

SMD INDUCTOR

Fixed Inductor for Surface Mounting

SPE5040

SMD Magnetic-resin shielded type

UNIT : mm

TYPE SPE5040

For Reflow Soldering

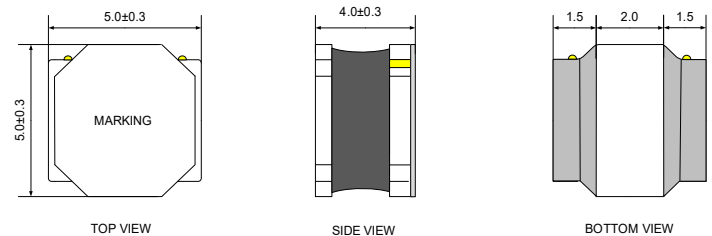
Frequency Range: 1kHz ~5MHz

Inductance Range: 1.0 ~ 2,200uH

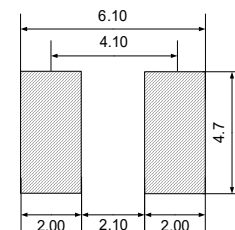
Features

- *Low profile (4.0mm high)
- *Suitable for reflow soldering
- *Available on tape and reel for automatic insertion
- *Qualified to AEC-Q200

Dimensions



Recommended PCB Pattern:



Electrical Characteristics

Ordering code	Inductance range (μH)	DCR(mΩ±30%)	Isat*1 (A,MAX)	Irms*2 (A,MAX)	Marking
SPE5040-1R0N	1.0±30%	14	7.0	4.8	1R0
SPE5040-1R5N	1.5±30%	16	6.0	4.2	1R5
SPE5040-1R8N	1.8±30%	18	5.5	4.0	1R8
SPE5040-2R2N	2.2±30%	22	5.1	3.8	2R2
SPE5040-3R3N	3.3±30%	24	4.2	3.4	3R3
SPE5040-3R6N	3.6±30%	28	4.1	3.2	3R6
SPE5040-4R7M	4.7±20%	31	3.5	3.0	4R7
SPE5040-5R6M	5.6±20%	37	3.2	2.8	5R6
SPE5040-6R8M	6.8±20%	40	2.7	2.5	6R8
SPE5040-8R2M	8.2±20%	57	2.4	2.2	8R2
SPE5040-100M	10±20%	60	2.3	2.1	100
SPE5040-150M	15±20%	100	1.9	1.7	150
SPE5040-220M	22±20%	135	1.6	1.4	220
SPE5040-330M	33±20%	220	1.2	1.0	330
SPE5040-470M	47±20%	275	1.0	0.75	470
SPE5040-560M	56±20%	395	0.9	0.70	560
SPE5040-680M	68±20%	440	0.8	0.55	680
SPE5040-820M	82±20%	545	0.75	0.50	820
SPE5040-101M	100±20%	610	0.65	0.35	101
SPE5040-221M	220±20%	1.65Ω	0.45	0.25	221
SPE5040-331M	330±20%	2.70Ω	0.35	0.20	331
SPE5040-102M	1,000±20%	6.20Ω	0.20	0.15	102
SPE5040-222M	2,200±20%	14.0Ω	0.11	0.10	222

*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

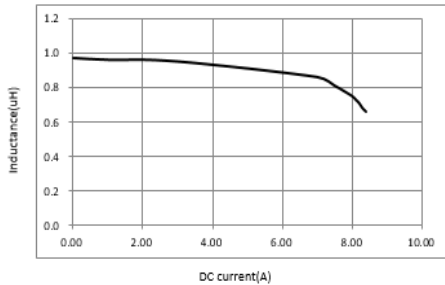
SMD Power Inductors

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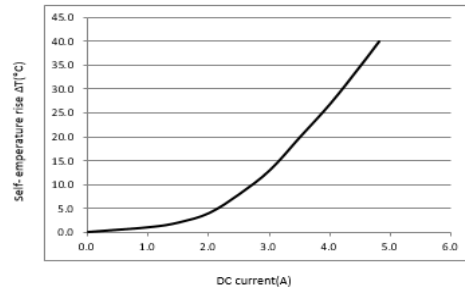
SPE5040

*SPE5040-1R0N

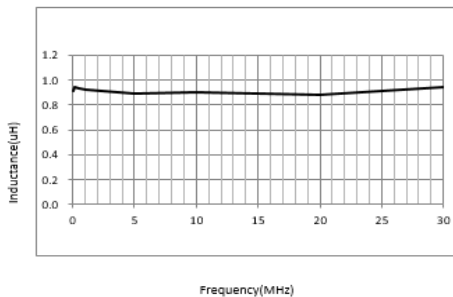
Inductance vs DC current



DC current vs Temperature

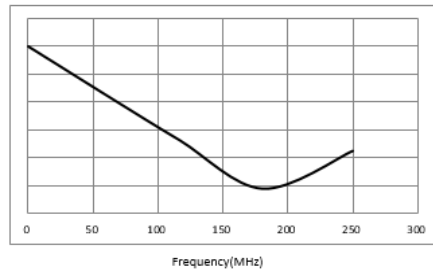


Inductance vs Frequency



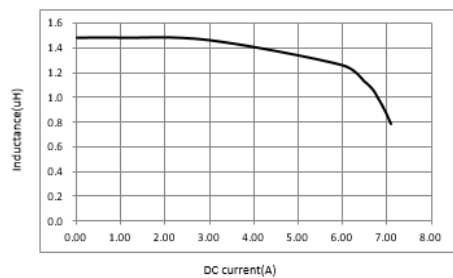
SRF(Self Resonance Frequency)

(S21)

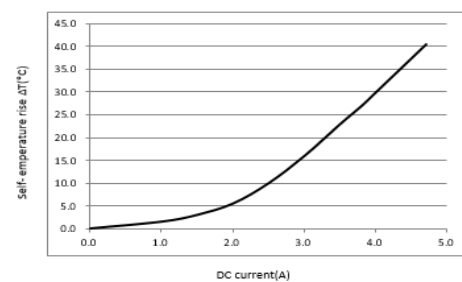


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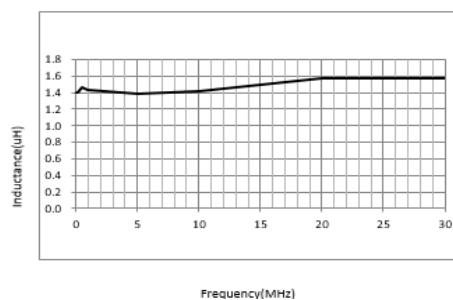
Inductance vs DC current



DC current vs Temperature

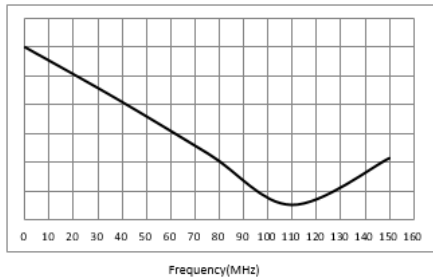


Inductance vs Frequency



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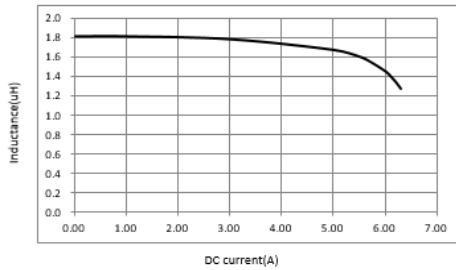
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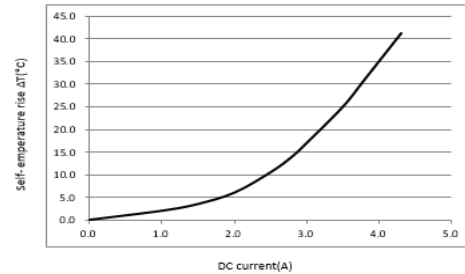
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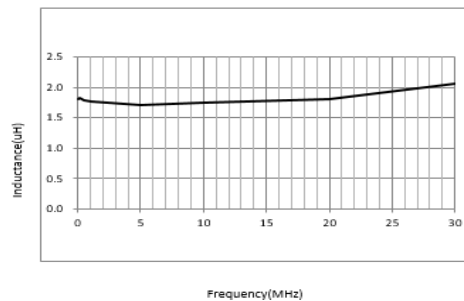
Inductance vs DC current



DC current vs Temperature

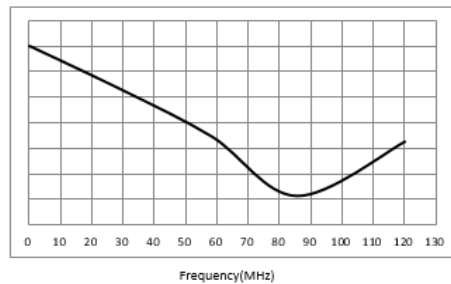


Inductance vs Frequency



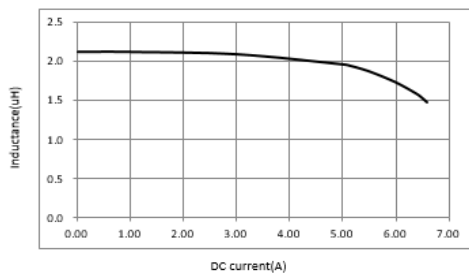
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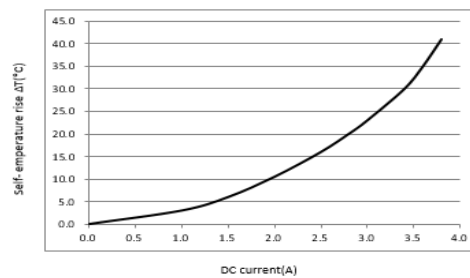


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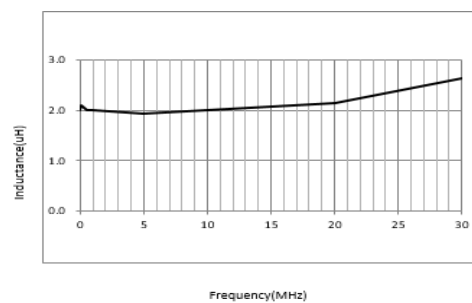
Inductance vs DC current



DC current vs Temperature

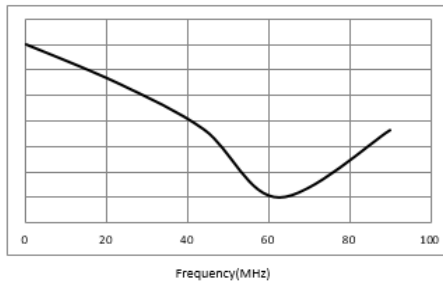


Inductance vs Frequency



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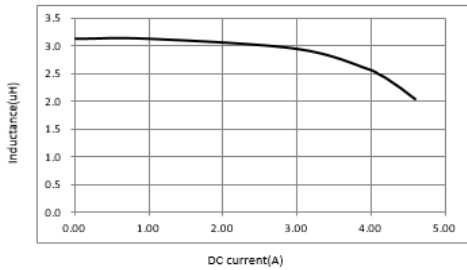
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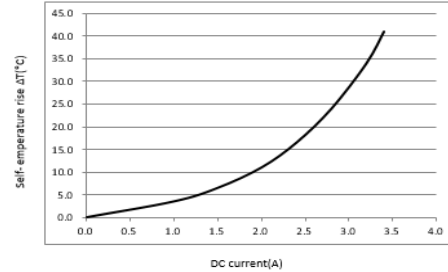
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*SPE5040-3R3N

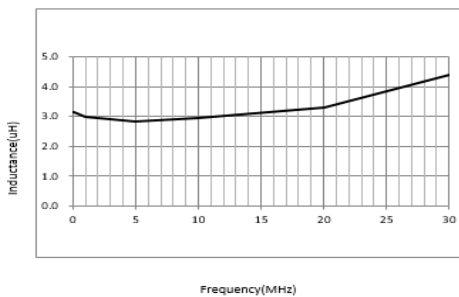
Inductance vs DC current



DC current vs Temperature

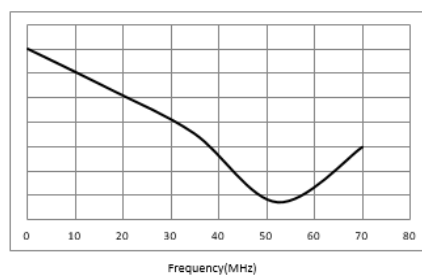


Inductance vs Frequency



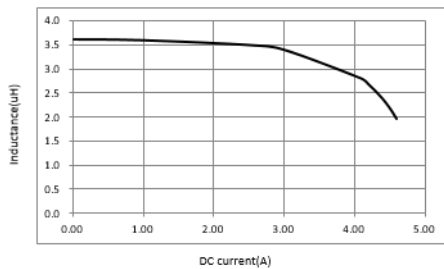
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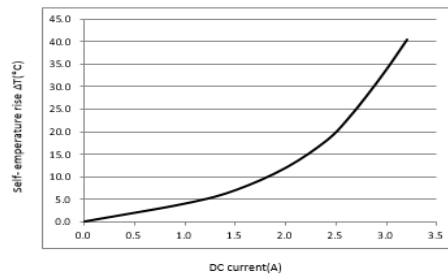


*SPE5040-3R6N

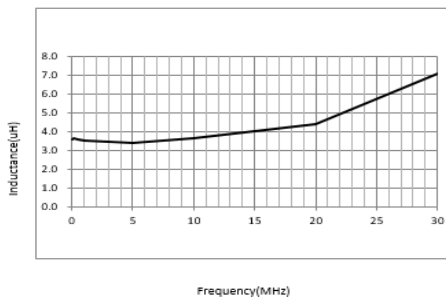
Inductance vs DC current



DC current vs Temperature

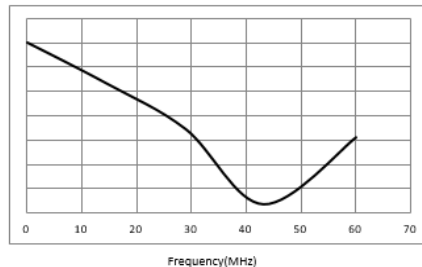


Inductance vs Frequency



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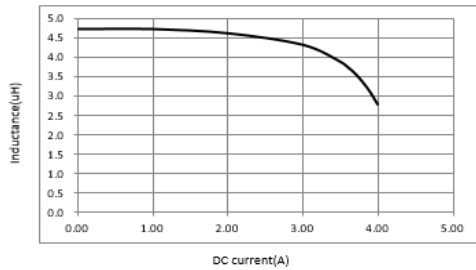
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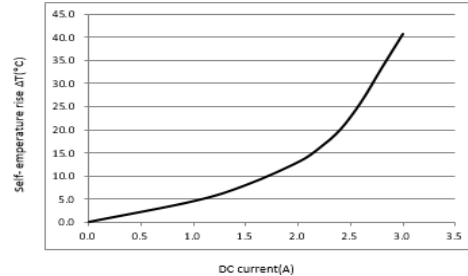
SPE5040

*SPE5040-4R7M

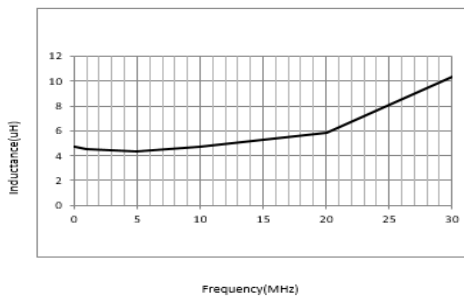
Inductance vs DC current



DC current vs Temperature

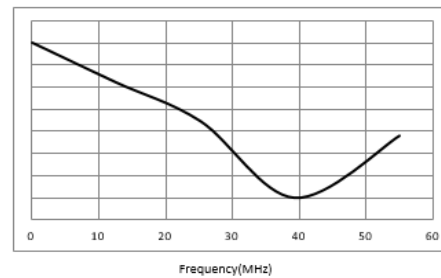


Inductance vs Frequency



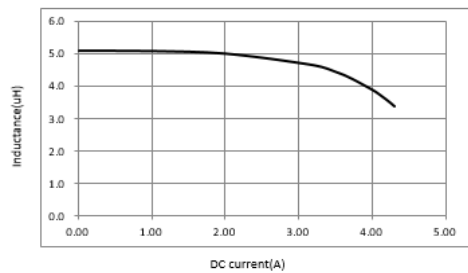
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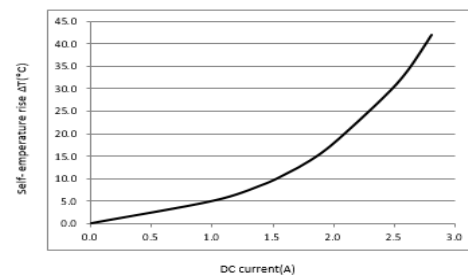


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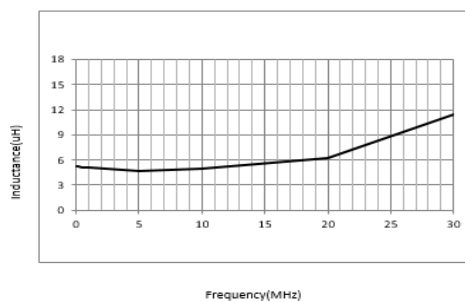
Inductance vs DC current



DC current vs Temperature

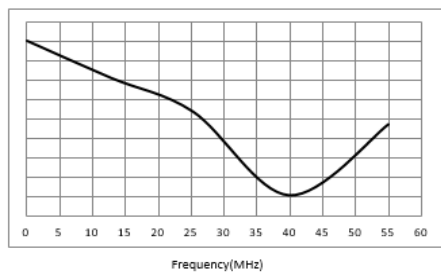


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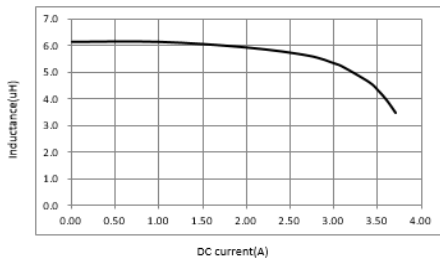
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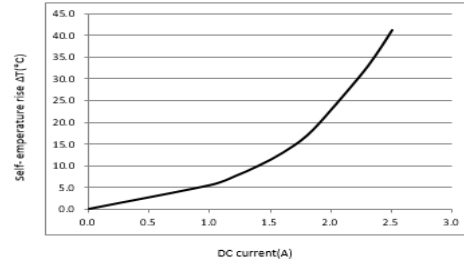
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*SPE5040-6R8M

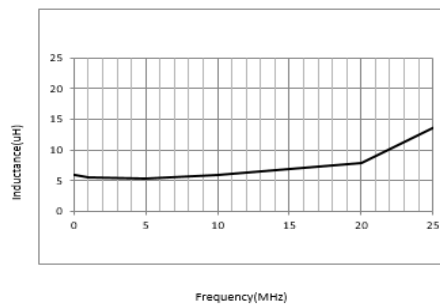
Inductance vs DC current



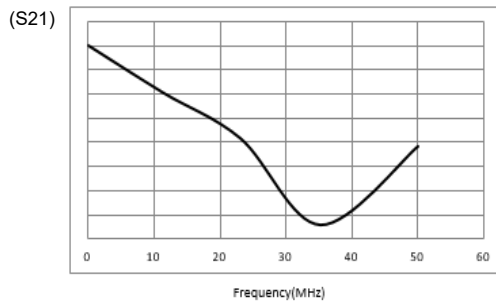
DC current vs Temperature



Inductance vs Frequency

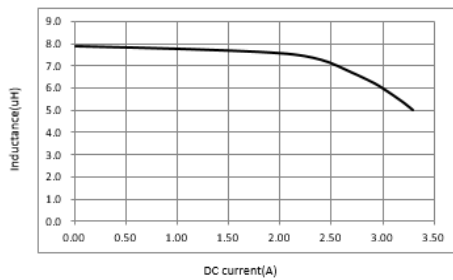


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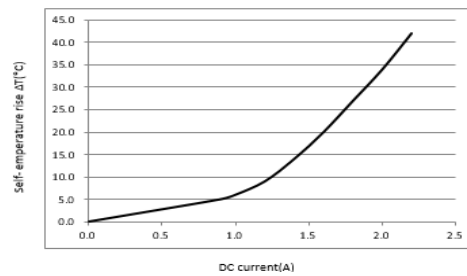


*SPE5040-8R2M

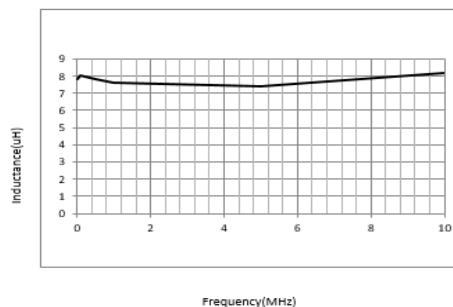
Inductance vs DC current



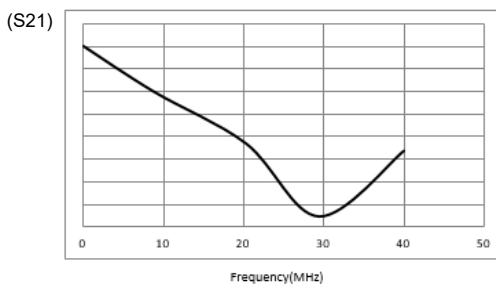
DC current vs Temperature



Inductance vs Frequency



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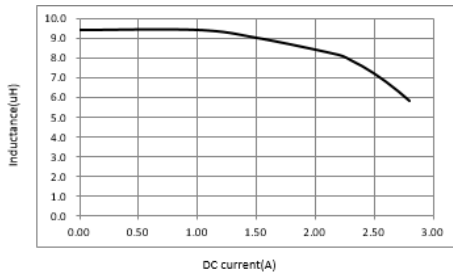
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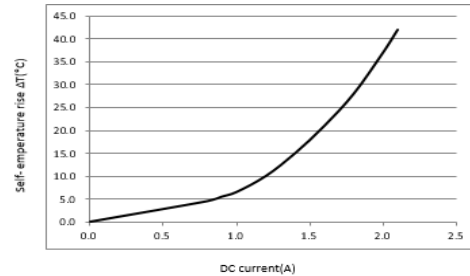
SPE5040

*SPE5040-100M

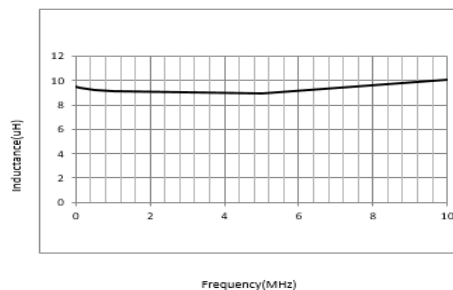
Inductance vs DC current



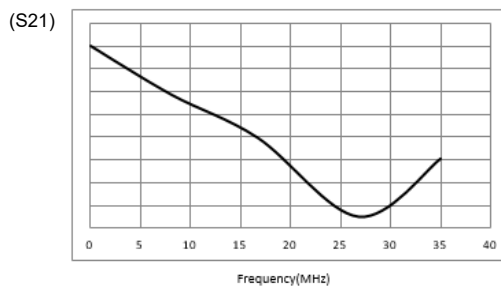
DC current vs Temperature



Inductance vs Frequency

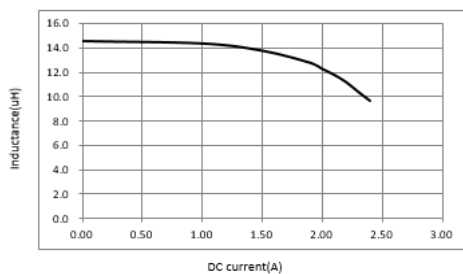


SRF(Self Resonance Frequency)

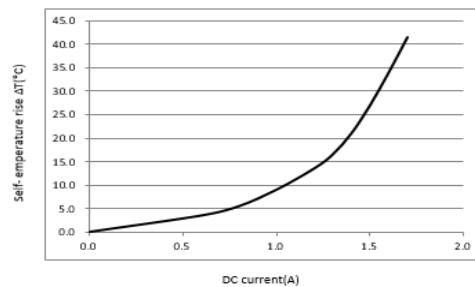


*SPE5040-150M

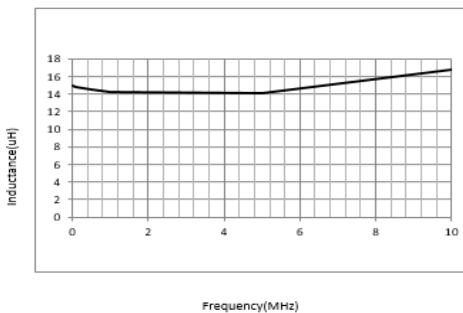
Inductance vs DC current



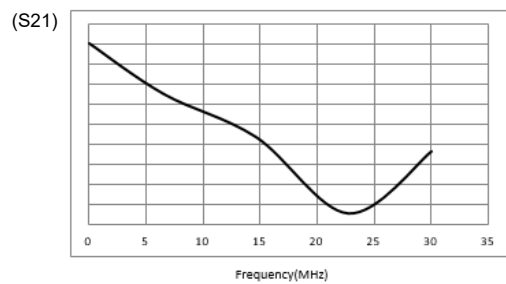
DC current vs Temperature



Inductance vs Frequency



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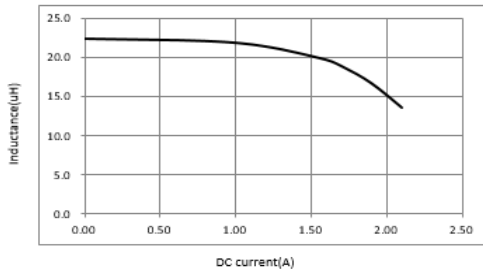
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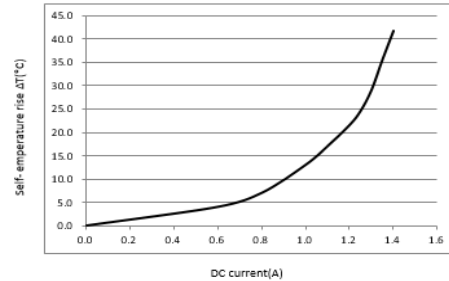
SPE5040

*SPE5040-220M

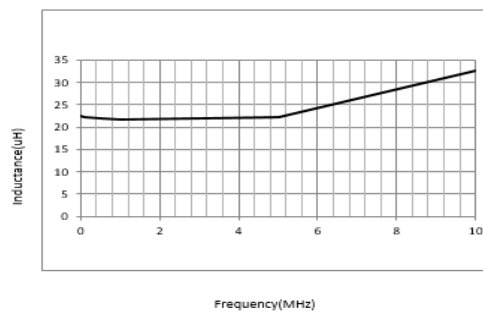
Inductance vs DC current



DC current vs Temperature

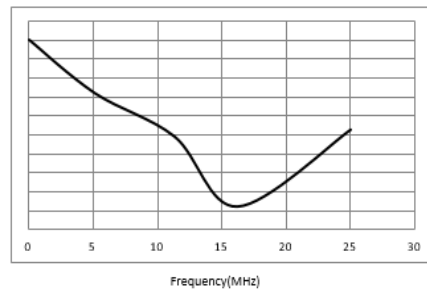


Inductance vs Frequency



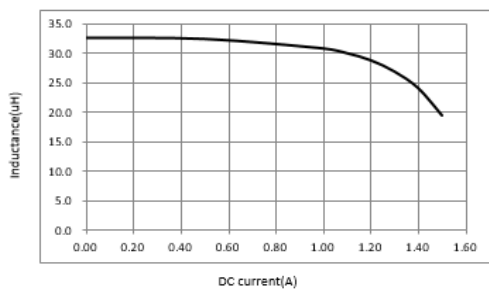
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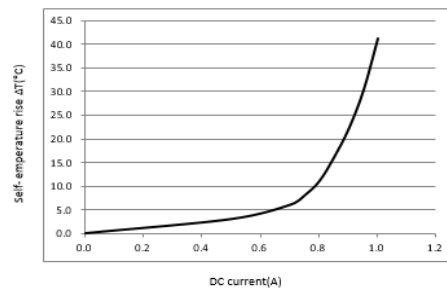


*SPE5040-330M

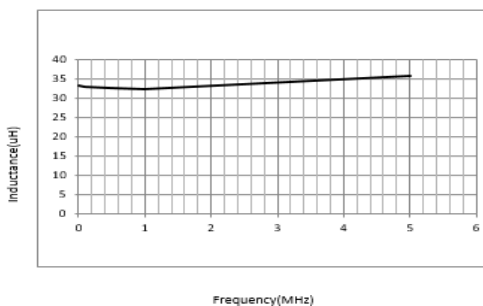
Inductance vs DC current



DC current vs Temperature

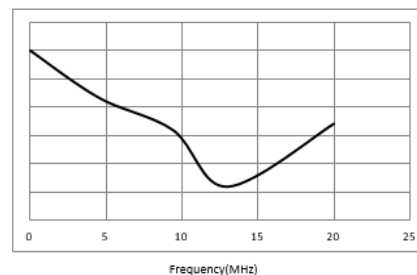


Inductance vs Frequency



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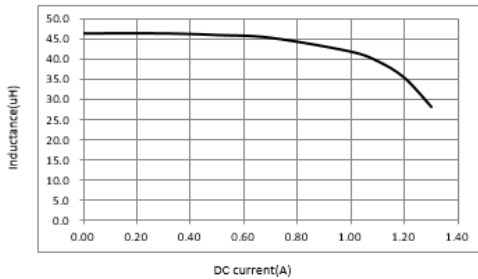
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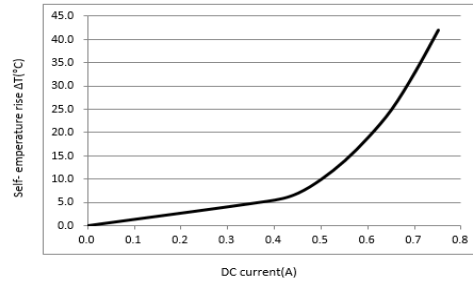
SPE5040

*SPE5040-470M

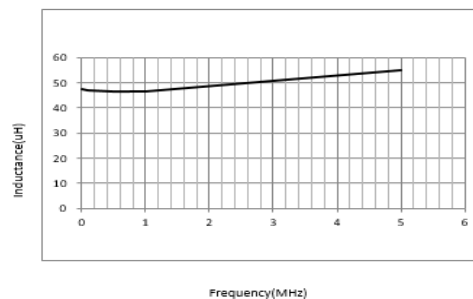
Inductance vs DC current



DC current vs Temperature

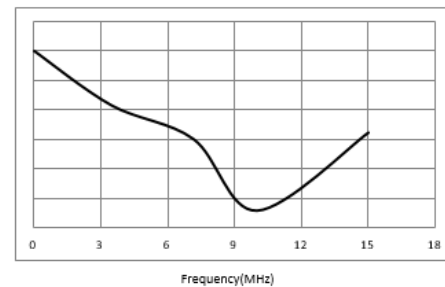


Inductance vs Frequency



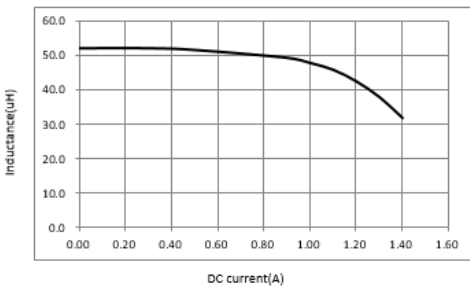
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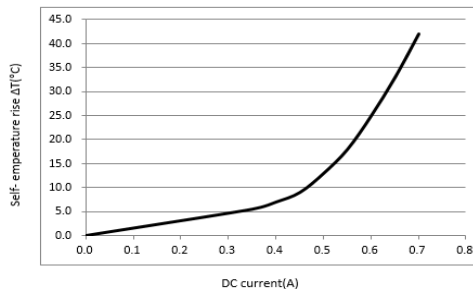


*SPE5040-560M

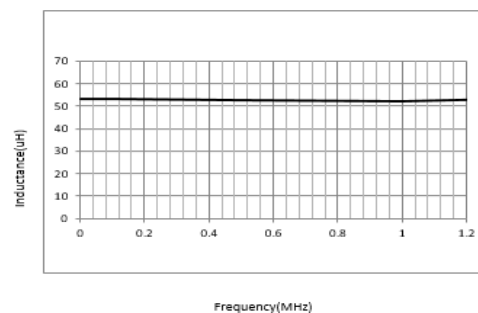
Inductance vs DC current



DC current vs Temperature

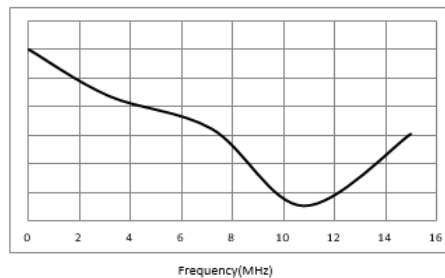


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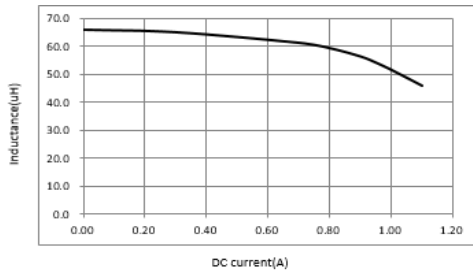
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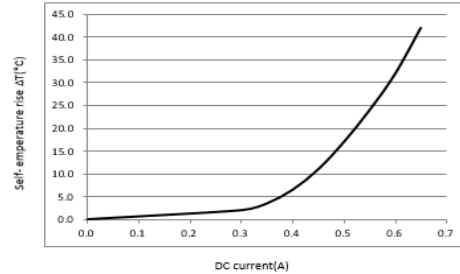
SPE5040

*SPE5040-680M

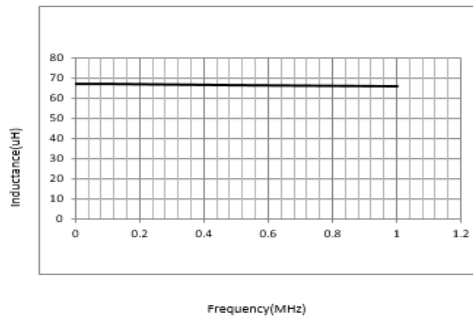
Inductance vs DC current



DC current vs Temperature

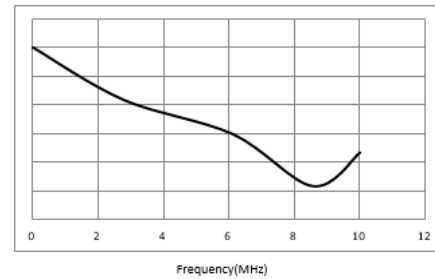


Inductance vs Frequency



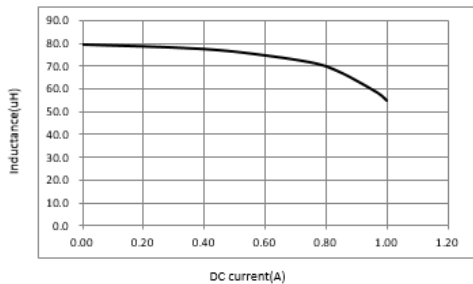
SRF(Self Resonance Frequency)

(S21)

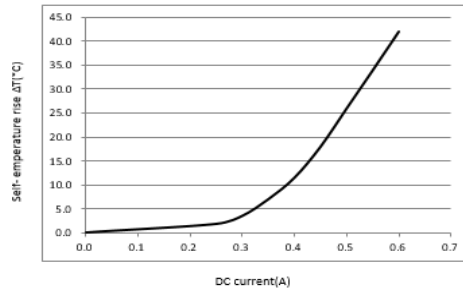


*SPE5040-820M

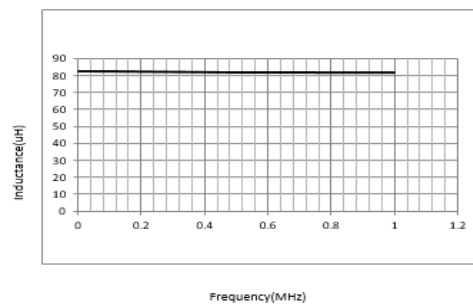
Inductance vs DC current



DC current vs Temperature

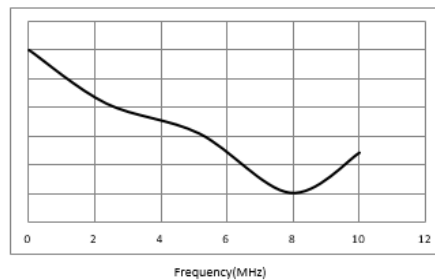


Inductance vs Frequency



SRF(Self Resonance Frequency)

(S21)



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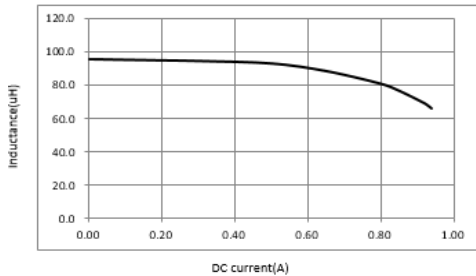
SMD Power Inductors

Fixed Inductor for Surface Mounting

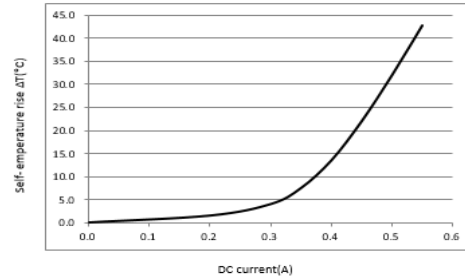
SPE5040

*SPE5040-101M

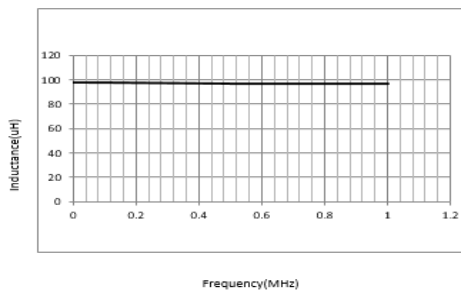
Inductance vs DC current



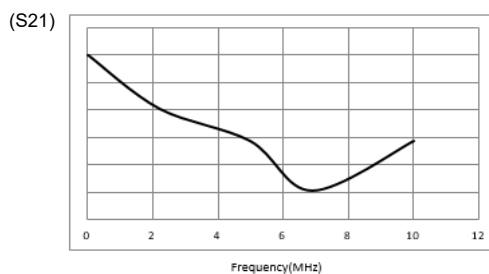
DC current vs Temperature



Inductance vs Frequency

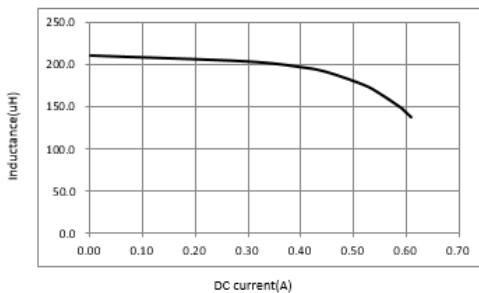


SRF(Self Resonance Frequency)

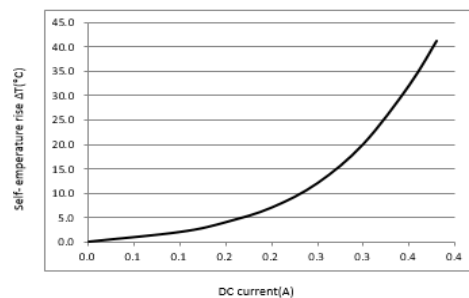


*SPE5040-221M

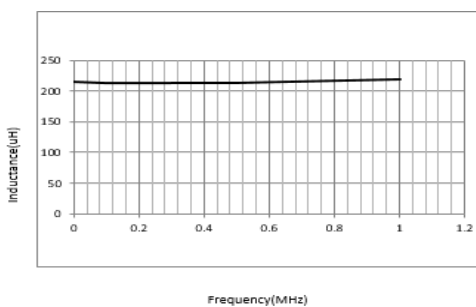
Inductance vs DC current



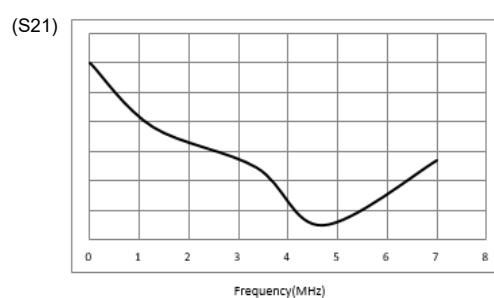
DC current vs Temperature



Inductance vs Frequency



SRF(Self Resonance Frequency)



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Revised 10/18/21

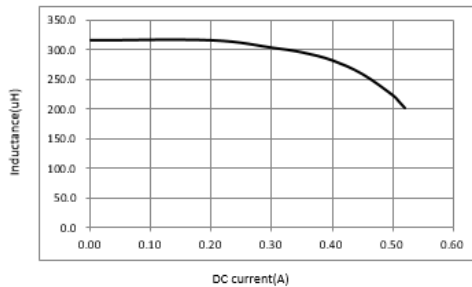
SMD Power Inductors

Fixed Inductor for Surface Mounting

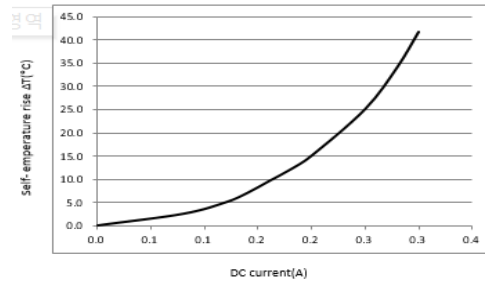
SPE5040

*SPE5040-331M

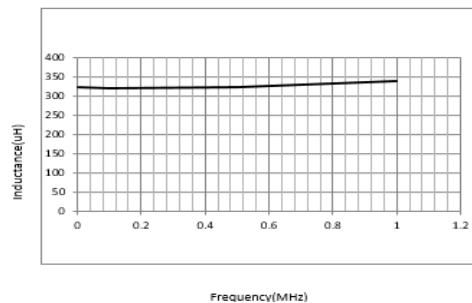
Inductance vs DC current



DC current vs Temperature

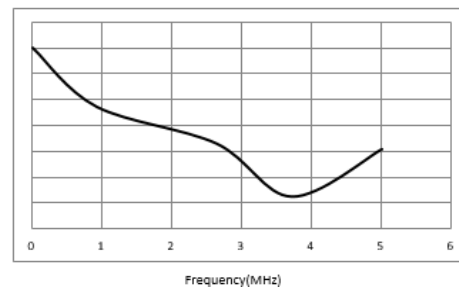


Inductance vs Frequency



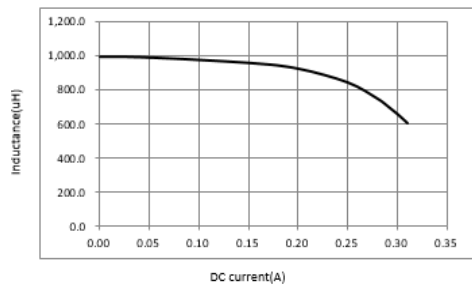
SRF(Self Resonance Frequency)

(S21)

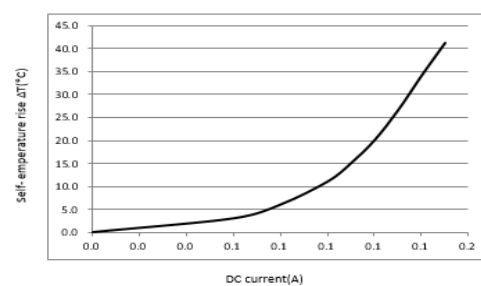


*SPE5040-102M

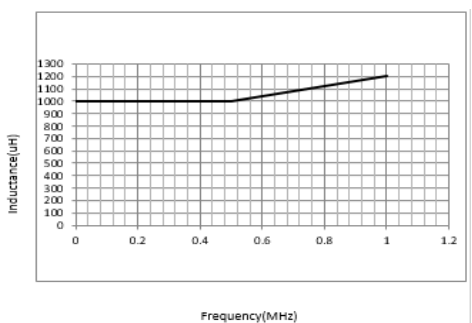
Inductance vs DC current



DC current vs Temperature

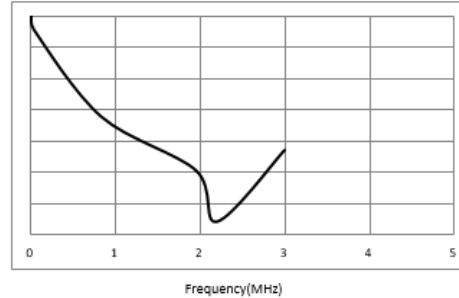


Inductance vs Frequency



SRF(Self Resonance Frequency)

(S21)



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