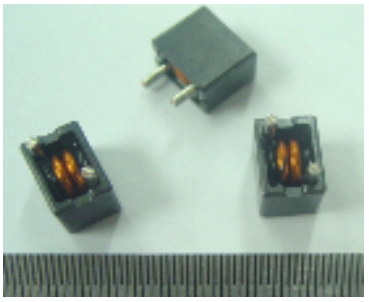
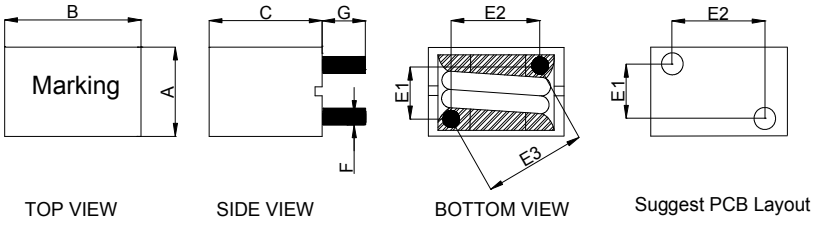
QS100709 Series

1. Features:

· Design with low core loss material for high frequency application.
· Inductance range: 0.22uH to 4.70uH. Custom values are welcomed.
· High current output chokes, up to 46 Amps.
· Ideal for desktop computers, servers, workstations, VGA card, set top box, telecom equipments, 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	QS100709	
A	7.5 (Max.)	
B	10.5 (Max.)	
C	8.9 (Max.)	
E1	(R22~R80)	3.9±0.5
	(1R0~2R0)	4.4±0.5
	(2R2~4R7)	4.6±1.0
E2	(R22~R80)	6.1±0.5
	(1R0~2R0)	6.6±0.5
	(2R2~4R7)	6.8±1.0
E3	(R22~R80)	7.2±0.5
	(1R0~2R0)	8.0±0.5
	(2R2~4R7)	8.2±1.0
F	See below table	
G	3.5±0.5	

3. Electrical Characteristic of QS100709 Series:

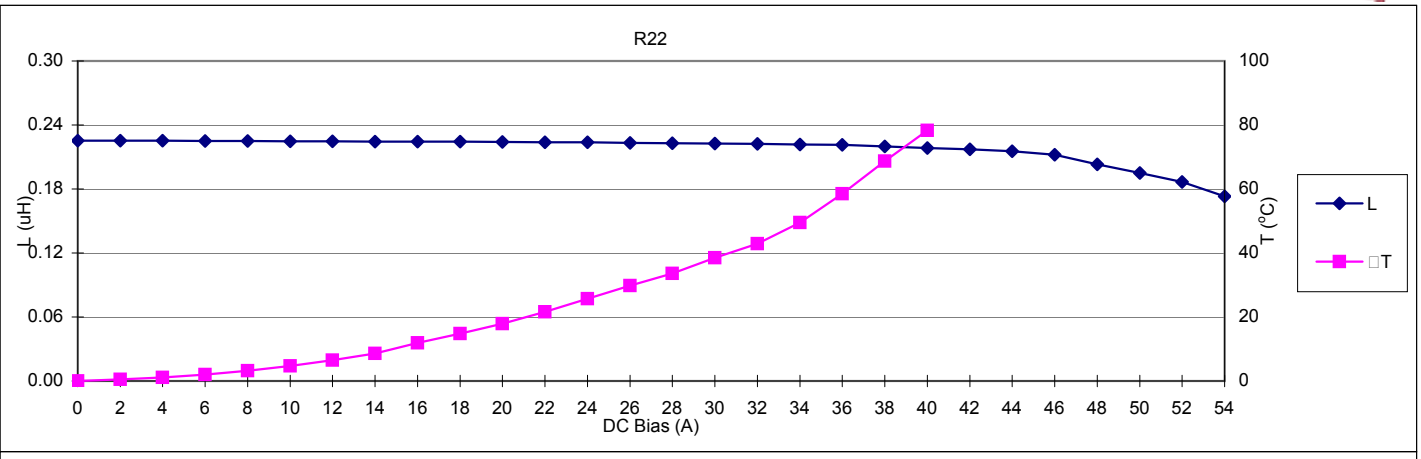
Part Number	OCL (uH) ±15%	DCR (mΩ) ±8%	Isat (A) @ 25℃	L @ Isat (uH) Typ.	Irms (A) @ 25℃	L @ Irms (uH) Typ.	Dimension F (mm)
QS100709-R22LU	0.22	0.68	46.0	0.212	30.0	0.223	1.40
QS100709-R30LU	0.30	0.68	44.0	0.279	30.0	0.298	1.40
QS100709-R39LU	0.39	0.68	42.0	0.355	30.0	0.375	1.40
QS100709-R47LU	0.47	0.68	40.0	0.430	30.0	0.459	1.40
QS100709-R60LU	0.60	1.25	34.0	0.528	24.0	0.596	1.20
QS100709-R80LU	0.80	1.25	32.0	0.691	24.0	0.752	1.20
QS100709-1R0LU	1.00	2.60	26.0	0.860	18.0	0.965	0.90
QS100709-1R2LU	1.20	2.60	24.0	1.060	18.0	1.240	0.90
QS100709-1R5LU	1.50	3.90	22.0	1.260	15.0	1.450	0.80
QS100709-2R0LU	2.00	3.90	20.0	1.770	15.0	1.930	0.80
QS100709-2R2LU	2.20	7.90	18.0	1.860	10.0	2.184	0.65
QS100709-2R5LU	2.50	7.90	15.0	2.150	10.0	2.462	0.65
QS100709-3R0LU	3.00	10.80	13.0	2.620	7.0	3.027	0.55
QS100709-3R5LU	3.50	10.80	12.0	2.960	7.0	3.536	0.55
QS100709-4R0LU	4.00	14.00	10.0	3.480	6.0	3.960	0.50
QS100709-4R7LU	4.70	14.00	9.0	4.180	6.0	4.636	0.50

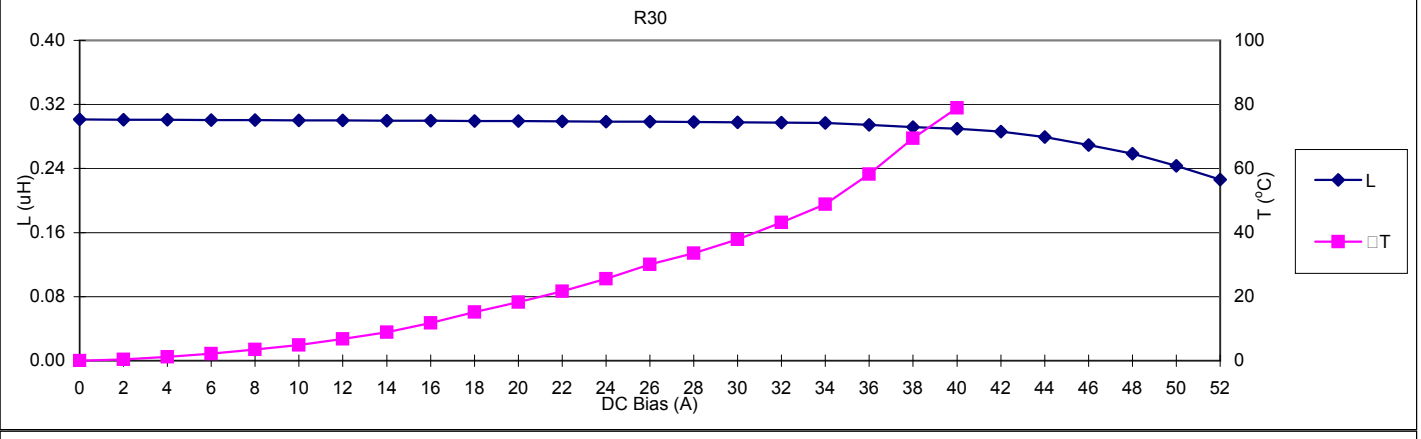
Notes:

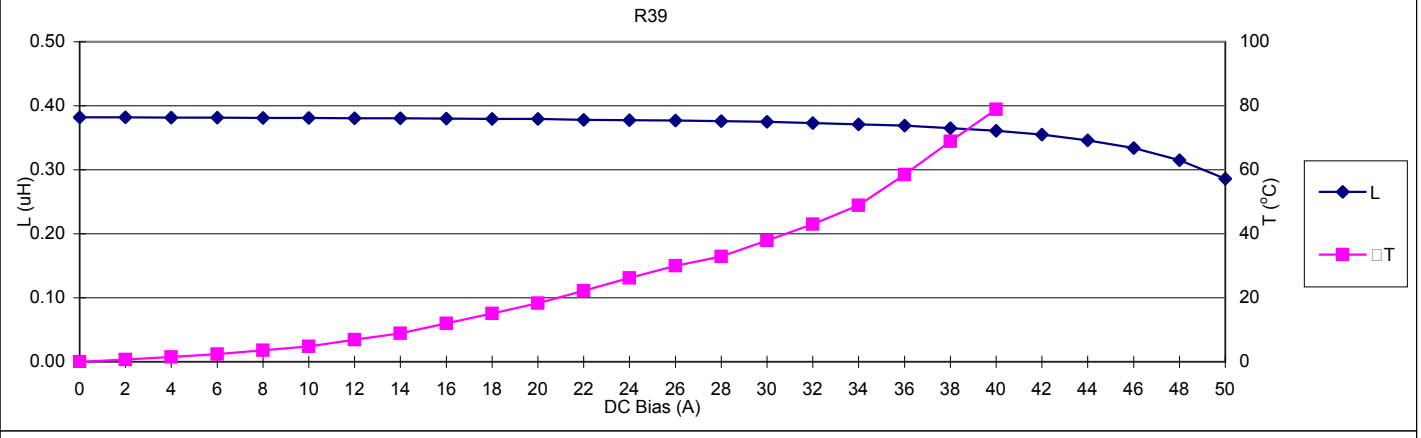
1. OCL (Open Circuit Inductance) and L @ Irms and L @ Isat are measured at: 100KHz, 1.0V @ 25ºC.
2. Isat: DC current that causes inductance to drop by approximately 20% from OCL.
3. Irms: DC current that causes an approximate temperature rise (△T) of 40℃.
4. Inductance and Temperature rise vs. DC Bias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

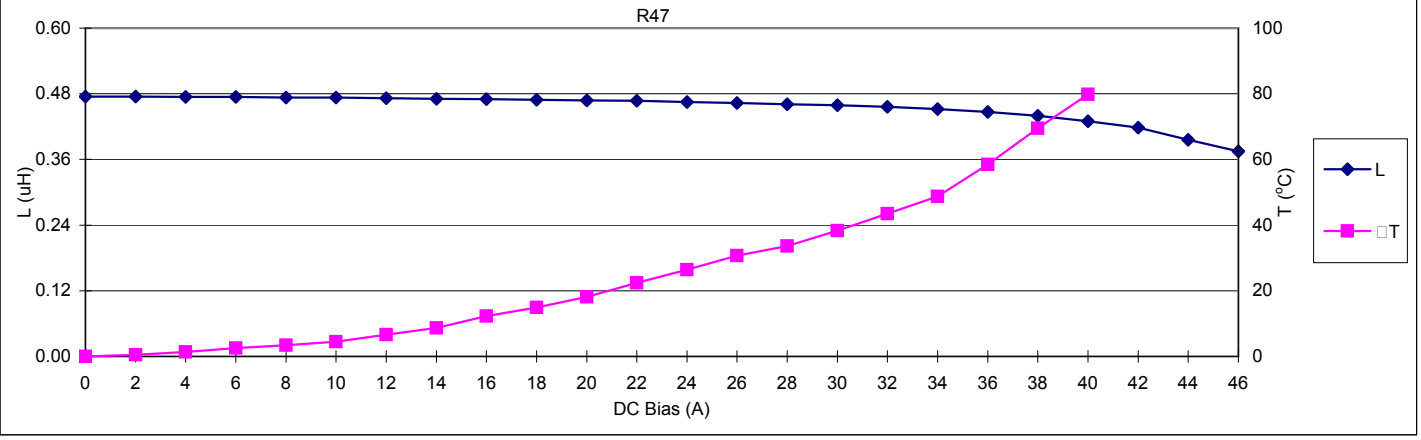
US 1 914 347 2474 ● Taiwan 886 972 022 388 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● HK 852 9688 9767
sales@inter-technical.com www.inter-technical.com
Rev. A, Dec. 21, 2009

INDUCTANCE vs. DC BIAS vs. TEMPERATURE



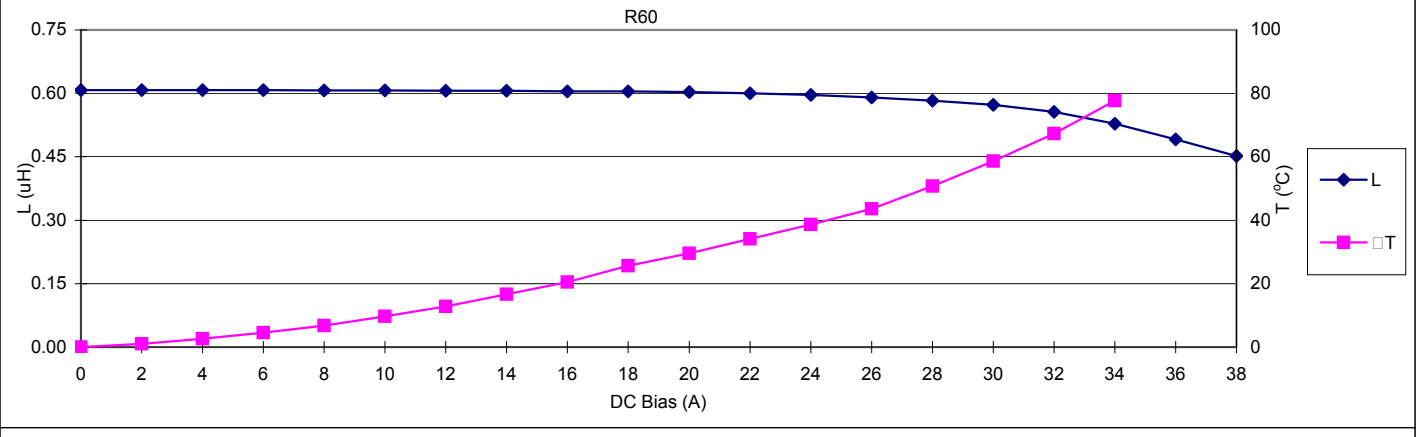


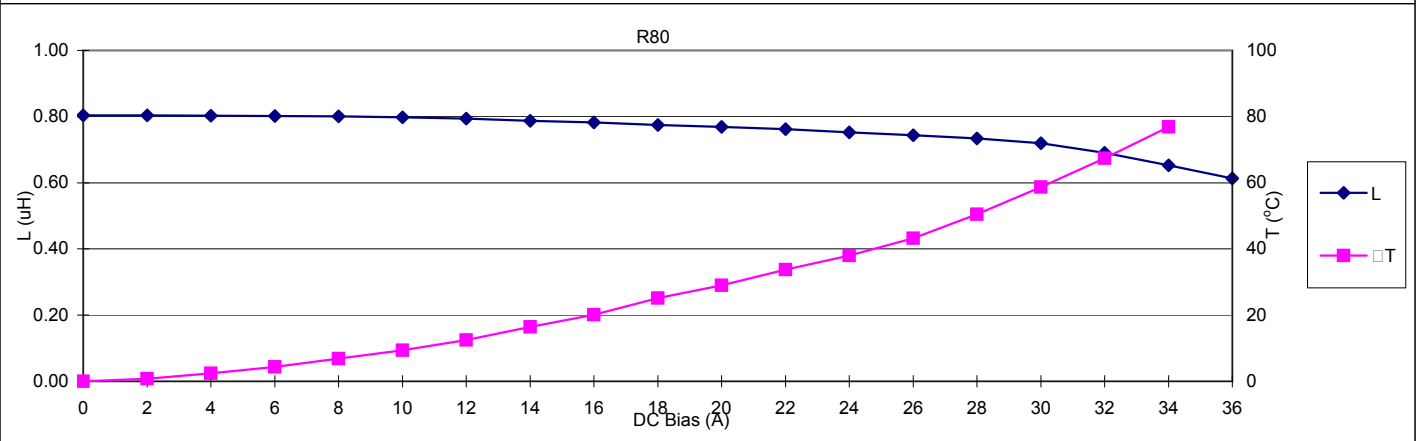


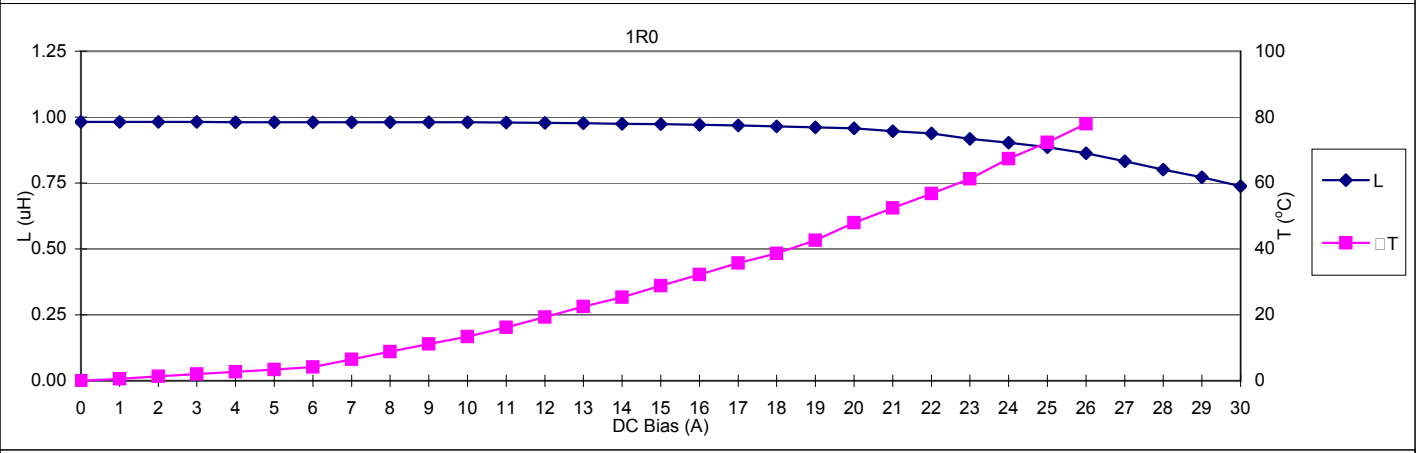


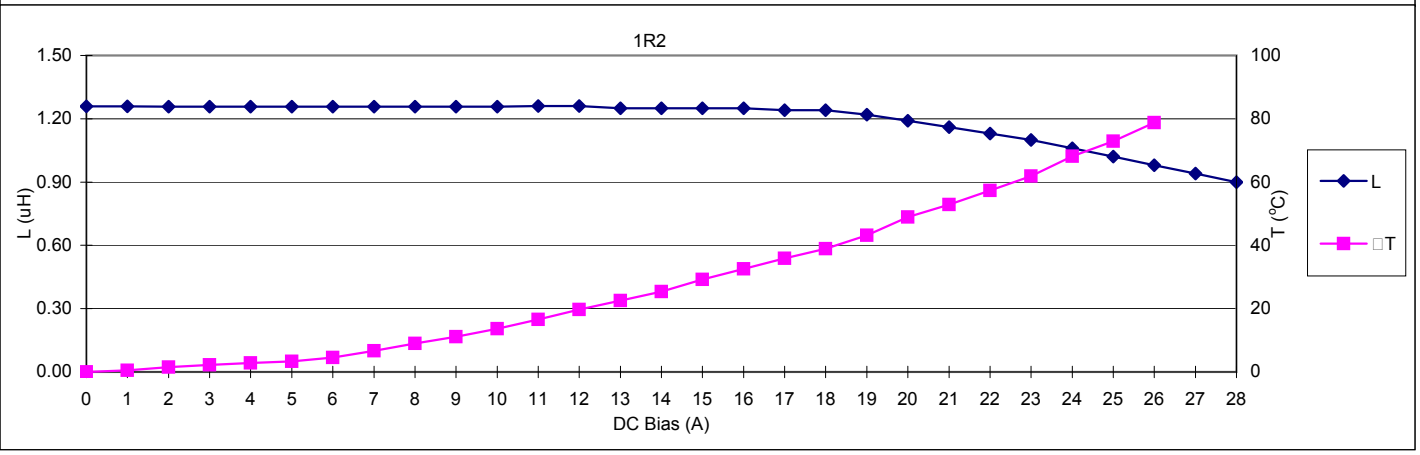
US 1 914 347 2474 ● Taiwan 886 972 022 388 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● HK 852 9688 9767
sales@inter-technical.com www.inter-technical.com
Rev. A, Dec. 21, 2009

INDUCTANCE vs. DC BIAS vs. TEMPERATURE



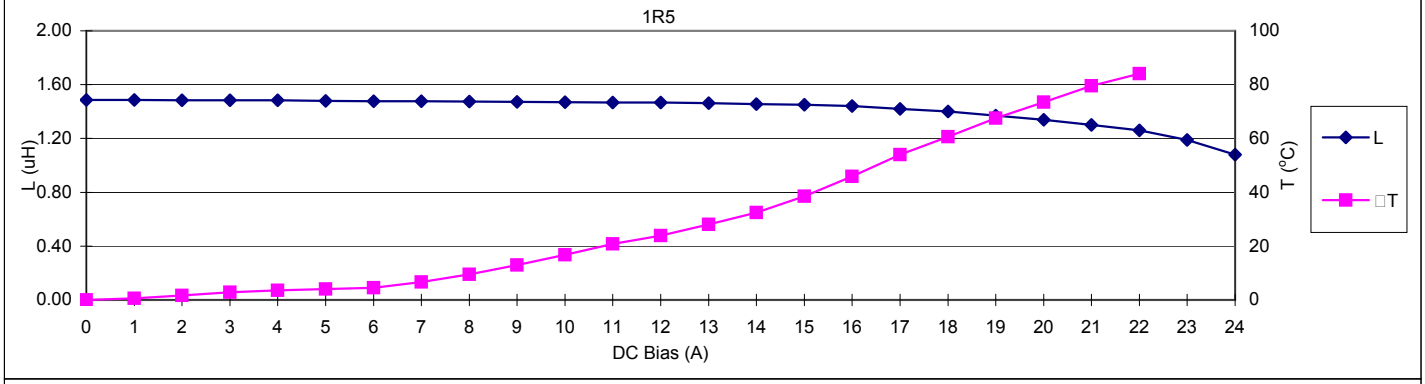


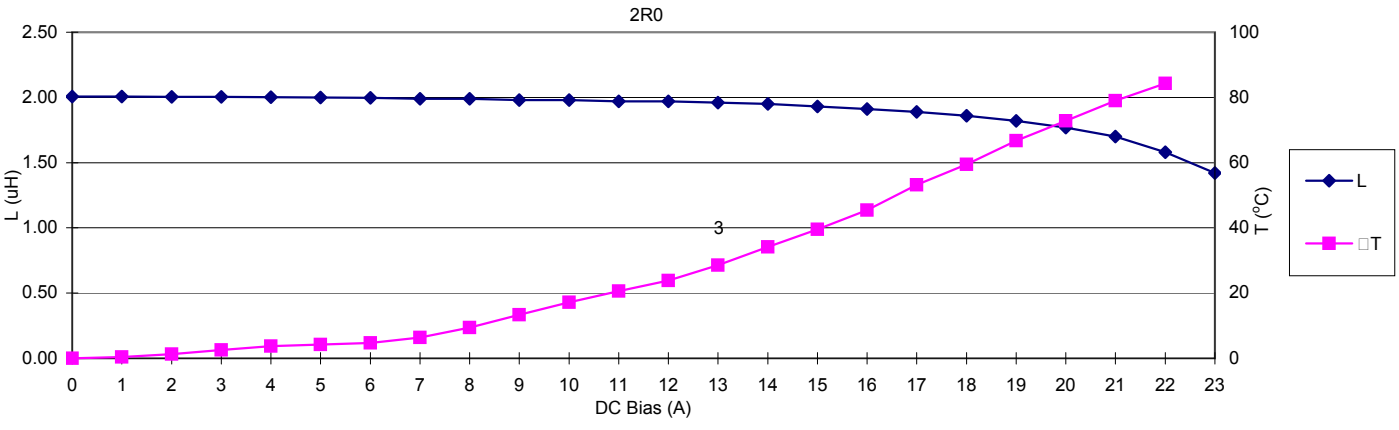


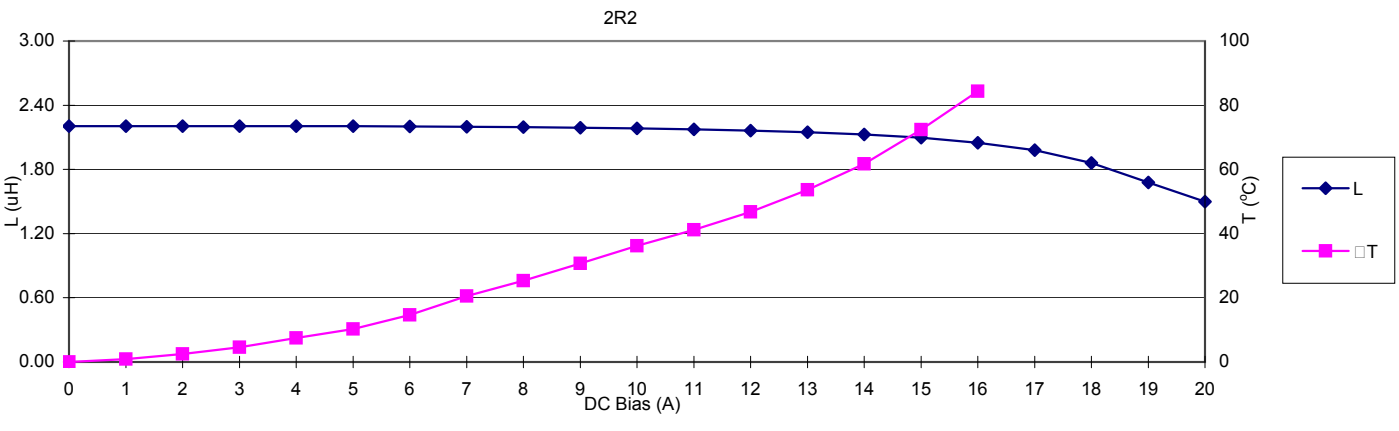


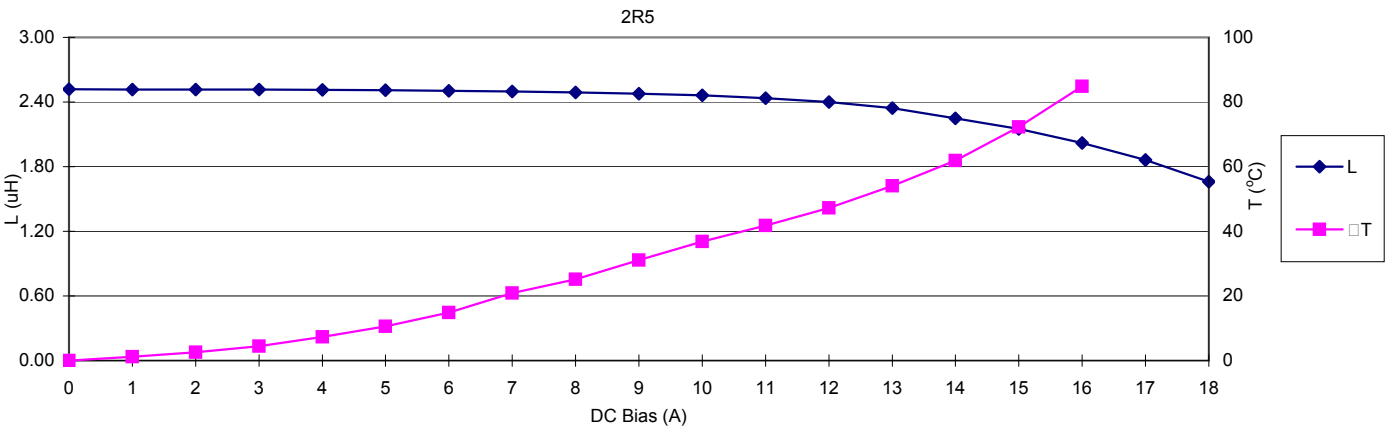
US 1 914 347 2474 ● Taiwan 886 972 022 388 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● HK 852 9688 9767
sales@inter-technical.com www.inter-technical.com
Rev. A, Dec. 21, 2009

INDUCTANCE vs. DC BIAS vs. TEMPERATURE



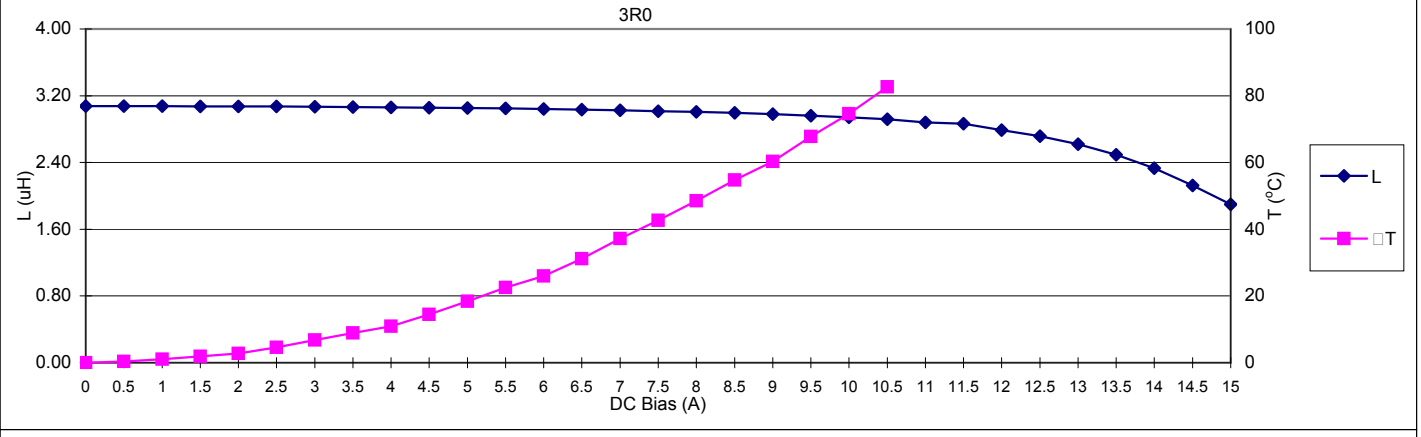


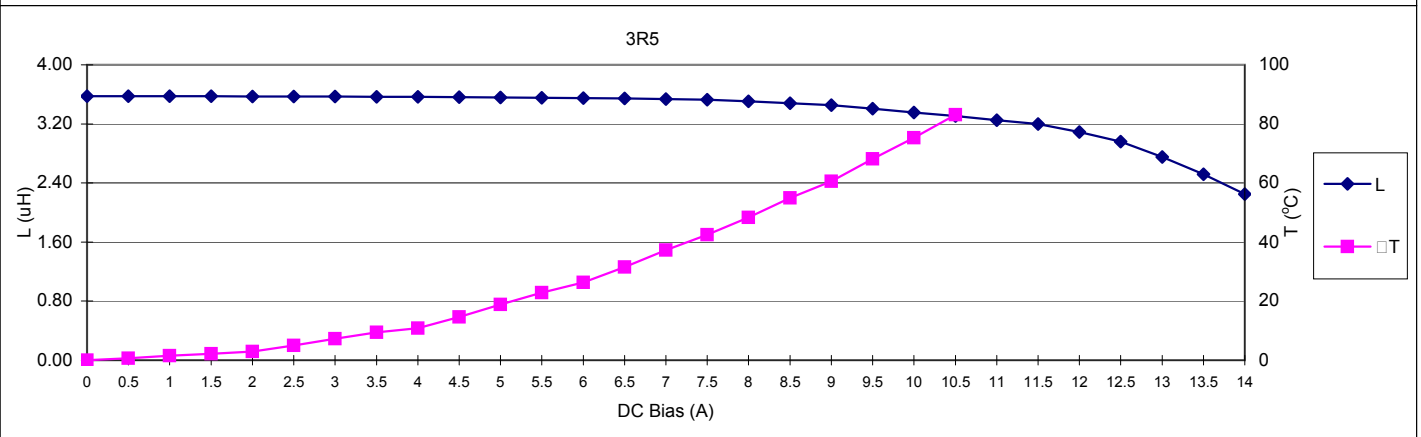


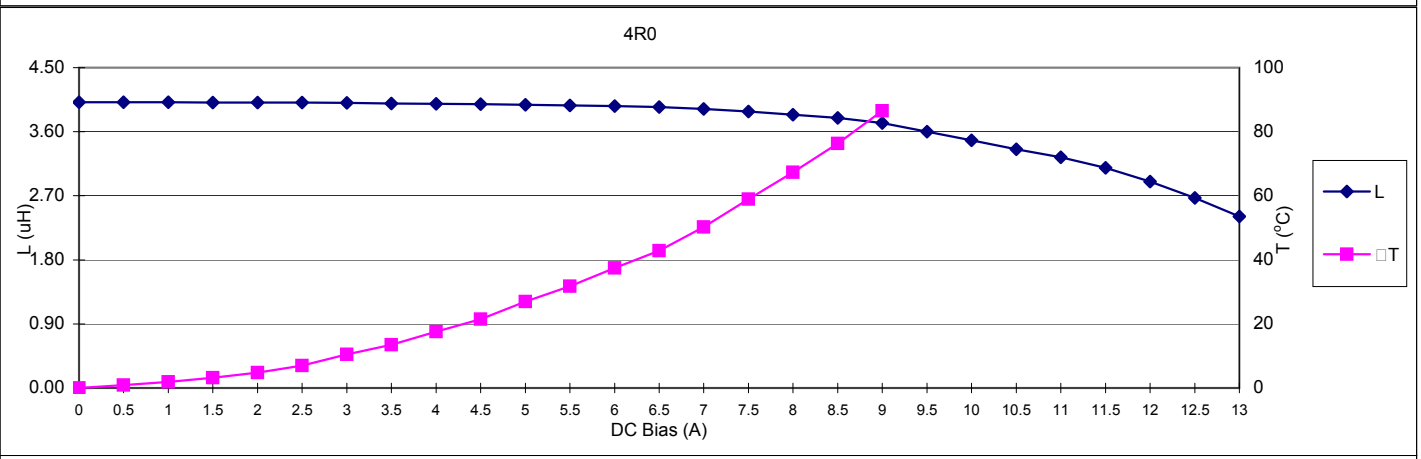


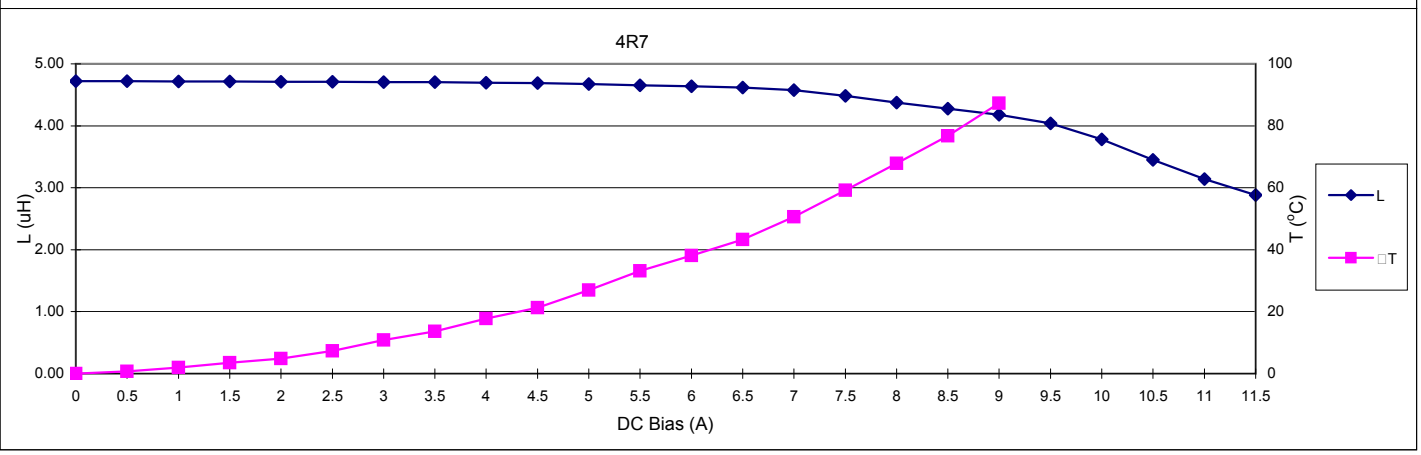
US 1 914 347 2474 ● Taiwan 886 972 022 388 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● HK 852 9688 9767
sales@inter-technical.com www.inter-technical.com
Rev. A, Dec. 21, 2009

INDUCTANCE vs. DC BIAS vs. TEMPERATURE









US 1 914 347 2474 ● Taiwan 886 972 022 388 ● Shenzhen 86 755 8418 6263 ● Shanghai 86 21 5424 5141 ● HK 852 9688 9767
sales@inter-technical.com www.inter-technical.com
Rev. A, Dec. 21, 2009