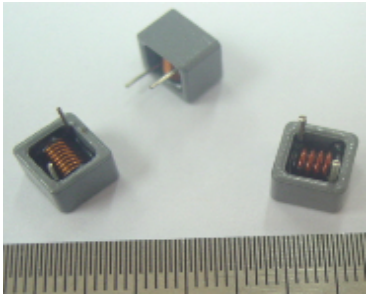
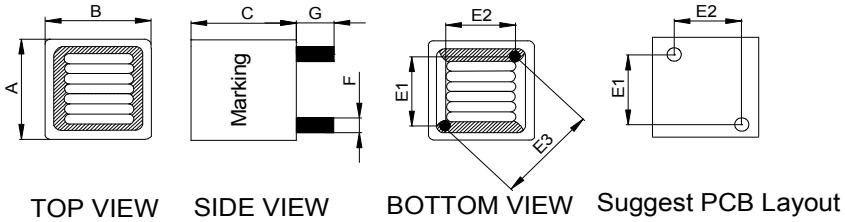
LR3124 Series

1. Features:

· Compact design to save board space.
· Inductance range: 0.47uH to 6.80uH. Custom values are welcomed.
· High current handle capability; up to 34 Amps.
· Ideal for desktop computers, servers, workstations, VGA card, set top box, routers, voltage-regulator modules & high density board design.
· RoHS & HF compliant.
· Operating Temperature Range: -55°C to +130°C.



2. Mechanical Dimensions: (Unit: mm)



TOP VIEW SIDE VIEW BOTTOM VIEW Suggest PCB Layout

Type	LR3124	
A	8.2 (Max.)	
B	8.2 (Max.)	
C	6.0 (Max.)	
E1	(R47~1R2)	4.5±0.5
	(1R5~2R5)	4.8±0.5
	(3R3~6R8)	5.1 (Typ.)
E2	(R47~1R2)	4.5±0.5
	(1R5~2R5)	4.8±0.5
	(3R3~6R8)	5.1 (Typ.)
E3	(R47~1R2)	6.3±0.5
	(1R5~2R5)	6.8±0.5
	(3R3~6R8)	7.2 (Typ.)
F	See below table	
G	3.5±0.5	

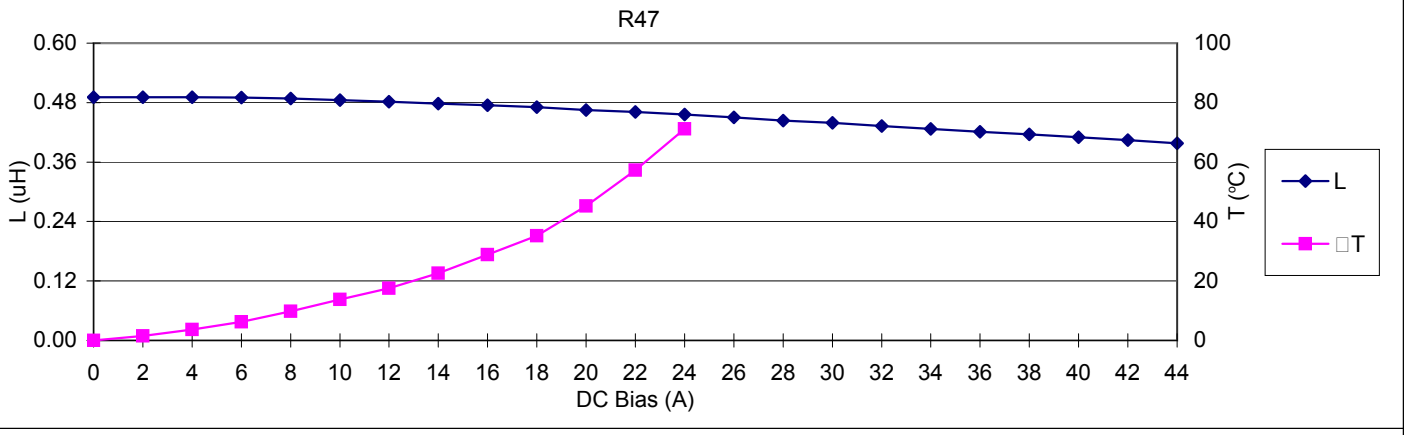
3. Electrical Characteristics of LR3124 Series:

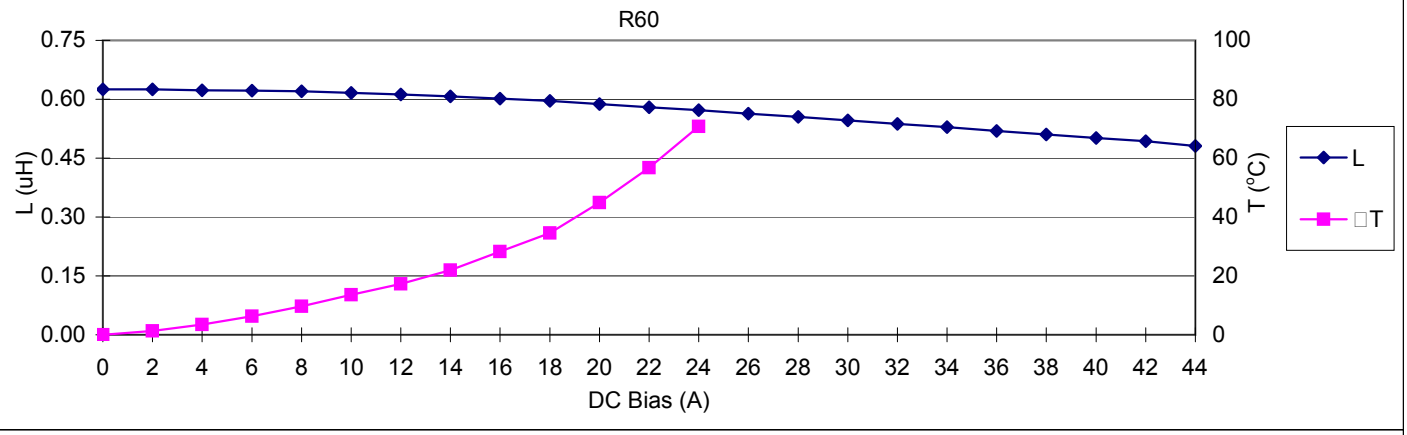
Part Number	OCL (uH) ±20%	DCR (mΩ) ±8% or 15%	Isat (A) Max @ 25°C	L @ Isat (uH) Typ.	Irms (A) @ 25°C	L @ Irms (uH) Typ.	Dimension F (mm)
LR3124-R47MU	0.47	2.6 , 8%	34.0	0.427	19.0	0.468	0.80
LR3124-R60MU	0.60	2.6 , 8%	30.0	0.546	19.0	0.590	0.80
LR3124-R80MU	0.80	3.0 , 8%	27.0	0.730	18.0	0.771	0.80
LR3124-1R0MU	1.0	4.7 , 8%	22.0	0.939	15.0	0.985	0.70
LR3124-1R2MU	1.2	4.7 , 8%	21.0	1.050	15.0	1.100	0.70
LR3124-1R5MU	1.5	6.0 , 8%	15.0	1.341	12.0	1.389	0.60
LR3124-1R8MU	1.8	10.4 , 8%	14.0	1.559	10.0	1.646	0.50
LR3124-2R0MU	2.0	10.4 , 8%	12.0	1.780	9.0	1.829	0.50
LR3124-2R2MU	2.2	11.5 , 8%	11.0	1.921	8.0	1.994	0.50
LR3124-2R5MU	2.5	11.5 , 8%	10.0	2.203	8.0	2.253	0.50
LR3124-3R3MU	3.3	14.5 , 15%	9.0	2.943	6.0	3.113	0.45
LR3124-4R0MU	4.0	19.5 , 15%	8.0	3.548	6.0	3.694	0.40
LR3124-4R5MU	4.5	23.5 , 15%	7.0	4.055	5.0	4.220	0.38
LR3124-5R0MU	5.0	29.5 , 15%	7.0	4.614	5.0	4.852	0.35
LR3124-6R0MU	6.0	38.0 , 15%	6.0	5.596	4.5	5.813	0.32
LR3124-6R8MU	6.8	45.0 , 15%	5.5	6.173	4.0	6.405	0.30

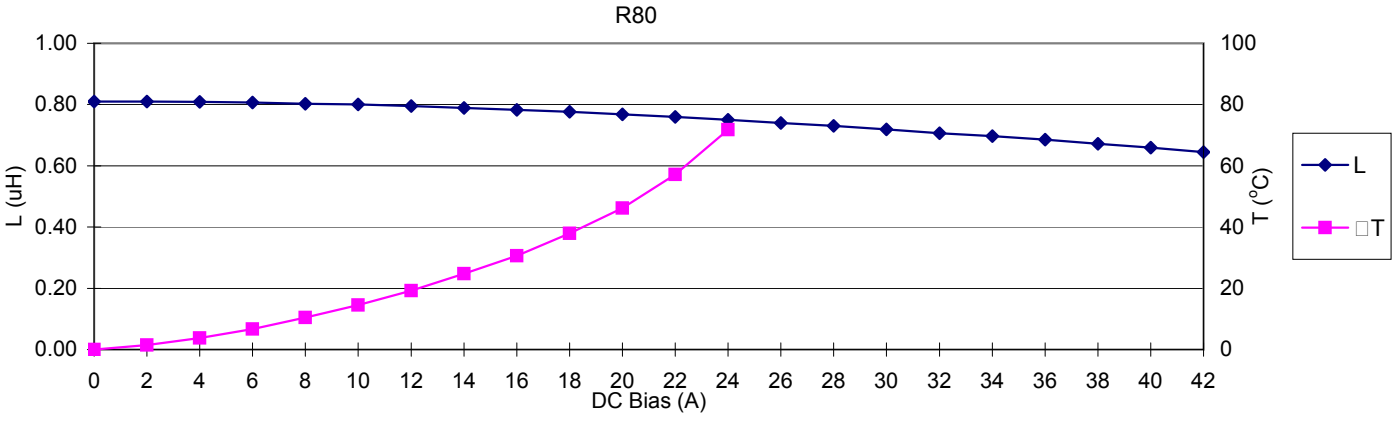
Notes:

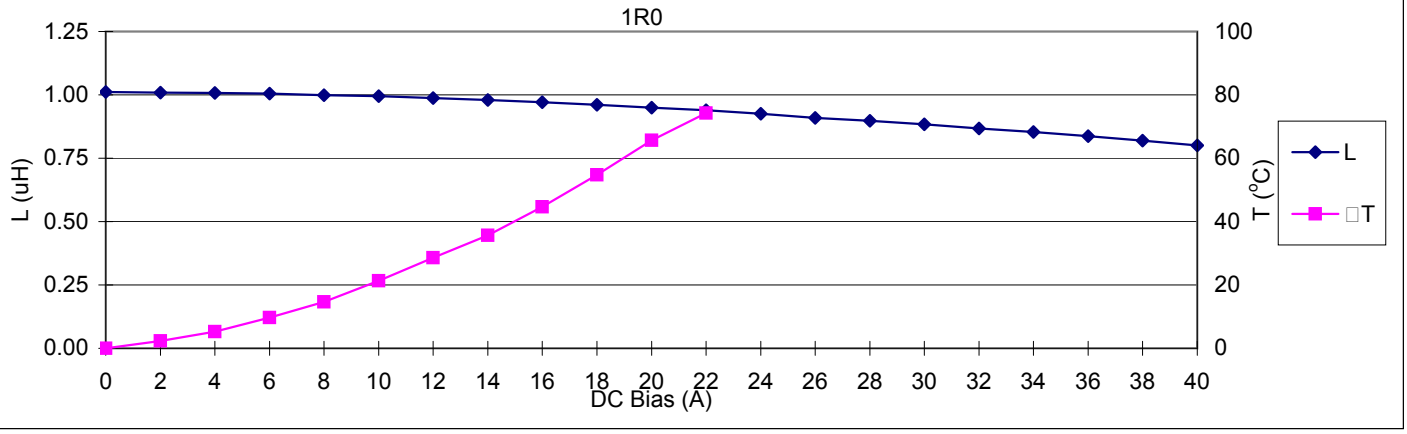
1. OCL (Open Circuit Inductance) and L @ Irms and L @ Isat are measured at: 100KHz, 1.0V @ 25ºC.
2. Isat: DC current that causes inductance to drop by approximately 20% from OCL.
3. Irms: DC current that causes an approximate temperature rise (△T) of 40°C.
4. Inductance and Temperature rise vs. DC Bias curve; please see the next page to get more detailed information.

INDUCTANCE vs. DC BIAS vs. TEMPERATURE









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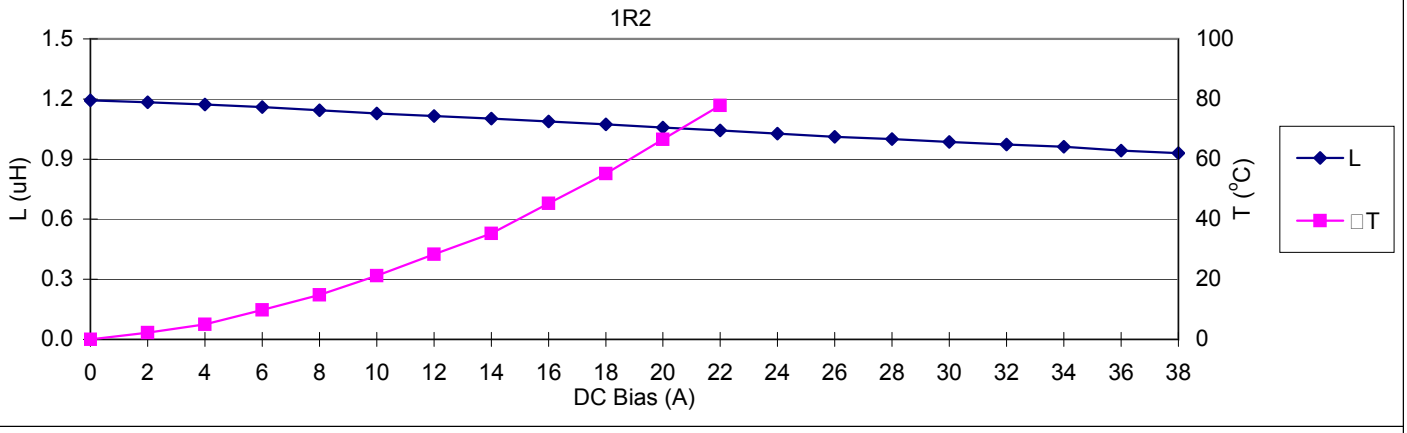
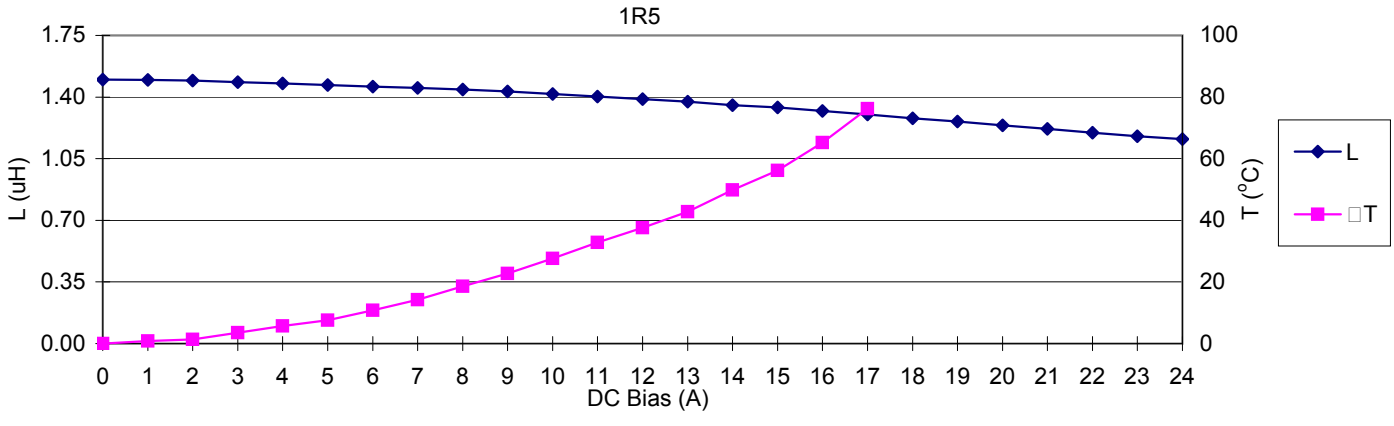
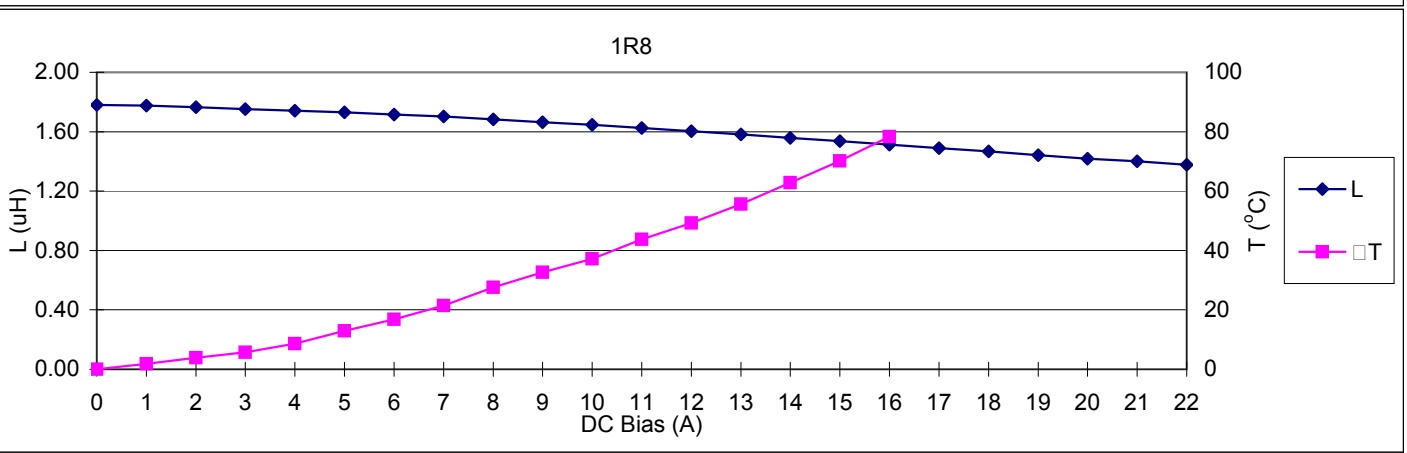
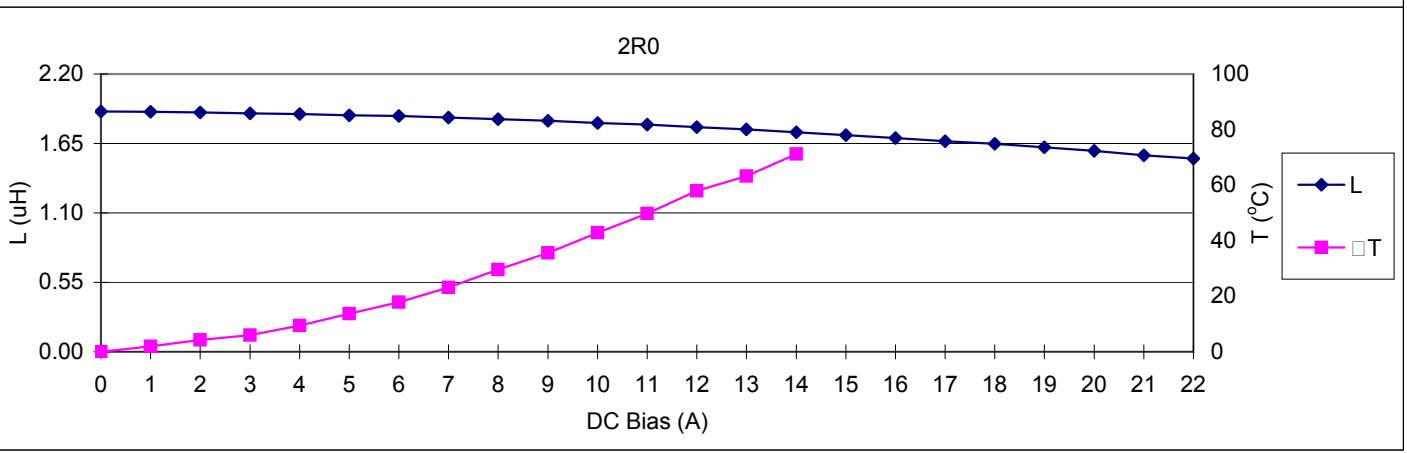
INDUCTANCE vs. DC BIAS vs. TEMPERATURE









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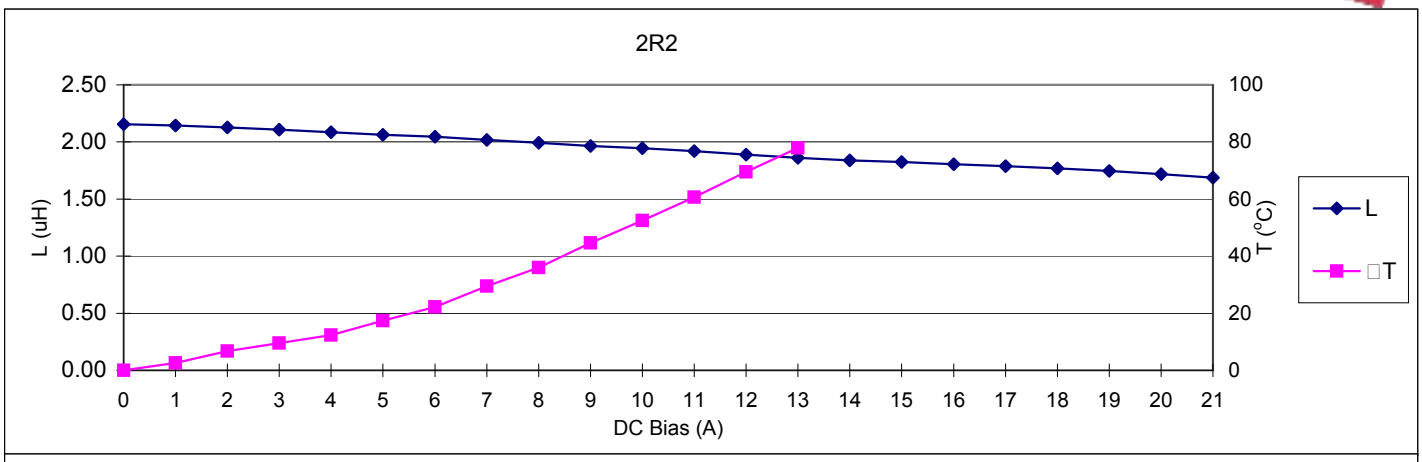

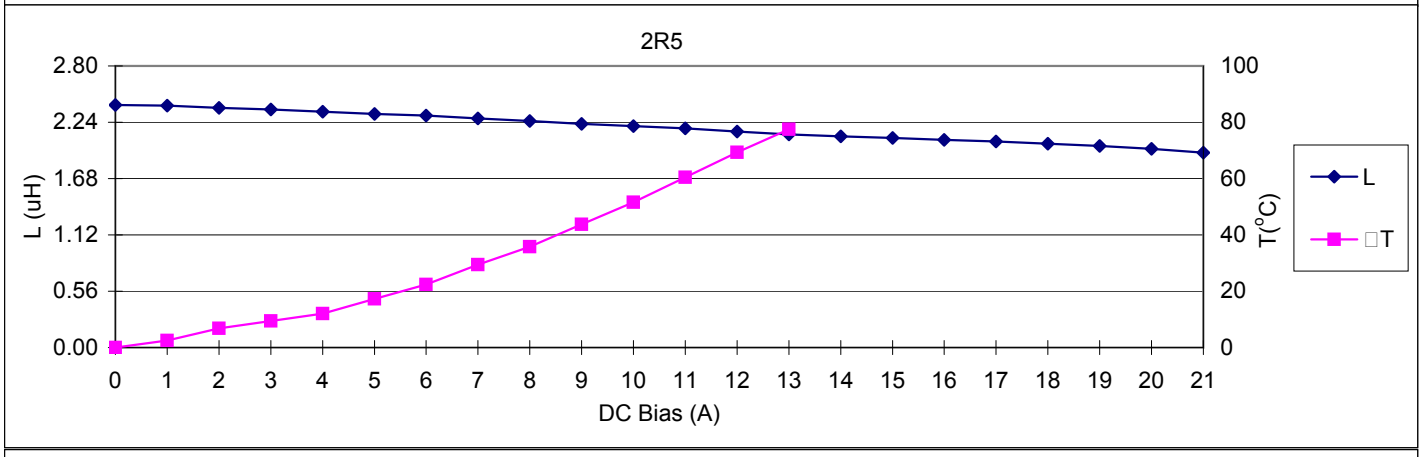

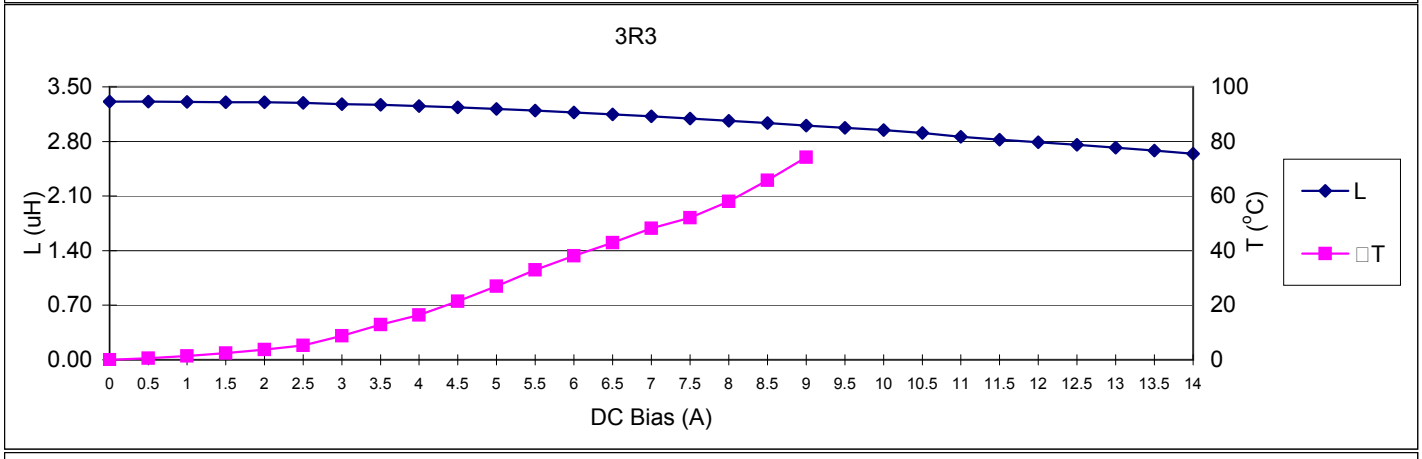

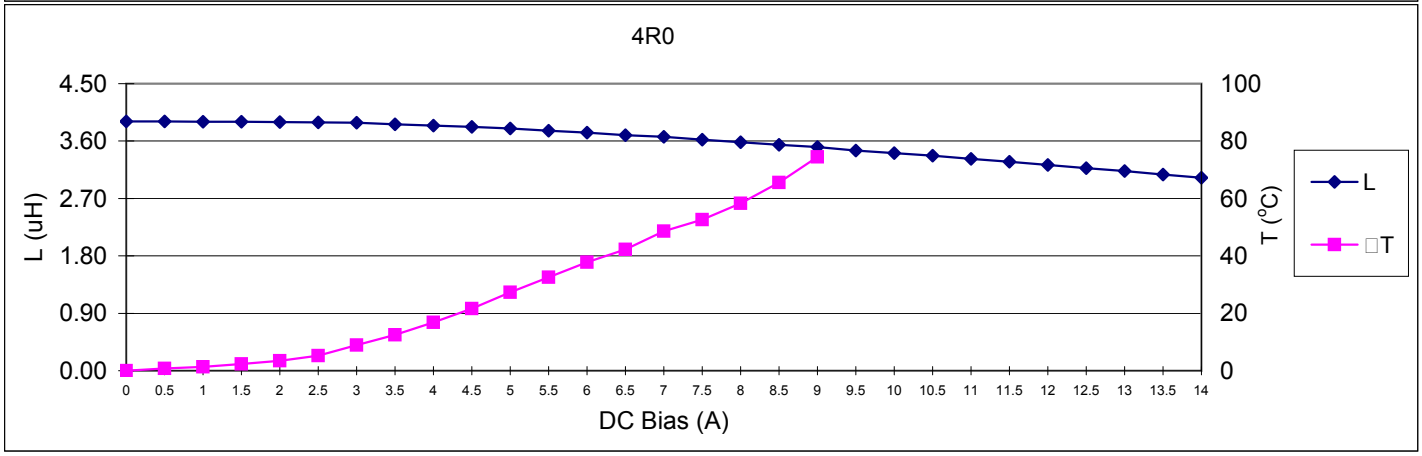

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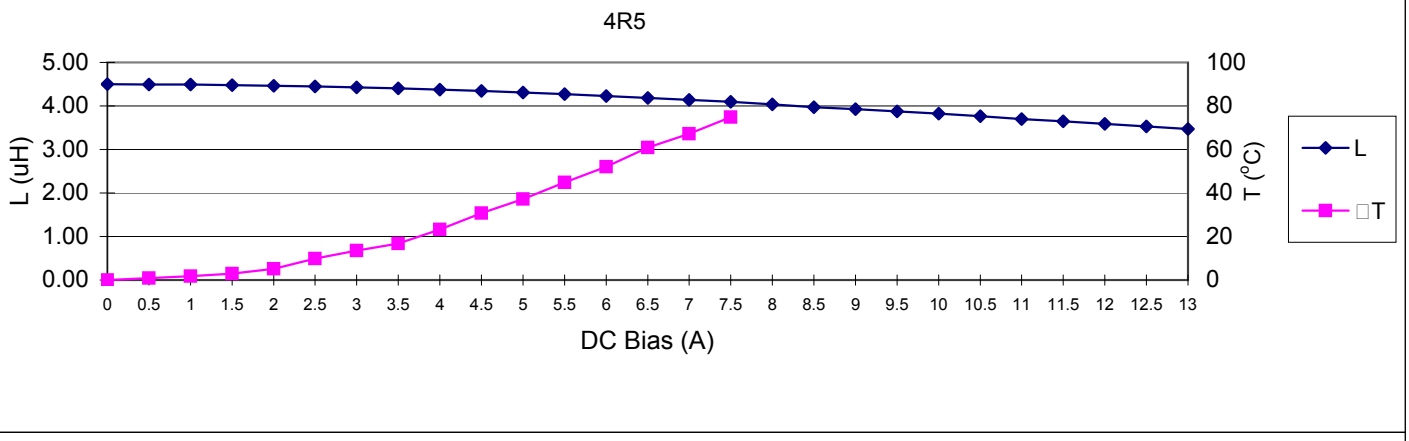

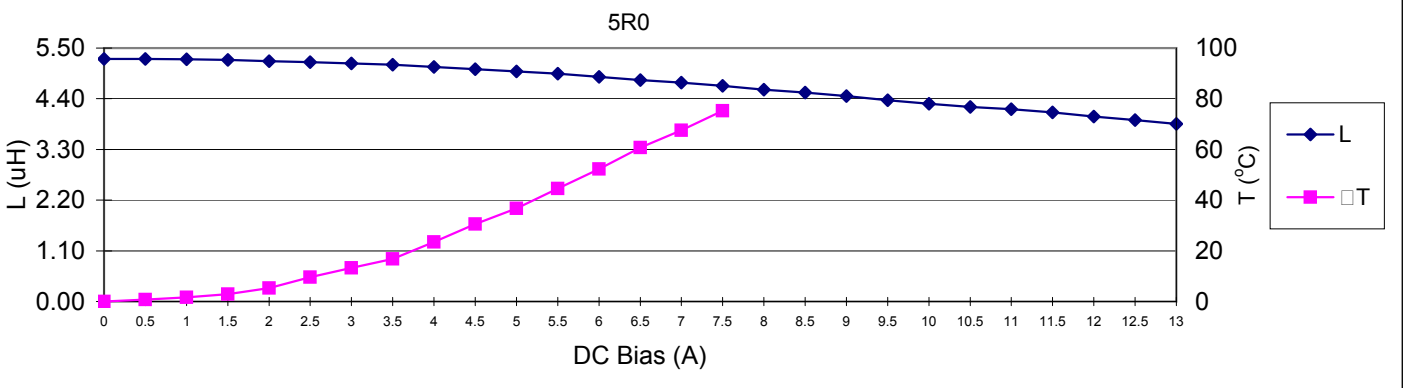

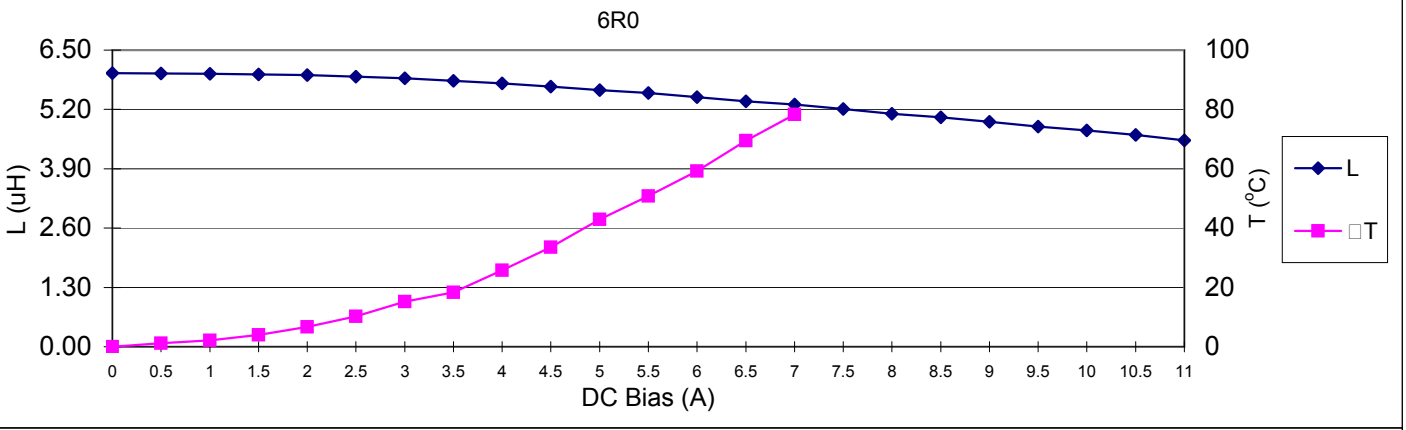

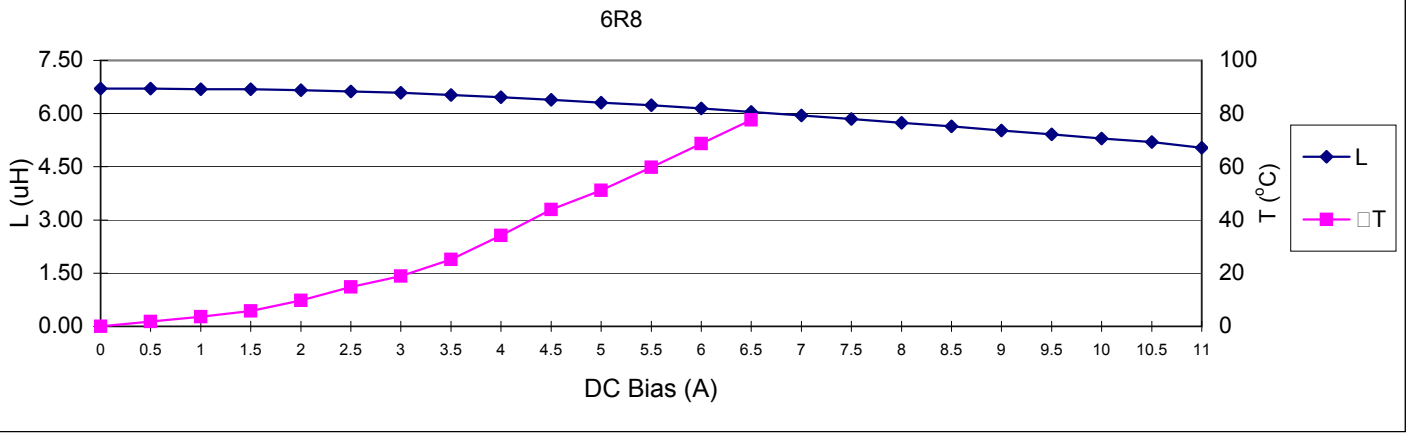

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