SM2518 Series High Current Inductor

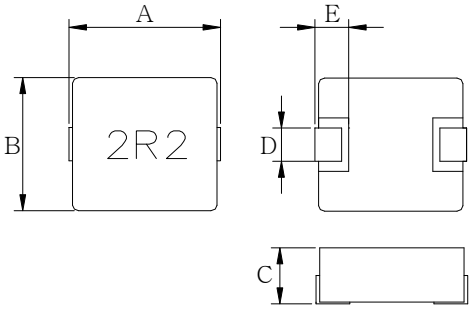
Features:

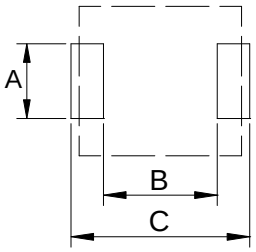
- Molded inductor structure; No audio noise.
- High saturation current realized by distributed gap metal dust core.
- Low profile: 5 mm max. Height.
- Working frequency up to 1 MHz.
- Ideal for DC/DC converters, PDA, notebook, and server applications.
- T&R quantity: 500 pieces per reel.

Electrical Specifications					
Part Number	L ± 20% @ 0A (μH)	DCR Typ. (mΩ)	DCR Max. (mΩ)	I_{rate} (Amps)	$I_{sat.}$ (Amps)
SM2518-R56MHF	0.56	3.4	3.6	20	12
SM2518-R68MHF	0.68	4.2	4.5	18	11.5
SM2518-R82MHF	0.82	4.6	4.9	16.5	13
SM2518-1R0MHF	1.0	5.6	6.5	13	15
SM2518-1R5MHF	1.5	8.6	9.0	12	12
SM2518-2R2MHF	2.2	13	13.6	10	10
SM2518-3R3MHF	3.3	19.9	20.9	8	8
SM2518-4R7MHF	4.7	28.9	30.3	6.5	7
SM2518-5R6MHF	5.6	32.7	34.4	6	7
SM2518-6R8MHF	6.8	42.5	44.6	5.5	5.5
SM2518-8R2MHF	8.2	43.5	45.6	5.5	5.5
SM2518-100MHF	10.0	67.9	71.3	4.5	4.5

Notes:

1. I_{rate}: DC current that will cause an approximate ΔT of 40 °C.
2. I_{sat}: DC current that will cause inductance to drop approximately by 20%.
3. Test conditions: 100 kHz, 0.25 V, 25 °C ambient temperature.
4. Operating Temperature Range: -55 °C ~ 150 °C.





Recommended PCB Layout

Mechanical Dimensions (Unit: mm)					
Part Number	A ±0.38	B ±0.25	C Max.	D ±0.3	E ±0.3
SM2518	6.86	6.47	5.0	3.18	1.3

Type	SM2518
A	3.43
B	3.71
C	7.37

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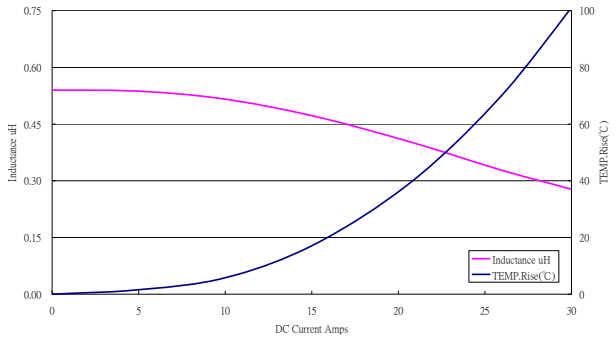
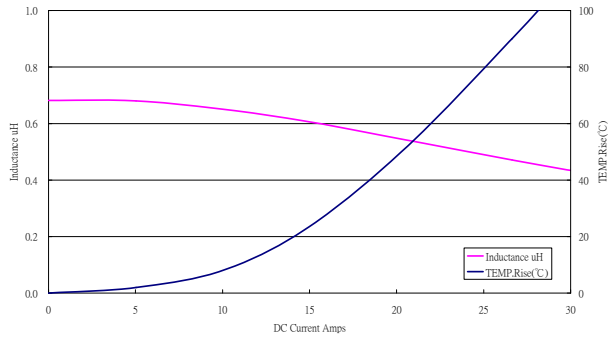
Inductance vs. DC Current vs. Temperature Rise Curve

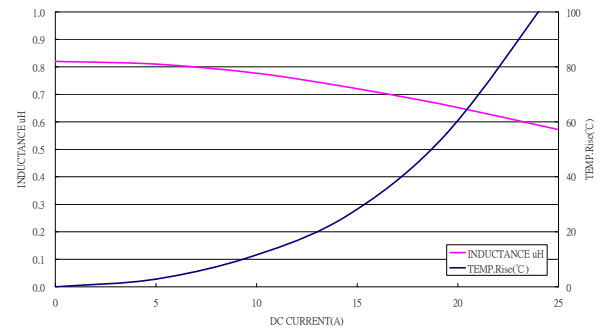
SM2518-R56MHF



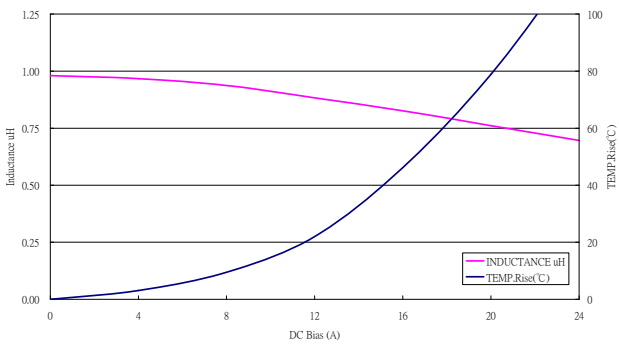
SM2518-R68MHF



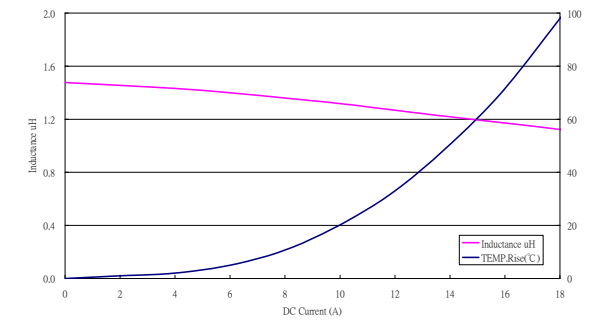
SM2518-R82MHF



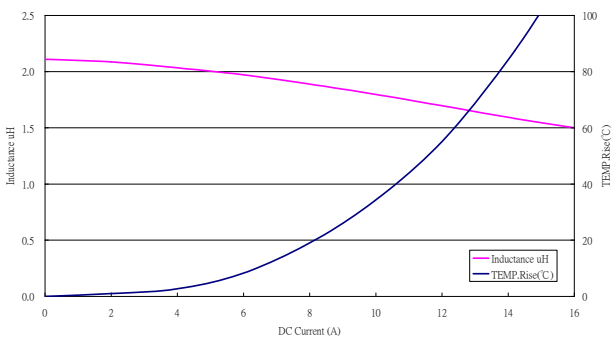
SM2518-1R0MHF



SM2518-1R5MHF

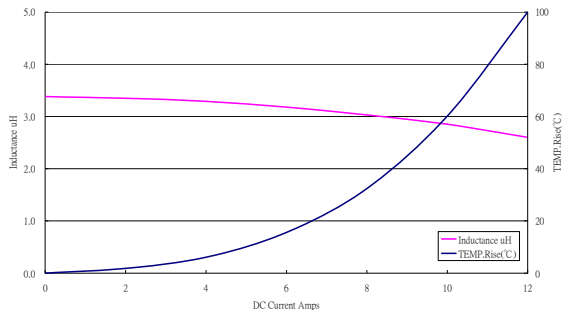


SM2518-2R2MHF

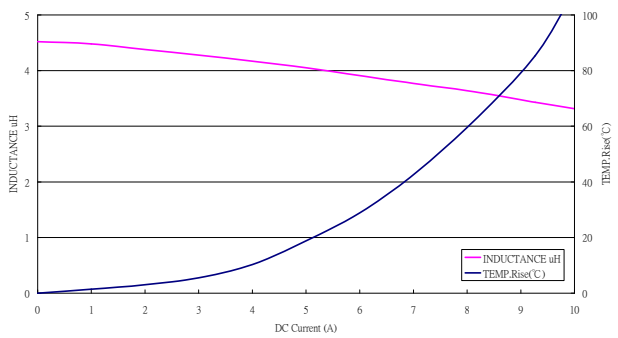


SM2518 Series High Current Inductor

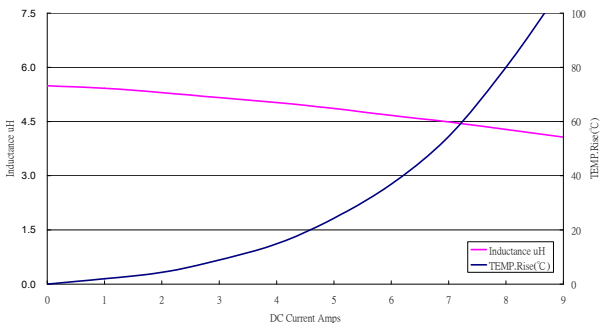
SM2518-3R3MHF



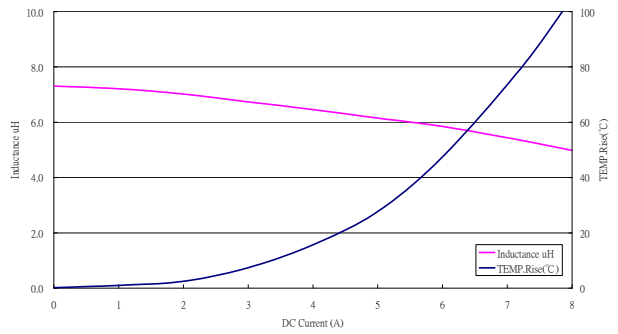
SM2518-4R7MHF



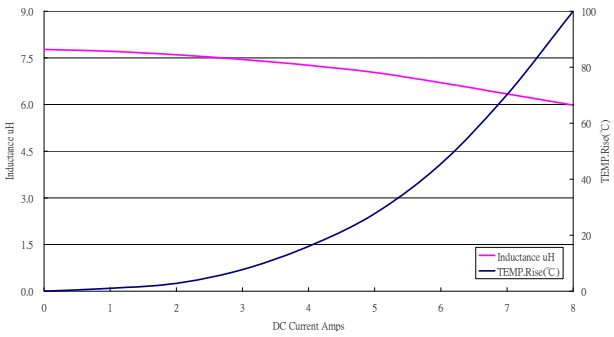
SM2518-5R6MHF



SM2518-6R8MHF



SM2518-8R2MHF



SM2518-100MHF