

SMD High Current Inductors

Fixed Inductor for Surface Mounting

SPH17070

Construction

- Metal alloy powder core
- Shielded construction



Features

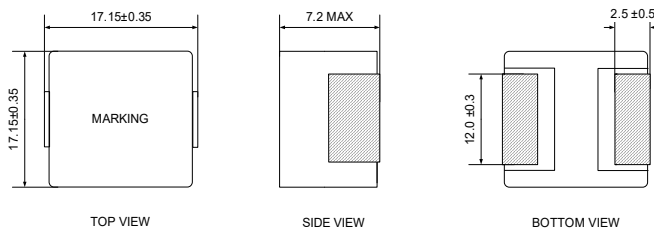
- Operating temperature -40 ~ +125°C
- Qualified to AEC-Q200
- Solder reflow temperature 260°C peak
- Low buzz noise
- High saturation current
- Suitable for lead-free reflow soldering



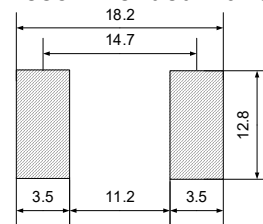
Applications

- 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
SPH17070-2R2M	2.2±20%	2.50	19.0	34.0	29.0	2R2
SPH17070-3R3M	3.3±20%	3.95	16.0	30.0	24.0	3R3
SPH17070-4R7M	4.7±20%	4.75	13.0	24.0	21.0	4R7
SPH17070-6R8M	6.8±20%	7.50	10.0	22.0	17.0	6R8
SPH17070-8R2M	8.2±20%	8.70	9.0	20.0	13.0	8R2
SPH17070-100M	10±20%	9.90	8.0	19.0	12.0	100
SPH17070-150M	15±20%	17.0	6.8	14.5	11.0	150
SPH17070-220M	22±20%	23.0	5.5	11.5	8.5	220
SPH17070-330M	33±20%	37.0	4.0	10.0	8.0	330
SPH17070-470M	47±20%	47.0	3.3	7.5	6.0	470
SPH17070-680M	68±20%	85.0	2.5	6.5	5.2	680
SPH17070-101M	100±20%	130.0	2.2	5.0	3.7	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

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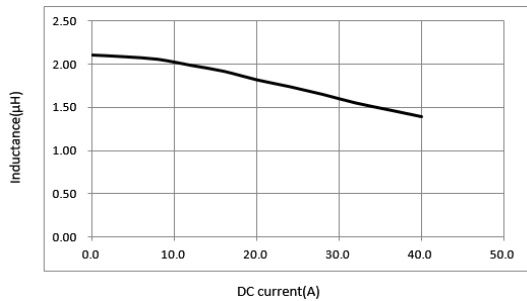
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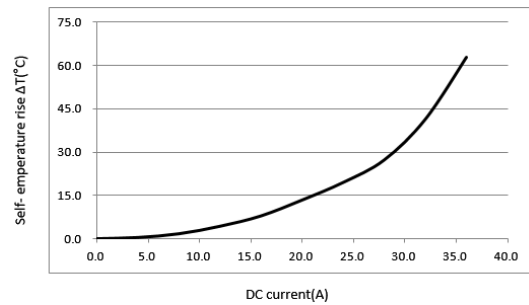
SPH17070

*SPH17070-2R2M

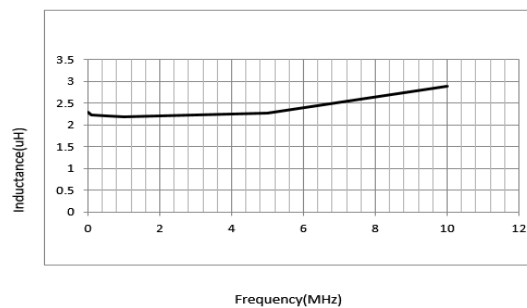
Inductance vs DC current



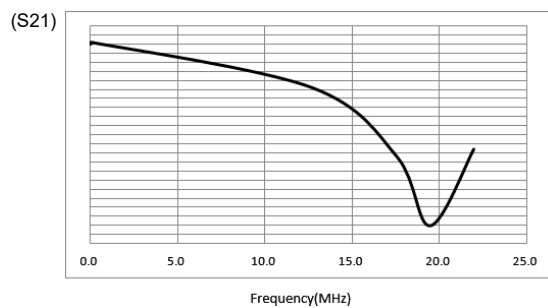
DC current vs Temperature



Inductance vs Frequency

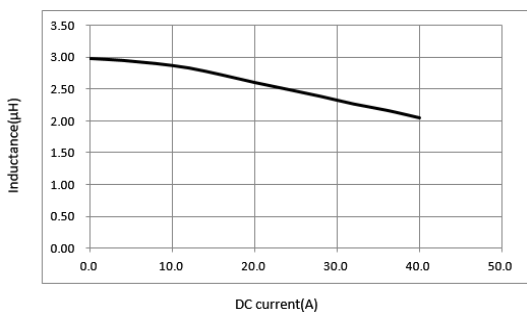


SRF(Self Resonance Frequency)

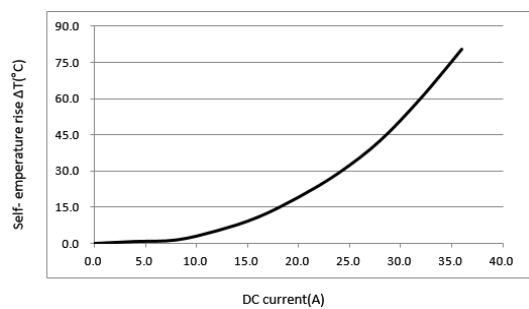


*SPH17070-3R3M

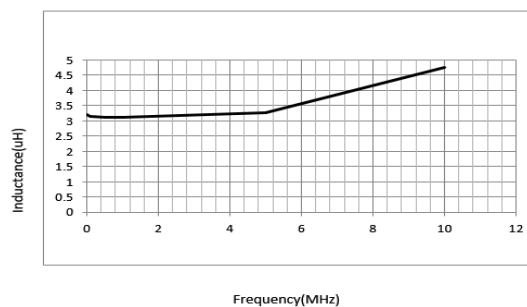
Inductance vs DC current



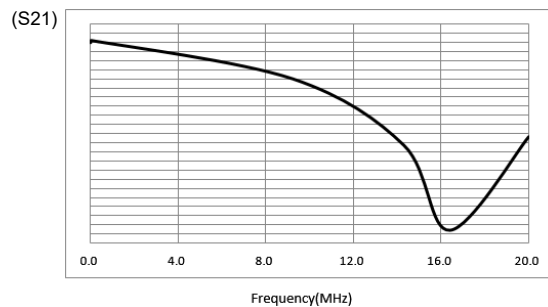
DC current vs Temperature



Inductance vs Frequency



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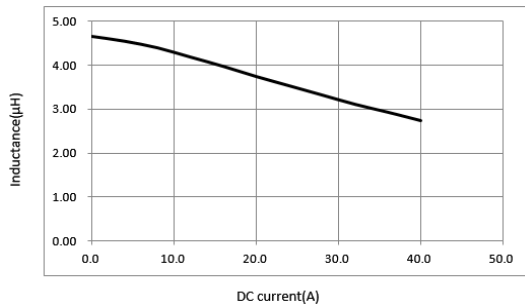
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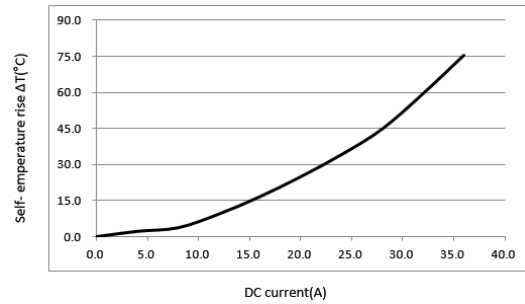
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*SPH17070-4R7M

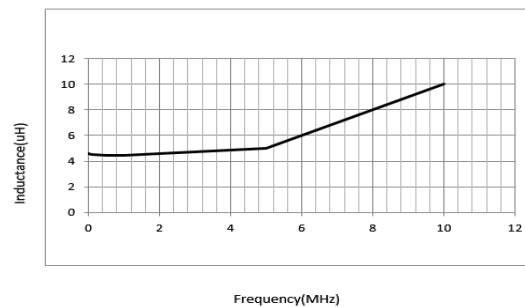
Inductance vs DC current



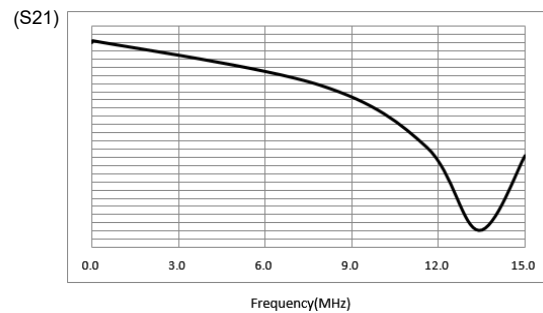
DC current vs Temperature



Inductance vs Frequency

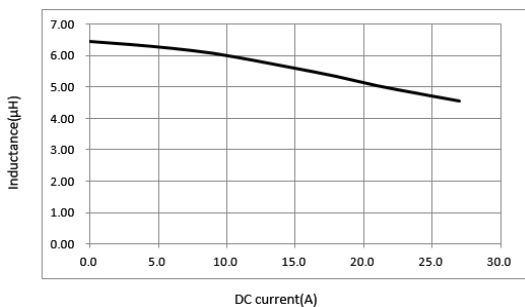


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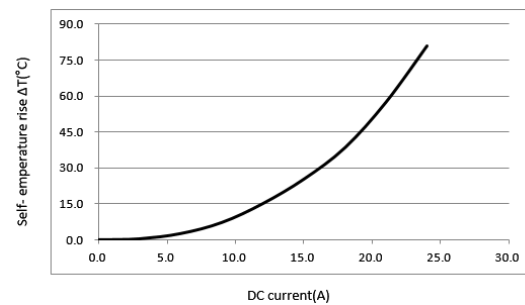


*SPH17070-6R8M

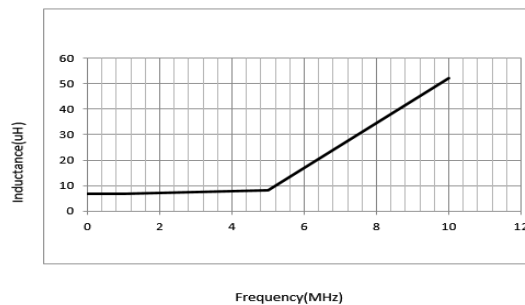
Inductance vs DC current



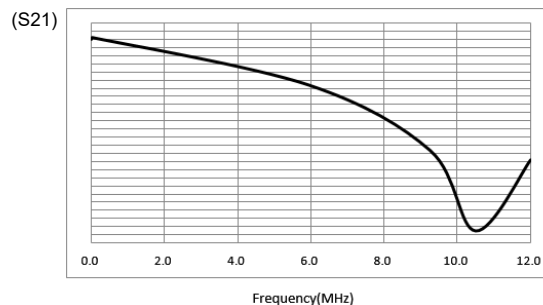
DC current vs Temperature



Inductance vs Frequency



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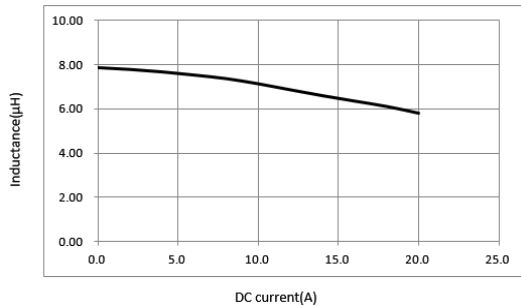
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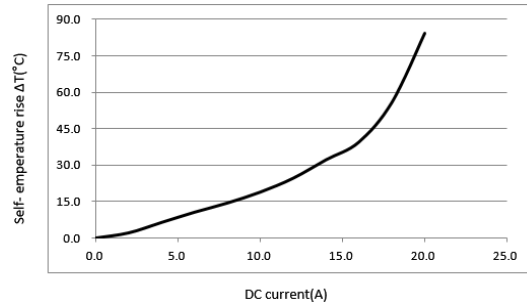
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*SPH17070-8R2M

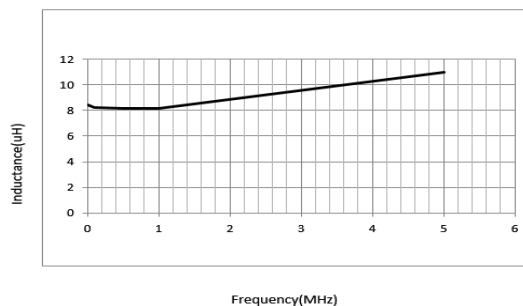
Inductance vs DC current



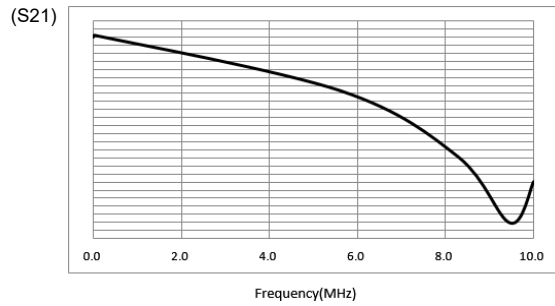
DC current vs Temperature



Inductance vs Frequency

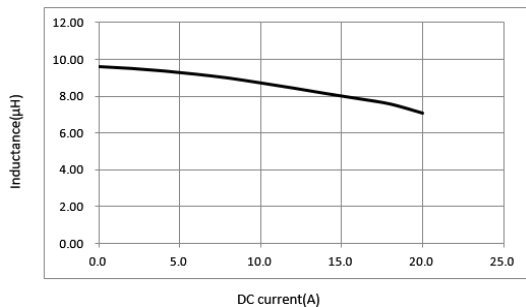


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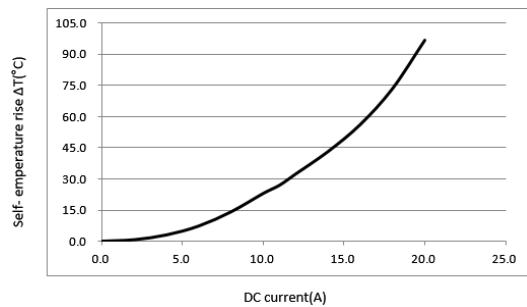


*SPH17070-100M

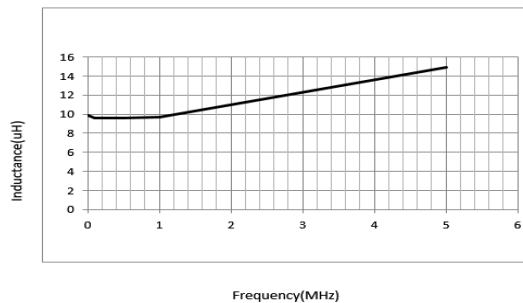
Inductance vs DC current



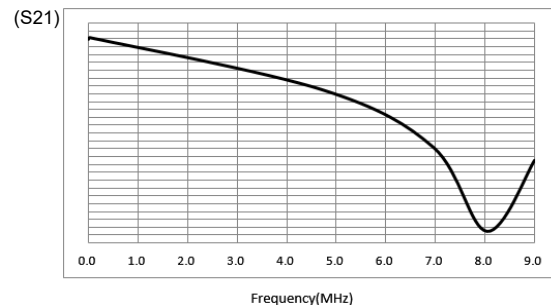
DC current vs Temperature



Inductance vs Frequency



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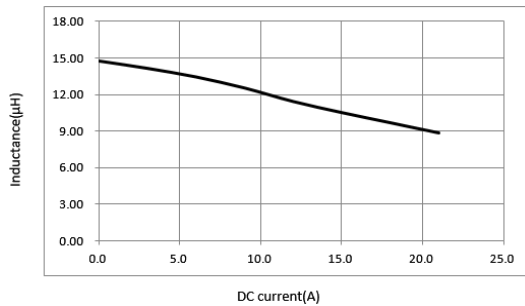
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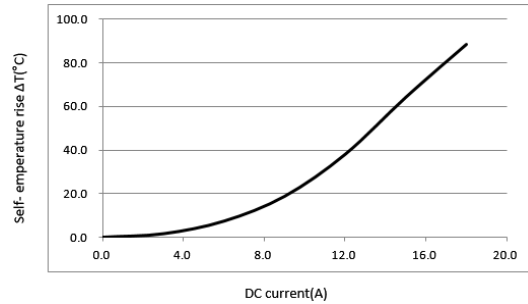
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*SPH17070-150M

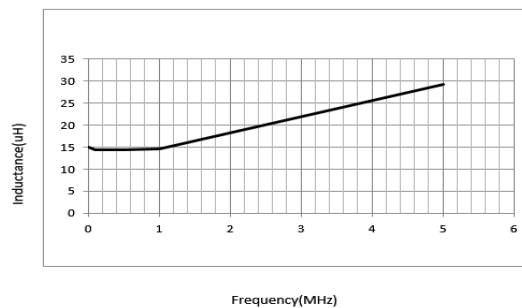
Inductance vs DC current



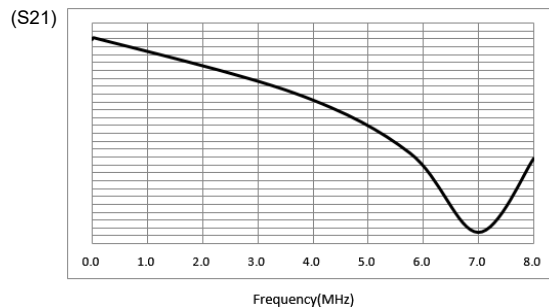
DC current vs Temperature



Inductance vs Frequency

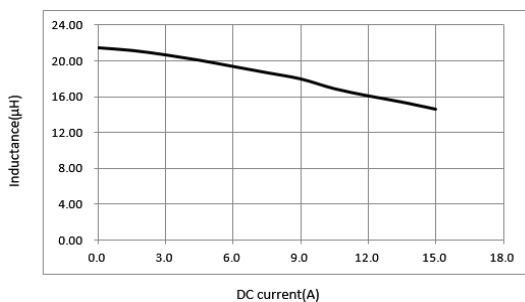


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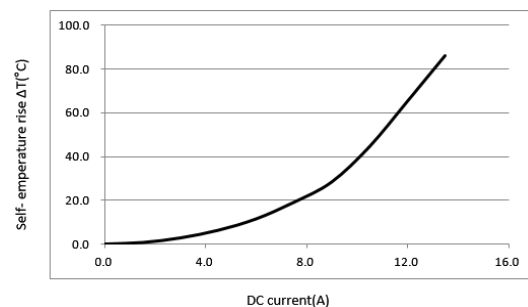


*SPH17070-220M

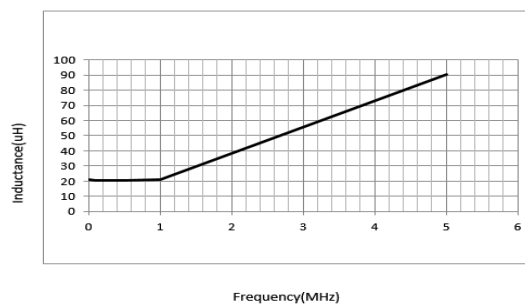
Inductance vs DC current



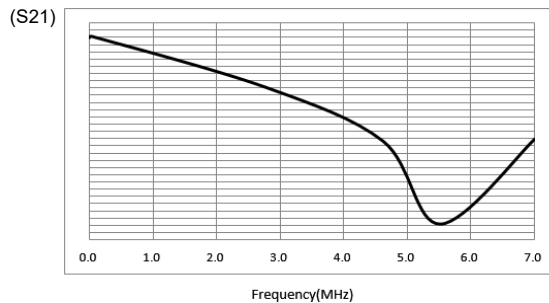
DC current vs Temperature



Inductance vs Frequency



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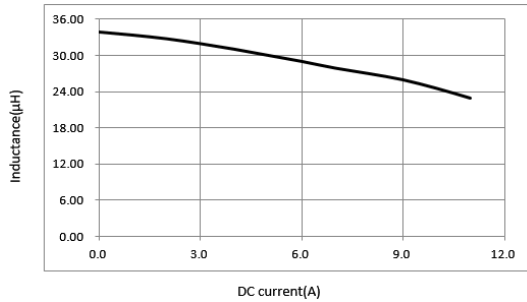
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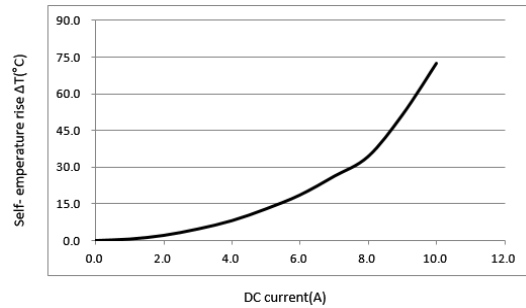
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*SPH17070-330M

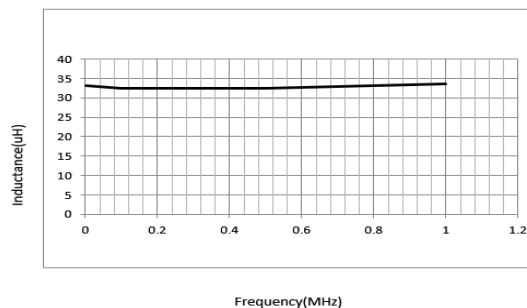
Inductance vs DC current



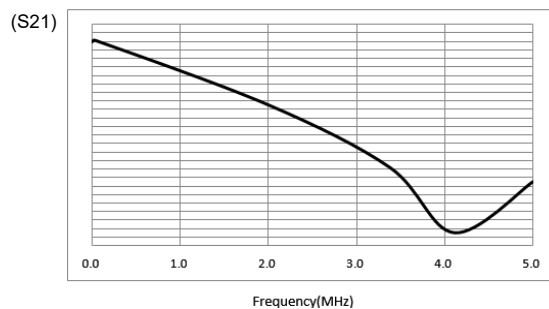
DC current vs Temperature



Inductance vs Frequency

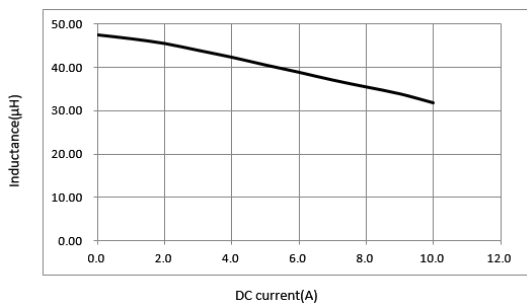


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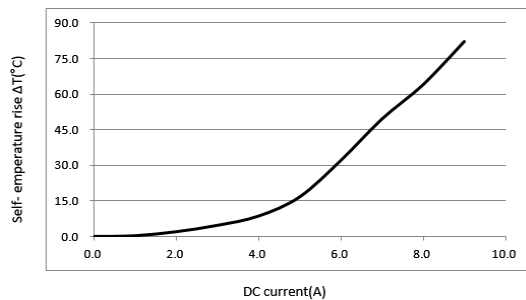


*SPH17070-470M

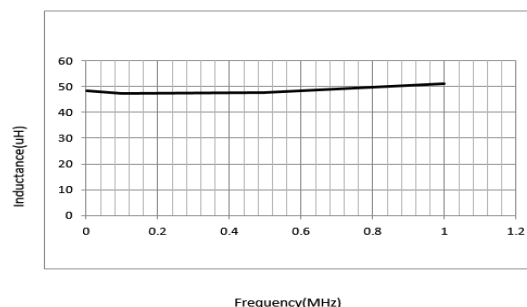
Inductance vs DC current



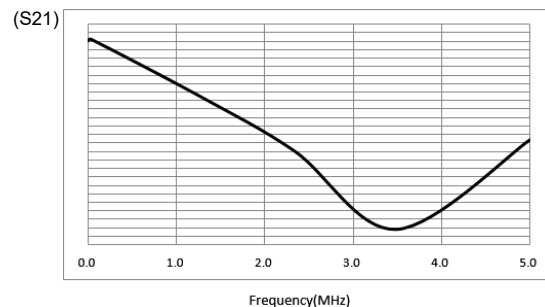
DC current vs Temperature



Inductance vs Frequency



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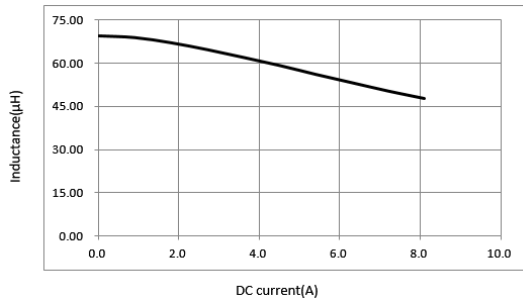
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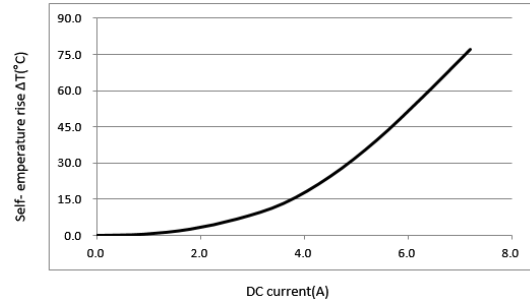
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*SPH17070-680M

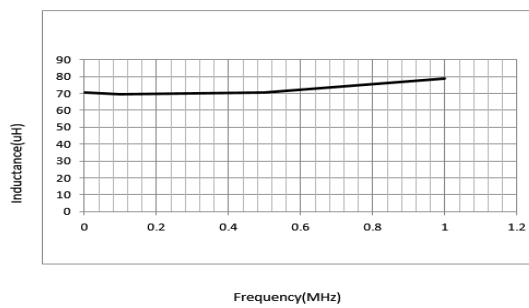
Inductance vs DC current



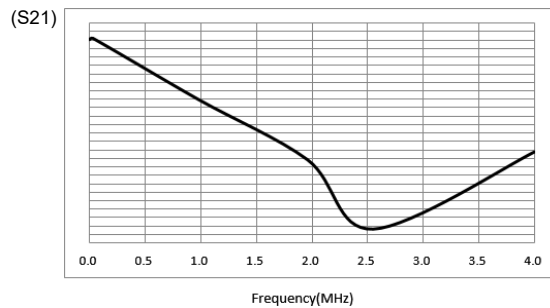
DC current vs Temperature



Inductance vs Frequency

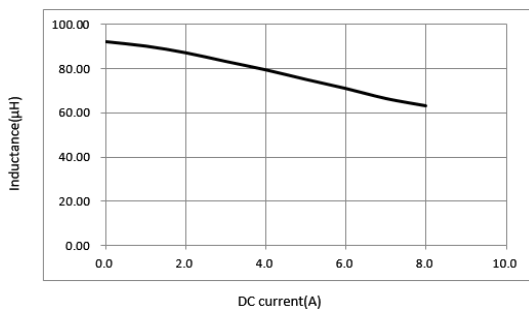


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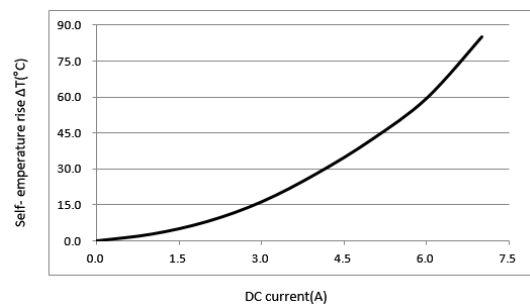


*SPH17070-101M

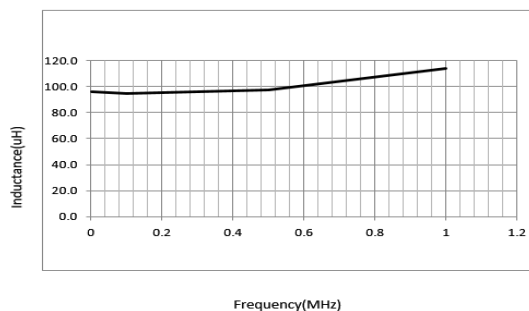
Inductance vs DC current



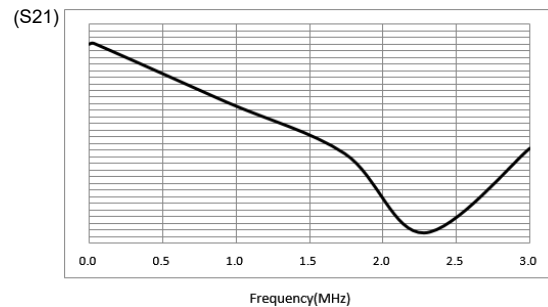
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