

SMD INDUCTOR

Fixed Inductor for Surface Mounting

SPE5020

SMD Magnetic-resin shielded type

UNIT : mm

TYPE SPE5020

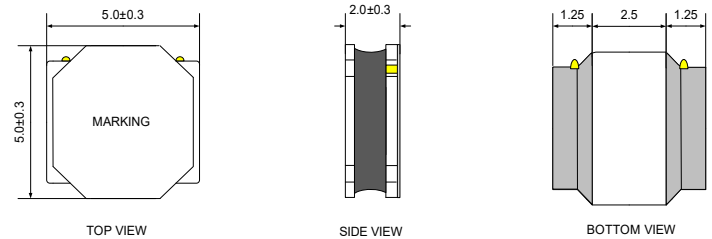
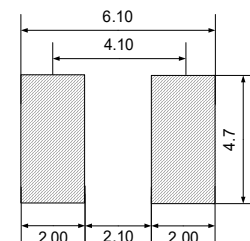
For Reflow Soldering

Frequency Range: 1kHz ~5MHz

Inductance Range: 0.75 ~ 100uH

Features

- *Low profile (2.0mm high)
- *Suitable for reflow soldering
- *Available on tape and reel for automatic insertion

Dimensions**Recommended PCB Pattern****Electrical Characteristics**

Ordering code	Inductance range (μH)	DCR(mΩ±30%)	Isat*1 (A,MAX)	Irms*2 (A,MAX)	Marking
SPE5020-R75N	0.75±30%	14	5.7	3.50	R75
SPE5020-1R2N	1.2±30%	18	4.2	3.20	1R2
SPE5020-1R5N	1.5±30%	23	4.0	3.00	1R5
SPE5020-2R2N	2.2±30%	27	3.4	2.85	2R2
SPE5020-3R0N	3.0±30%	35	2.8	2.40	3R0
SPE5020-3R6N	3.6±30%	40	2.7	2.30	3R6
SPE5020-4R7M	4.7±20%	45	2.2	1.98	4R7
SPE5020-5R6M	5.6±20%	66	2.1	1.90	5R6
SPE5020-6R8M	6.8±20%	70	1.8	1.80	6R8
SPE5020-7R5M	7.5±20%	80	1.7	1.70	7R5
SPE5020-100M	10±20%	110	1.5	1.44	100
SPE5020-120M	12±20%	140	1.3	1.40	120
SPE5020-150M	15±20%	160	1.2	1.35	150
SPE5020-180M	18±20%	210	1.1	1.15	180
SPE5020-220M	22±20%	300	1.0	1.00	220
SPE5020-330M	33±20%	390	0.8	0.75	330
SPE5020-470M	47±20%	630	0.7	0.65	470
SPE5020-560M	56±20%	685	0.6	0.60	560
SPE5020-680M	68±20%	790	0.55	0.55	680
SPE5020-820M	82±20%	1.06Ω	0.50	0.52	820
SPE5020-101M	100±20%	1.22Ω	0.45	0.50	101

***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

※Test Equipment

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

*DCR Meter : ABM3245 (20mΩ~2MΩ)

*Bias Current : Agilent 4284A + Agilent 42841A

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

Revised 20/04/21

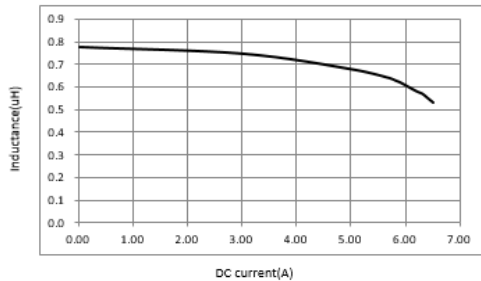
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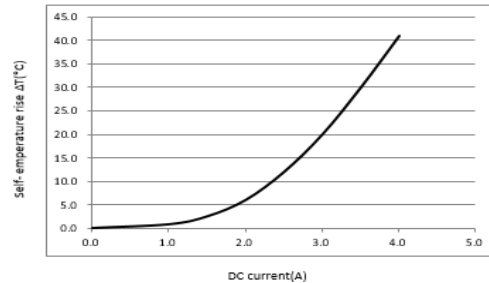
SPE5020

*SPE5020-R75N

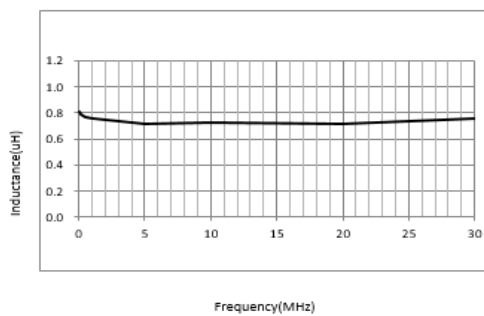
Inductance vs DC current



DC current vs Temperature

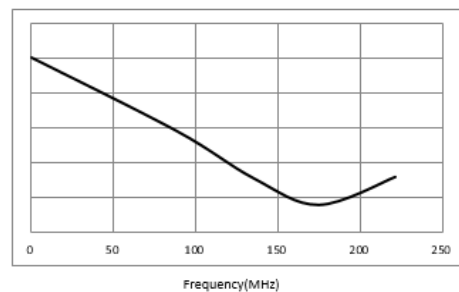


Inductance vs Frequency



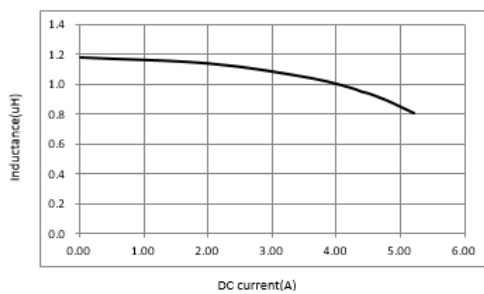
SRF(Self Resonance Frequency)

(S21)

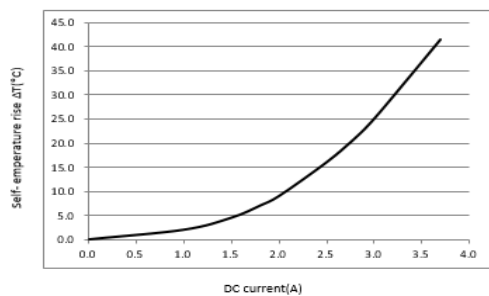


*SPE5020-1R2N

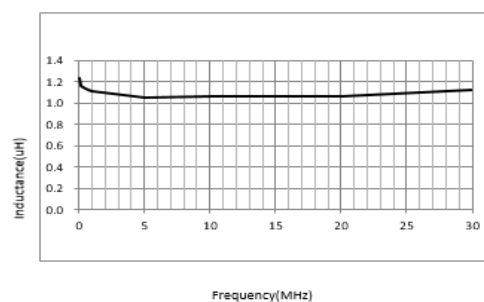
Inductance vs DC current



DC current vs Temperature

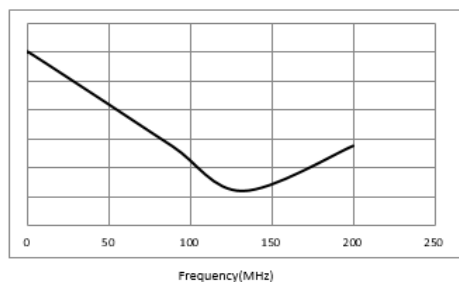


Inductance vs Frequency



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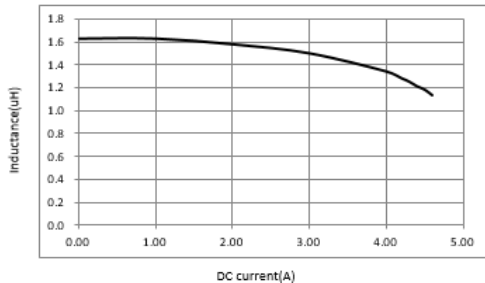
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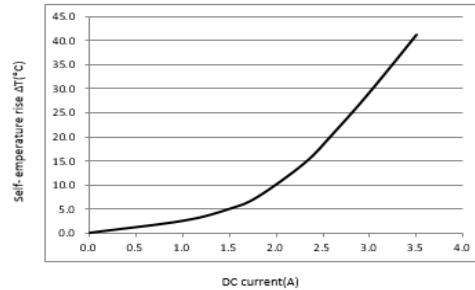
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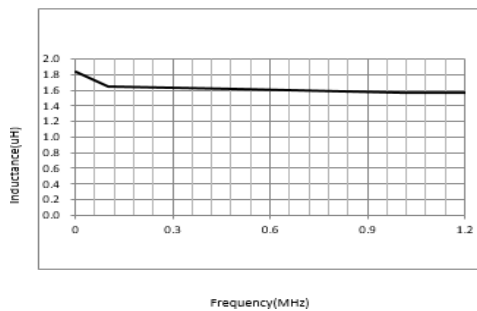
Inductance vs DC current



DC current vs Temperature

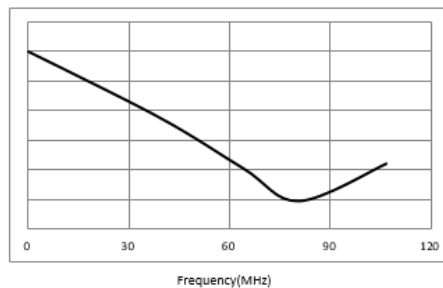


Inductance vs Frequency



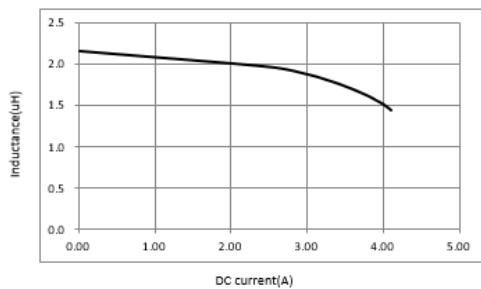
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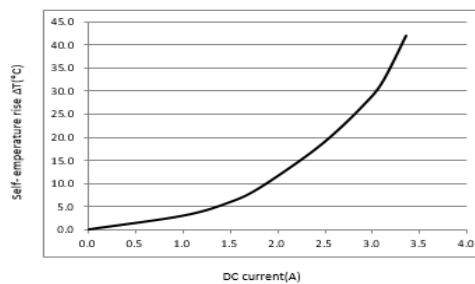


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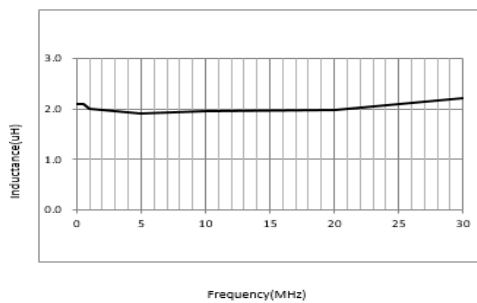
Inductance vs DC current



DC current vs Temperature

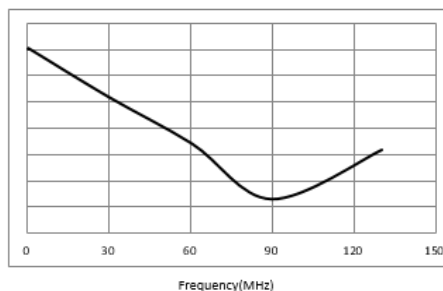


Inductance vs Frequency



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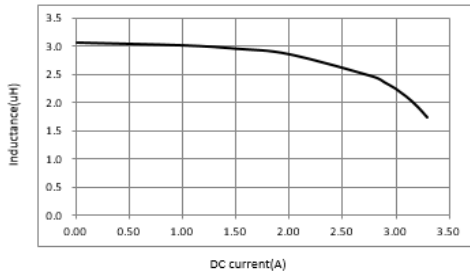
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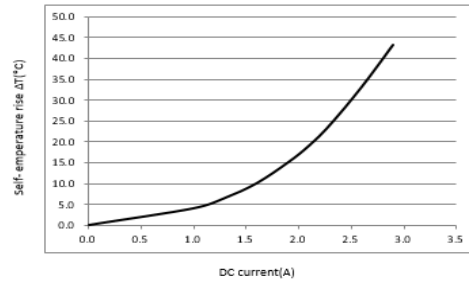
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*SPE5020-3R0N

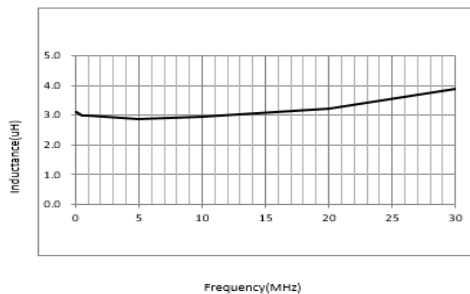
Inductance vs DC current



DC current vs Temperature

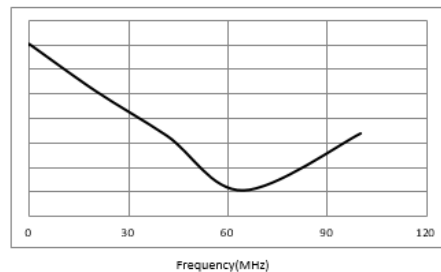


Inductance vs Frequency



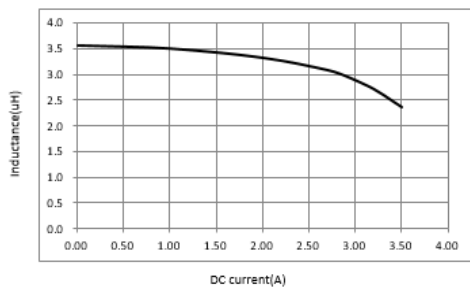
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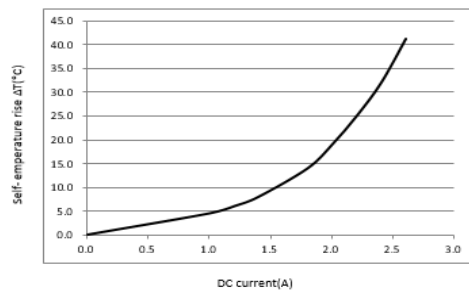


*SPE5020-3R6N

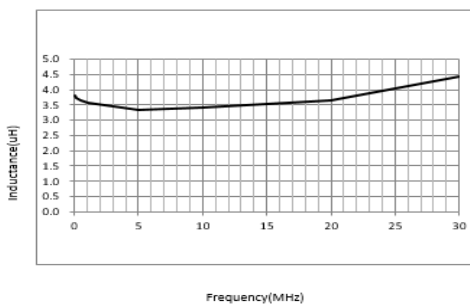
Inductance vs DC current



DC current vs Temperature

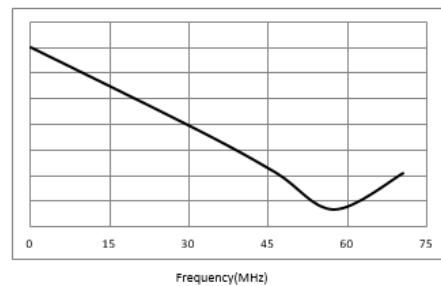


Inductance vs Frequency



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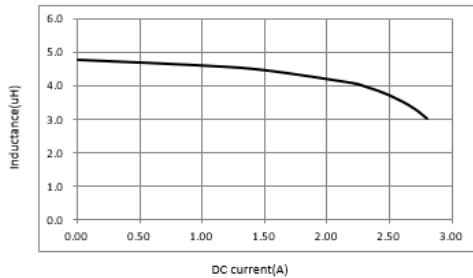
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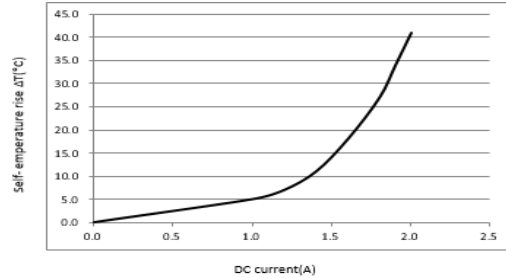
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*SPE5020-4R7M

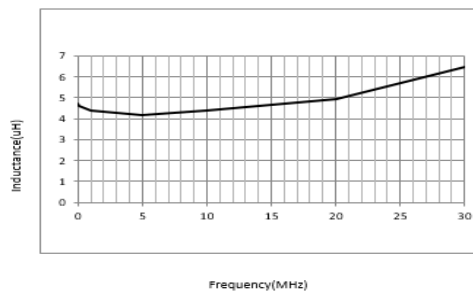
Inductance vs DC current



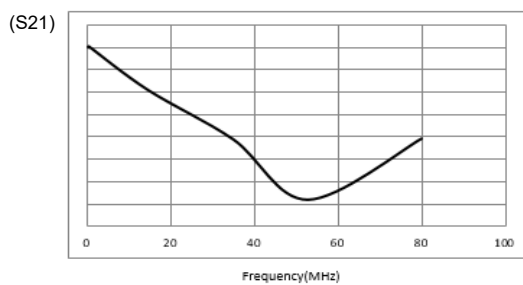
DC current vs Temperature



Inductance vs Frequency

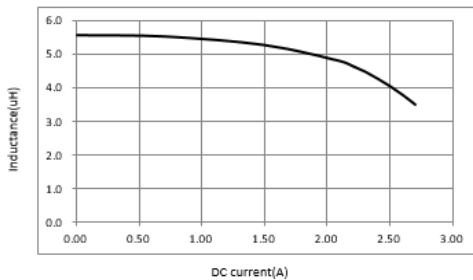


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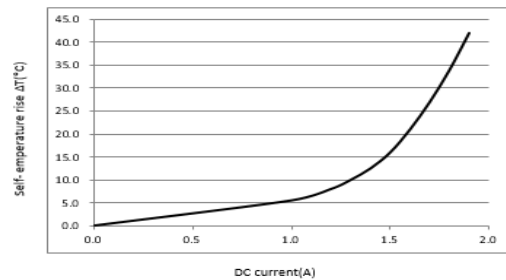


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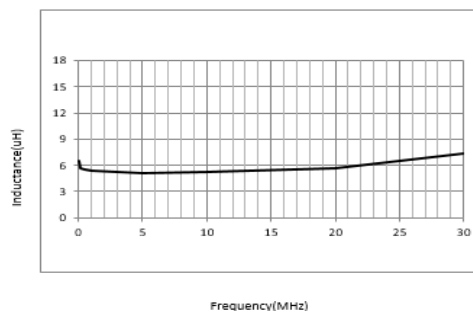
Inductance vs DC current



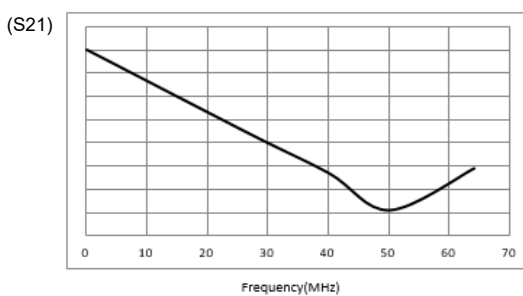
DC current vs Temperature



Inductance vs Frequency



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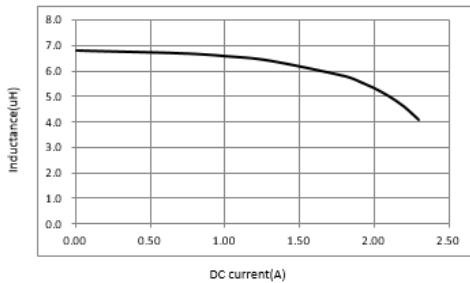
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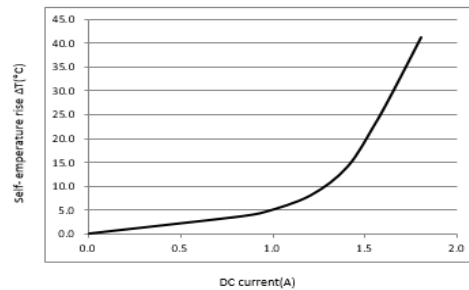
SPE5020

*SPE5020-6R8M

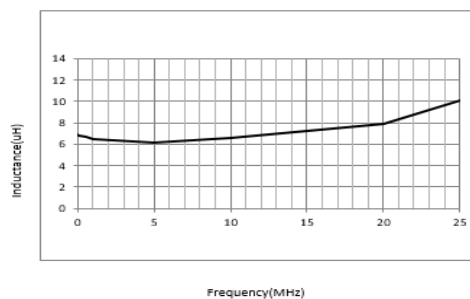
Inductance vs DC current



DC current vs Temperature

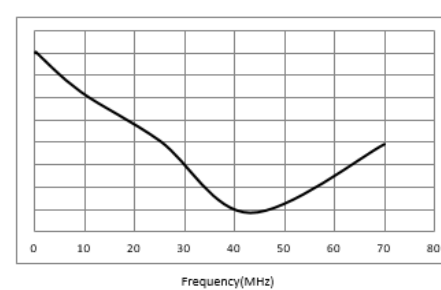


Inductance vs Frequency



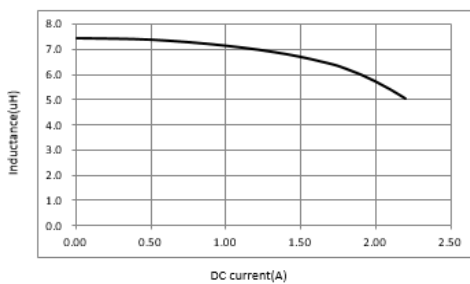
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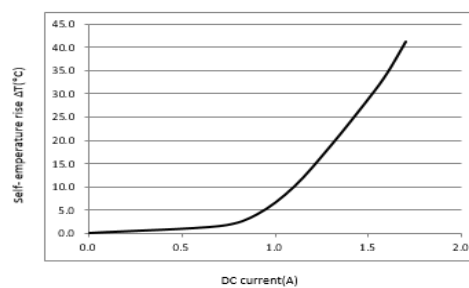


*SPE5020-7R5M

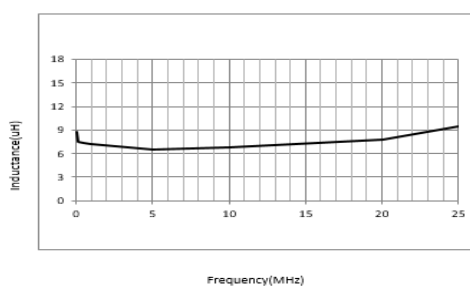
Inductance vs DC current



DC current vs Temperature

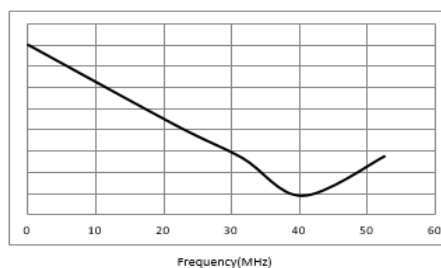


Inductance vs Frequency



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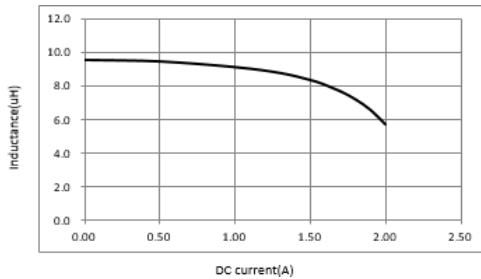
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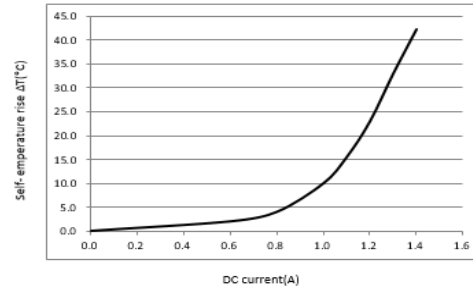
SPE5020

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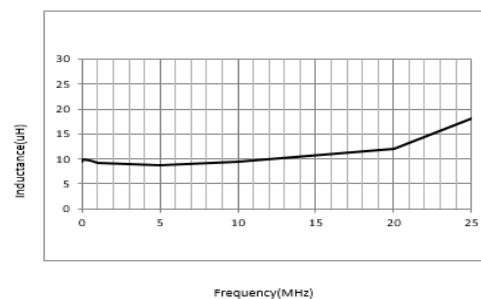
Inductance vs DC current



DC current vs Temperature

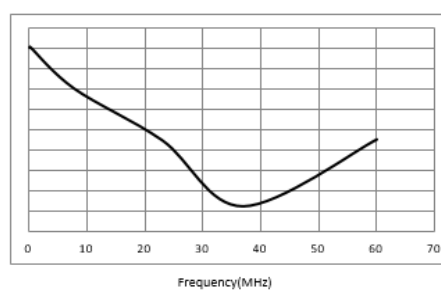


Inductance vs Frequency



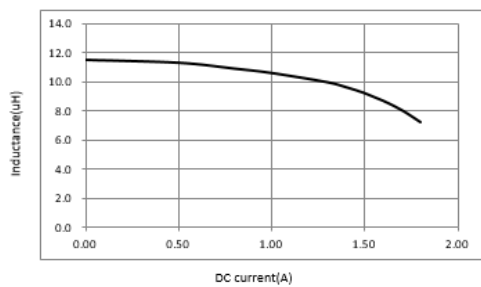
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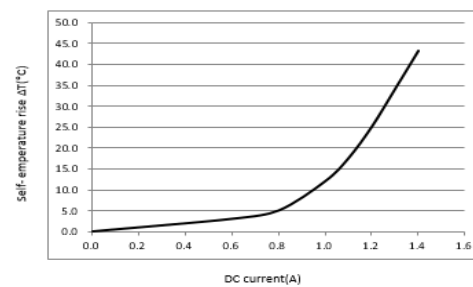


*SPE5020-120M

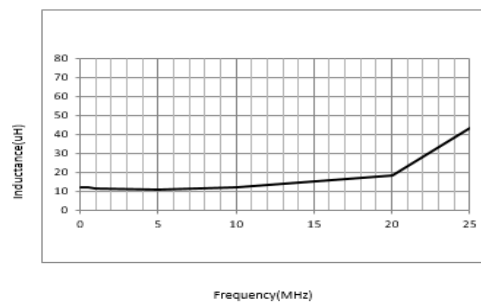
Inductance vs DC current



DC current vs Temperature

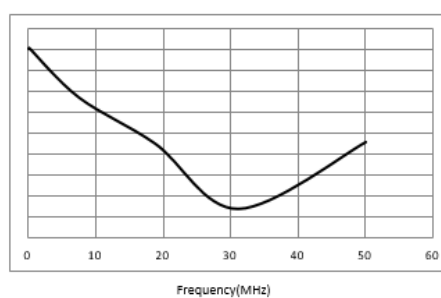


Inductance vs Frequency



SRF(Self Resonance Frequency)

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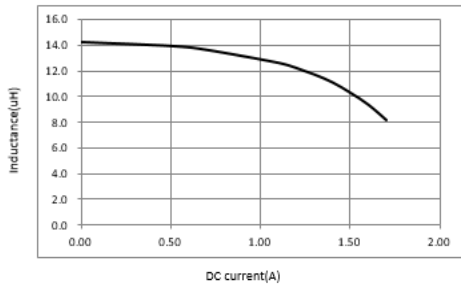
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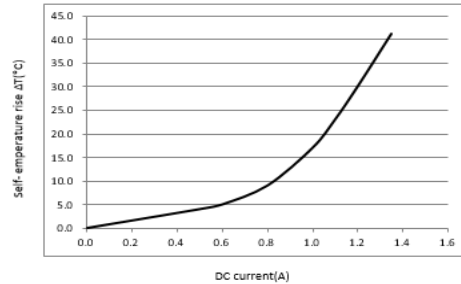
SPE5020

*SPE5020-150M

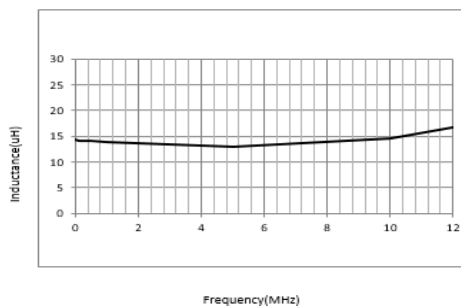
Inductance vs DC current



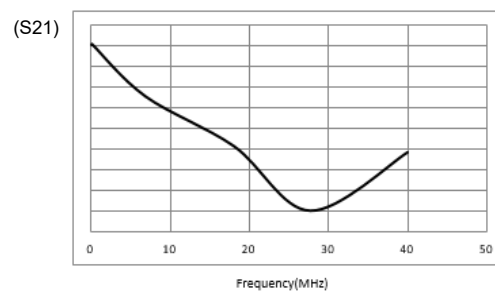
DC current vs Temperature



Inductance vs Frequency

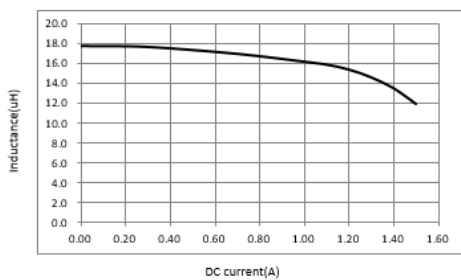


SRF(Self Resonance Frequency)

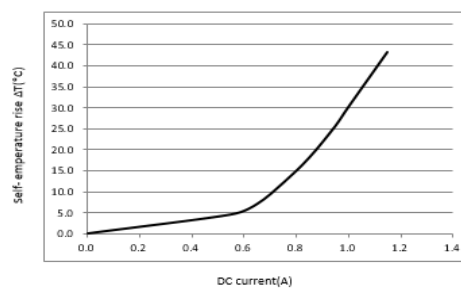


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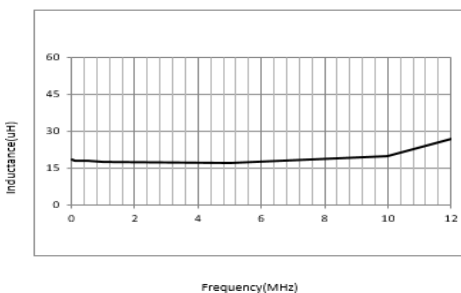
Inductance vs DC current



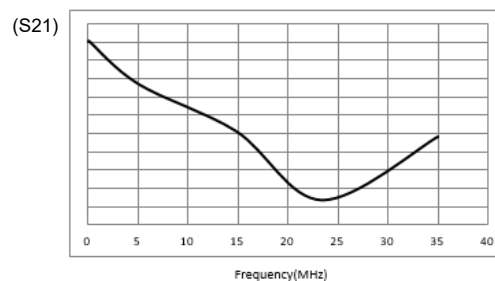
DC current vs Temperature



Inductance vs Frequency



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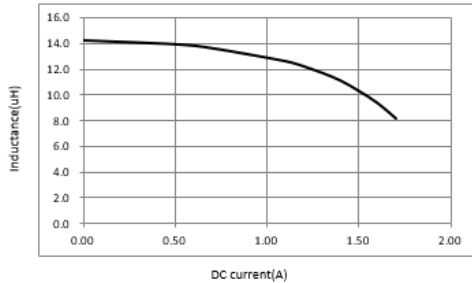
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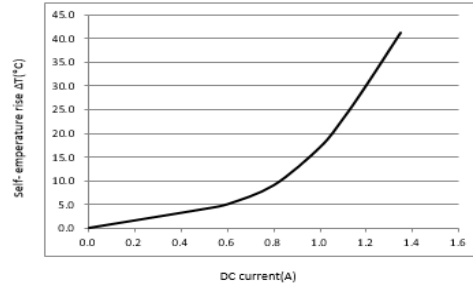
SPE5020

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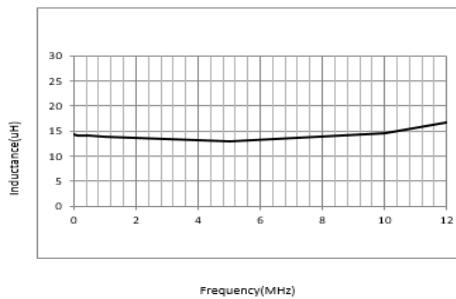
Inductance vs DC current



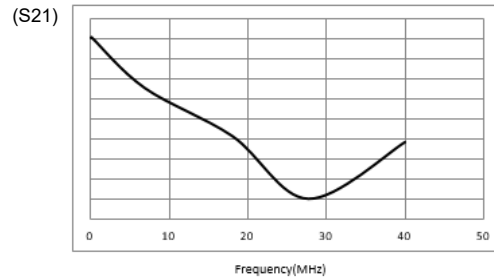
DC current vs Temperature



Inductance vs Frequency

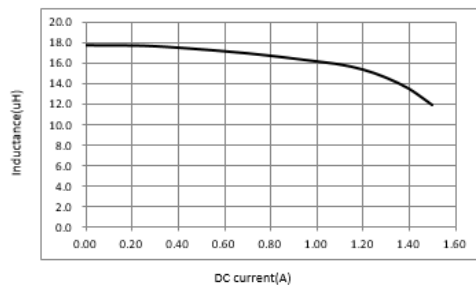


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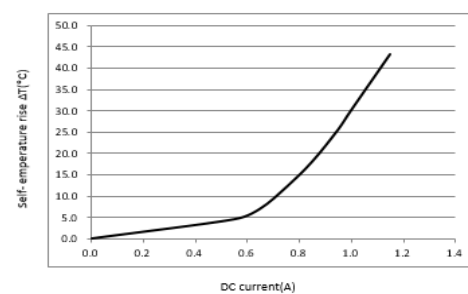


*SPE5020-180M

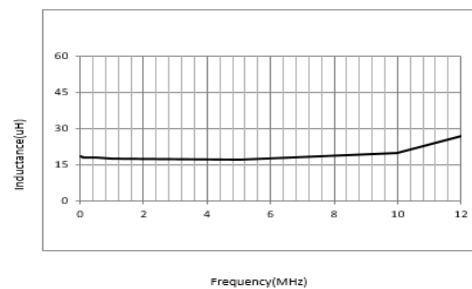
Inductance vs DC current



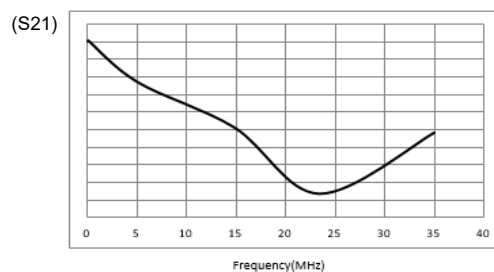
DC current vs Temperature



Inductance vs Frequency



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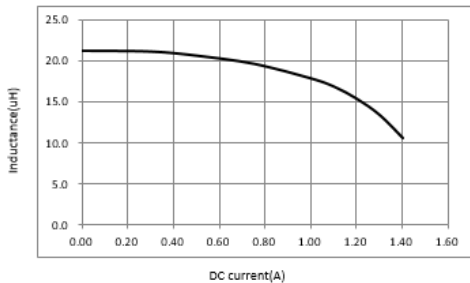
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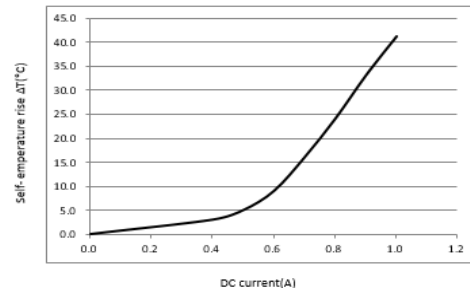
SPE5020

*SPE5020-220M

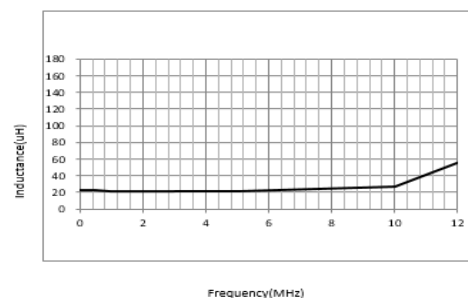
Inductance vs DC current



DC current vs Temperature

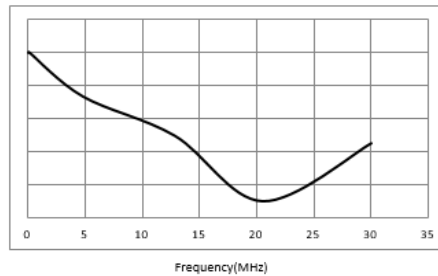


Inductance vs Frequency



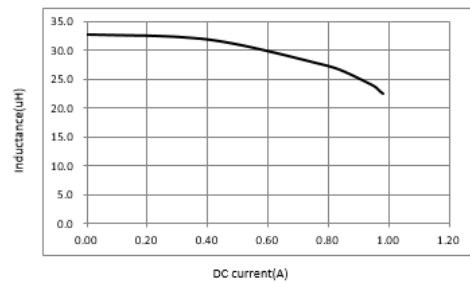
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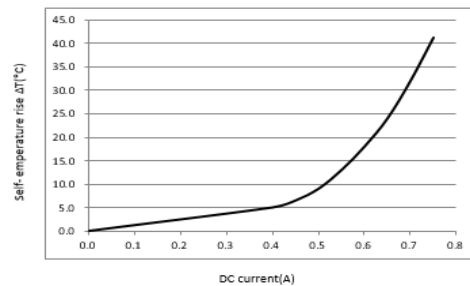


*SPE5020-330M

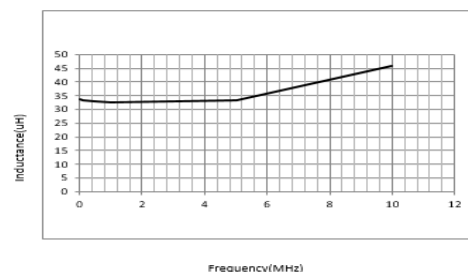
Inductance vs DC current



DC current vs Temperature

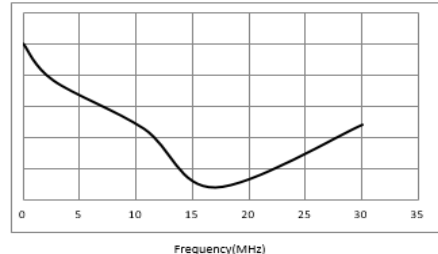


Inductance vs Frequency



SRF(Self Resonance Frequency)

(S21)



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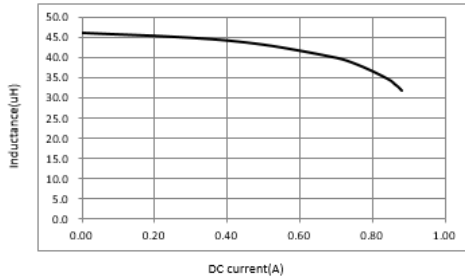
SMD Power Inductors

Fixed Inductor for Surface Mounting

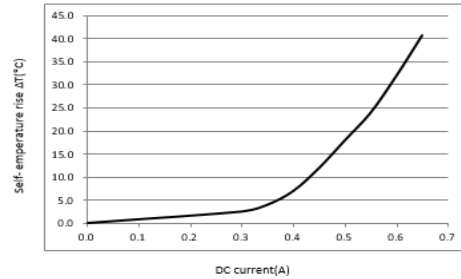
SPE5020

*SPE5020-470M

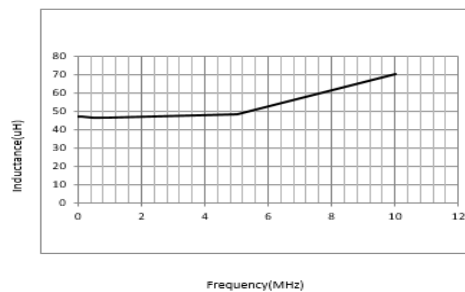
Inductance vs DC current



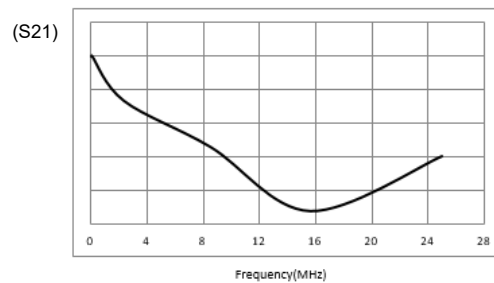
DC current vs Temperature



Inductance vs Frequency

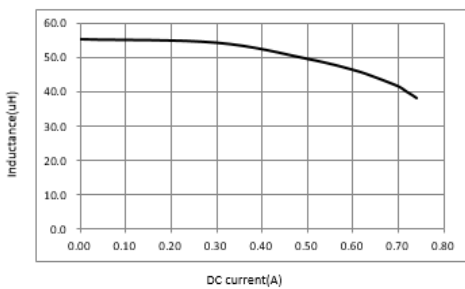


SRF(Self Resonance Frequency)

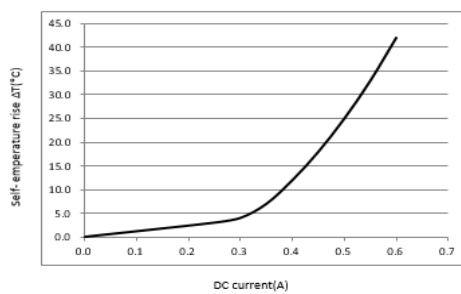


*SPE5020-560M

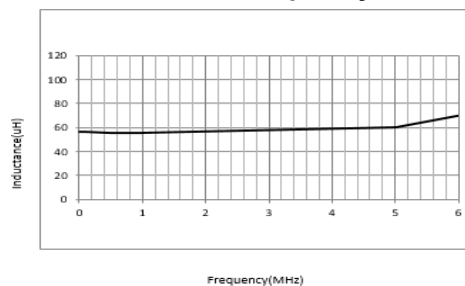
Inductance vs DC current



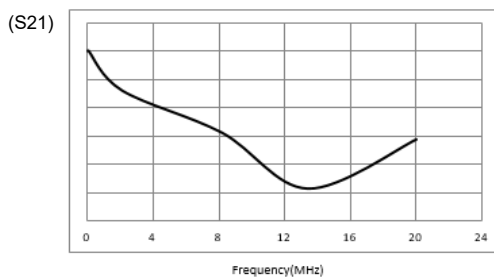
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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Revised 10/18/21

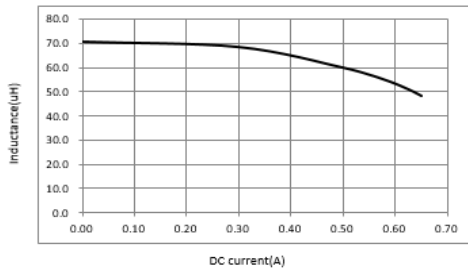
SMD Power Inductors

Fixed Inductor for Surface Mounting

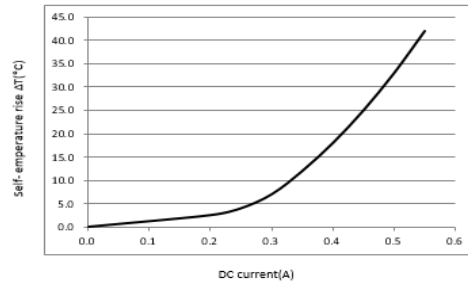
SPE5020

*SPE5020-680M

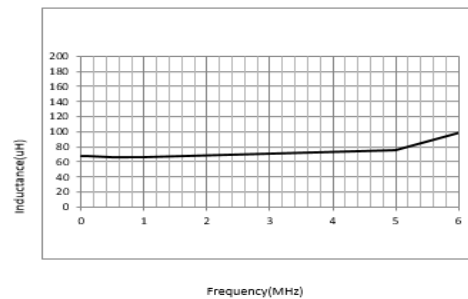
Inductance vs DC current



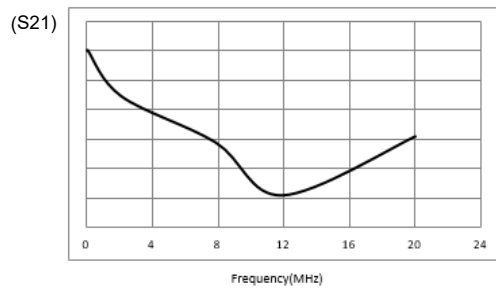
DC current vs Temperature



Inductance vs Frequency

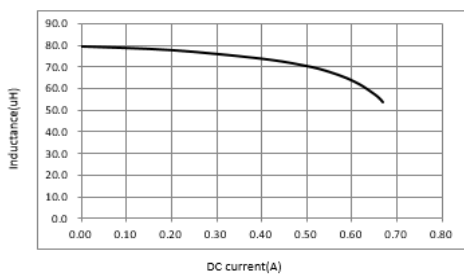


SRF(Self Resonance Frequency)

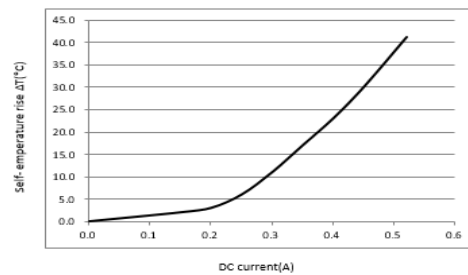


*SPE5020-820M

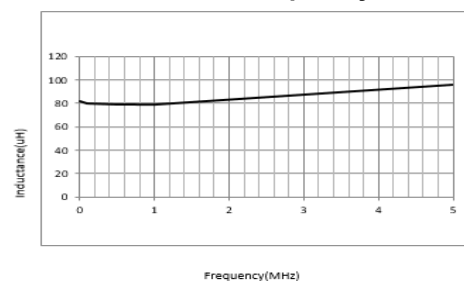
Inductance vs DC current



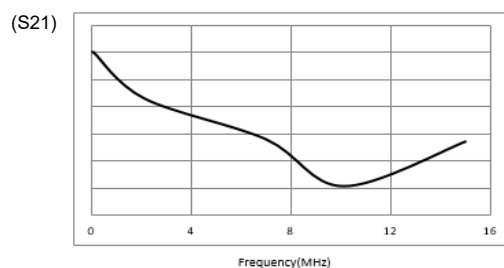
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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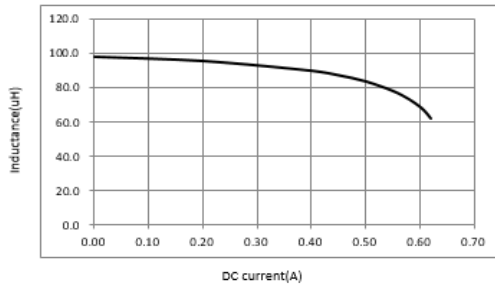
SMD Power Inductors

Fixed Inductor for Surface Mounting

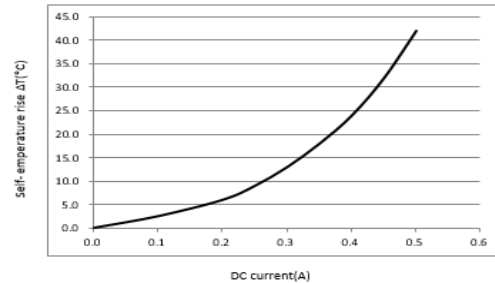
SPE5020

*SPE5020-101M

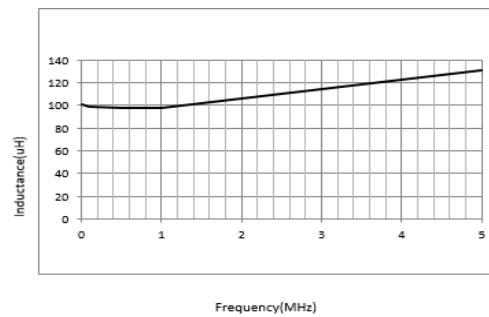
Inductance vs DC current



DC current vs Temperature

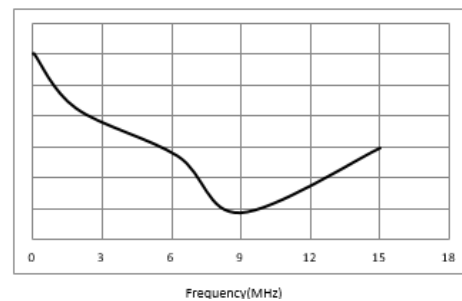


Inductance vs Frequency



SRF(Self Resonance Frequency)

(S21)



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Revised 10/18/21