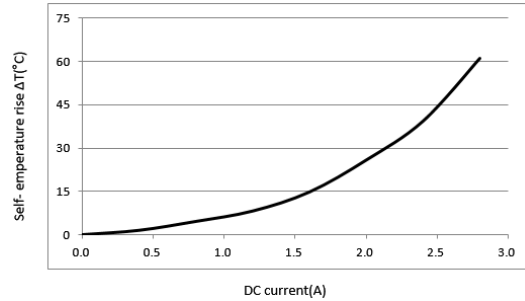
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*SPH5030-150M

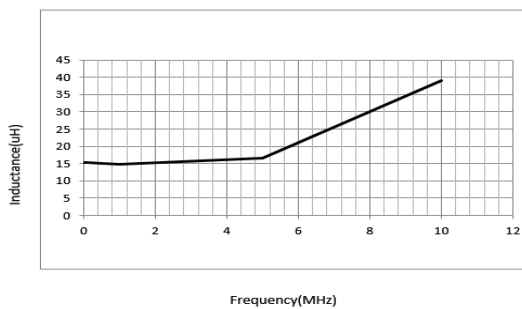
Inductance vs DC current



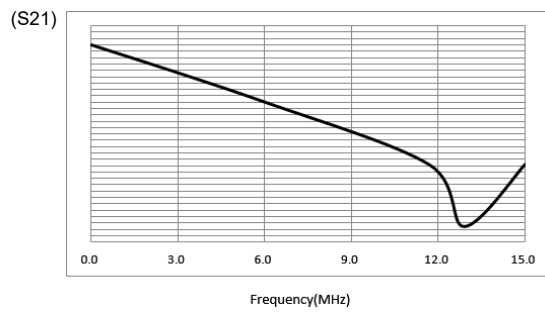
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