

CER1042C

AEC-Q200



■ Features

- High reliability available for automotive application.
- SMD magnetic shielded type of power inductor.
- Suitable for power supply choke coil.
- AEC-Q200 compliant
- Operating temperature : -40°C~+150°C(The self-heating is included)

Magnetic structure :

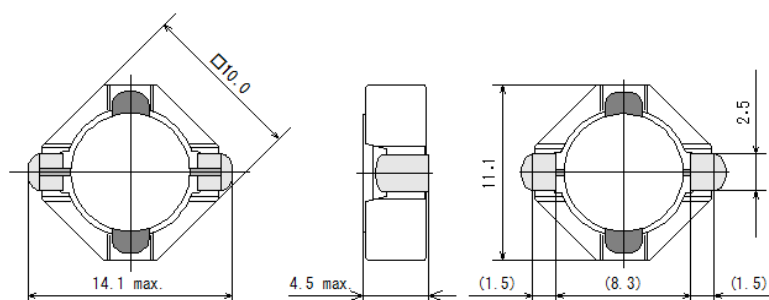


Weight : 1.5 g

■ Applications

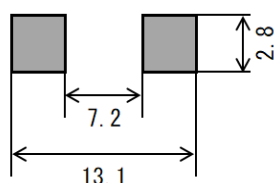
- Automotive/Car Audio,Car Navigation,ECU,LED Headlights
- Others/Power Supply,FA,Medical,Energy

■ Dimensions



(Unit : mm)

■ Recommended Land Pattern



(Unit : mm)



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<https://www.sagami-elec.co.jp>

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■ Specifications

SAGAMI Part No.	Inductance (μ H)	DCR (Ω) $\pm 30\%$	DC Saturation Allowable Current (A)		Temperature Rise Allowable Current (A)	
			Typical	Spec	Typical	Spec
CER1042C-1R5N	1.5 $\pm 30\%$	0.00700	12.2	9.20	8.25	5.90
CER1042C-2R0N	2 $\pm 30\%$	0.00900	10.3	7.70	7.65	5.60
CER1042C-3R0N	3 $\pm 30\%$	0.0100	9.60	6.50	7.20	5.15
CER1042C-3R9N	3.9 $\pm 30\%$	0.0130	8.25	5.70	6.20	4.50
CER1042C-5R1N	5.1 $\pm 30\%$	0.0150	7.30	4.90	5.60	4.00
CER1042C-6R2N	6.2 $\pm 30\%$	0.0190	6.75	4.45	4.95	4.55
CER1042C-7R5N	7.5 $\pm 30\%$	0.0220	6.05	4.00	4.65	3.35
CER1042C-9R1N	9.1 $\pm 30\%$	0.0240	5.65	3.75	4.40	3.15
CER1042C-100M	10 $\pm 20\%$	0.0290	5.10	3.50	4.00	2.90
CER1042C-120M	12 $\pm 20\%$	0.0320	4.90	3.15	3.85	2.75
CER1042C-150M	15 $\pm 20\%$	0.0410	4.25	2.90	3.35	2.45
CER1042C-180M	18 $\pm 20\%$	0.0480	3.55	2.60	3.05	2.20
CER1042C-220M	22 $\pm 20\%$	0.0600	3.25	2.40	2.75	2.00
CER1042C-270M	27 $\pm 20\%$	0.0750	3.15	2.20	2.45	1.80
CER1042C-330M	33 $\pm 20\%$	0.0920	2.90	2.00	2.20	1.60
CER1042C-390M	39 $\pm 20\%$	0.100	2.70	1.80	2.05	1.50
CER1042C-470M	47 $\pm 20\%$	0.120	2.45	1.60	1.88	1.35
CER1042C-560M	56 $\pm 20\%$	0.150	2.20	1.50	1.70	1.25
CER1042C-680M	68 $\pm 20\%$	0.180	1.95	1.35	1.55	1.10
CER1042C-820M	82 $\pm 20\%$	0.210	1.85	1.25	1.43	1.00
CER1042C-101M	100 $\pm 20\%$	0.260	1.60	1.15	1.28	0.920
CER1042C-121M	120 $\pm 20\%$	0.310	1.50	1.00	1.15	0.850
CER1042C-151M	150 $\pm 20\%$	0.400	1.35	0.900	1.03	0.740
CER1042C-181M	180 $\pm 20\%$	0.480	1.10	0.800	0.930	0.670
CER1042C-221M	220 $\pm 20\%$	0.570	1.05	0.700	0.850	0.610
CER1042C-271M	270 $\pm 20\%$	0.710	0.970	0.650	0.760	0.550
CER1042C-331M	330 $\pm 20\%$	0.800	0.920	0.600	0.710	0.510
CER1042C-391M	390 $\pm 20\%$	0.990	0.830	0.550	0.630	0.460
CER1042C-471M	470 $\pm 20\%$	1.21	0.790	0.500	0.570	0.410
CER1042C-561M	560 $\pm 20\%$	1.48	0.710	0.480	0.510	0.370
CER1042C-681M	680 $\pm 20\%$	1.79	0.610	0.440	0.460	0.340
CER1042C-821M	820 $\pm 20\%$	2.09	0.580	0.410	0.430	0.310
CER1042C-102M	1000 $\pm 20\%$	2.37	0.540	0.380	0.400	0.290

Inductance Measuring Condition:100kHz,1V

DC saturation allowable current:The current value which inductance decrease within 30% from the initial value

Temperature rise allowable current:The rise in temperature of core surface is within 40°C



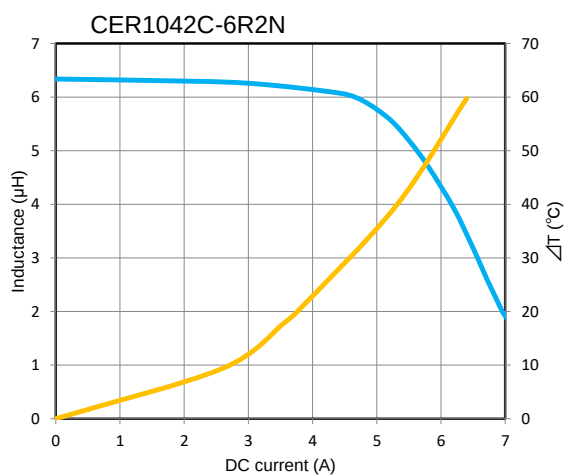
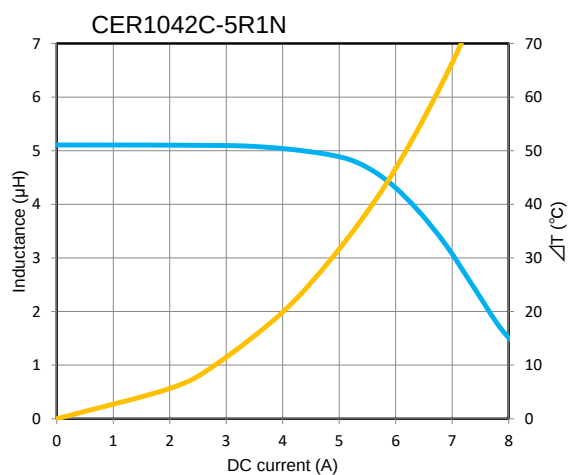
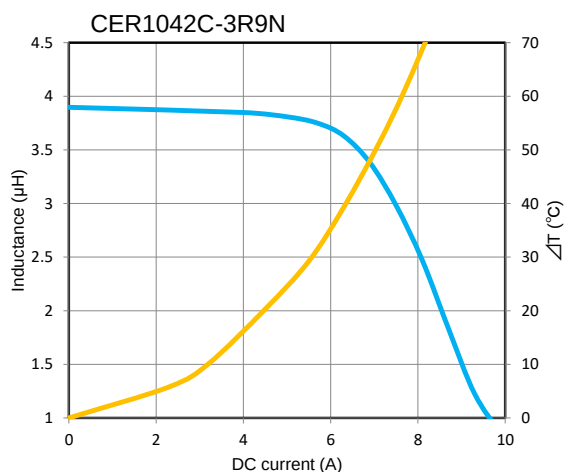
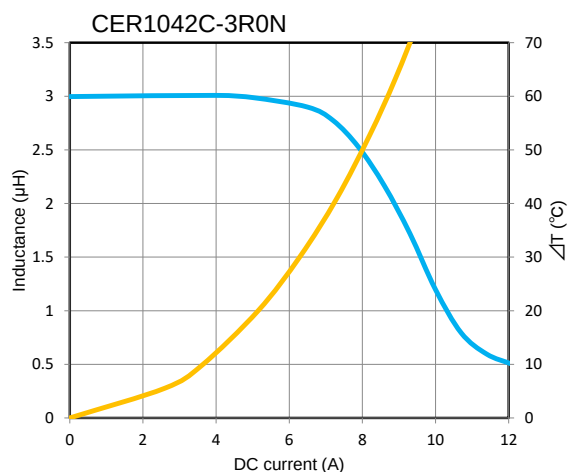
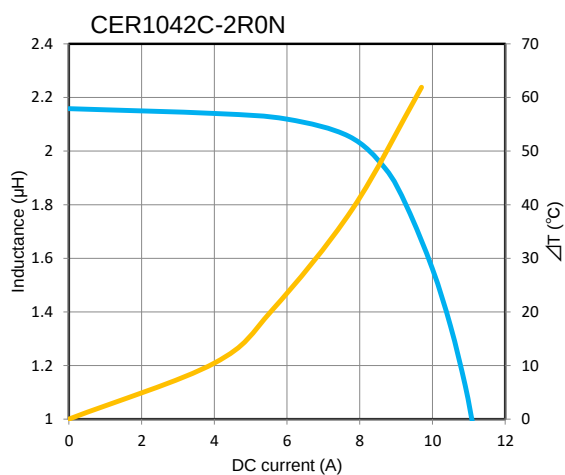
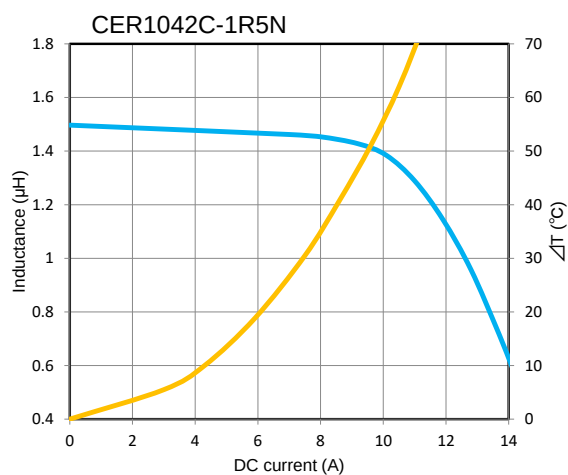
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DC bias characteristics vs Temperature Rise Graph

■ L(25°C) ■ ΔT



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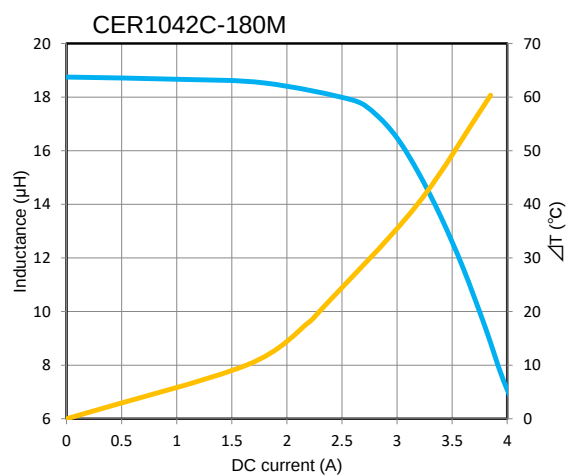
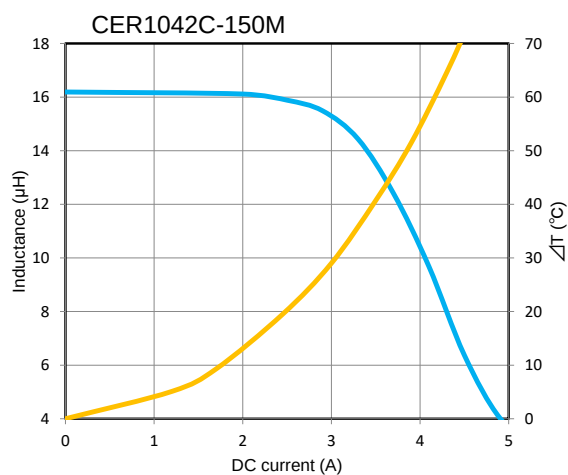
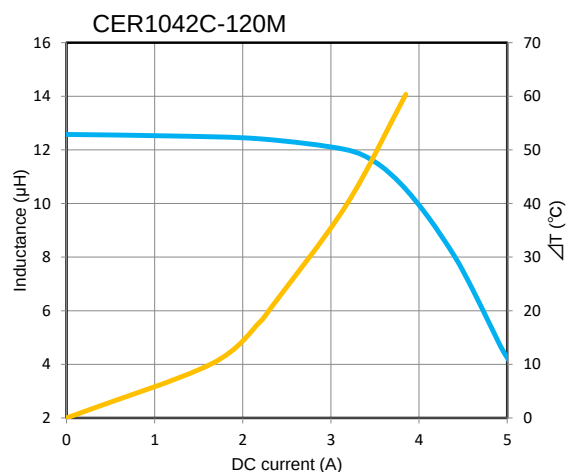
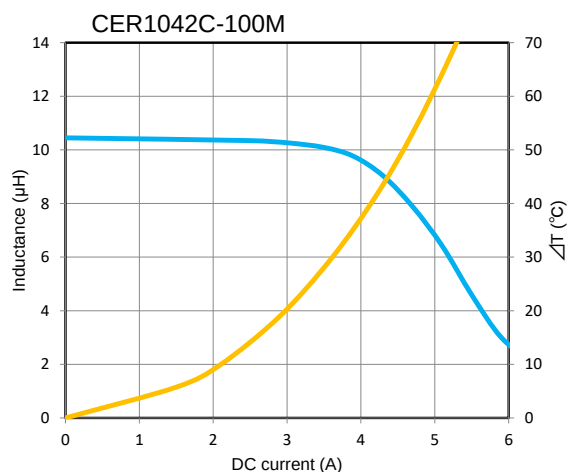
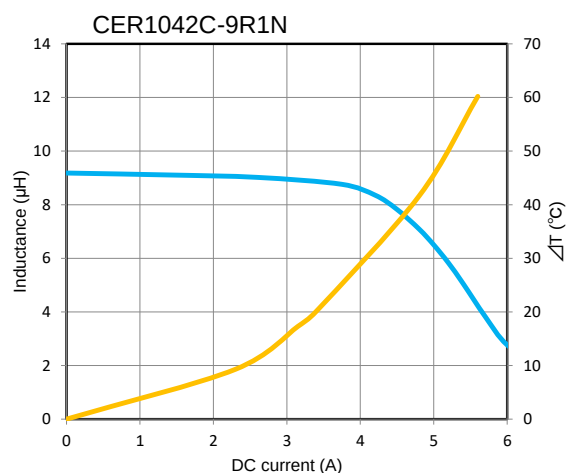
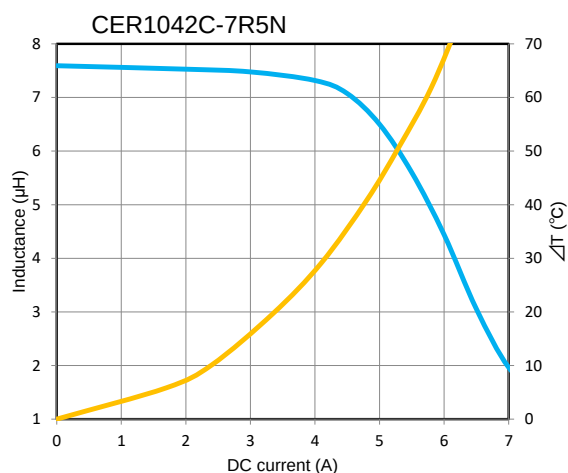
DC bias characteristics vs Temperature Rise Graph



L(25°C)



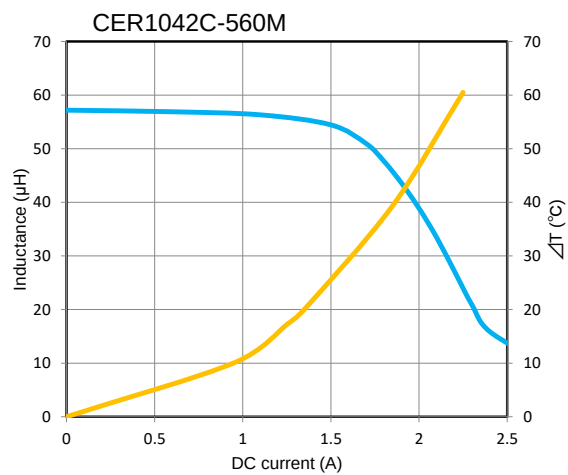
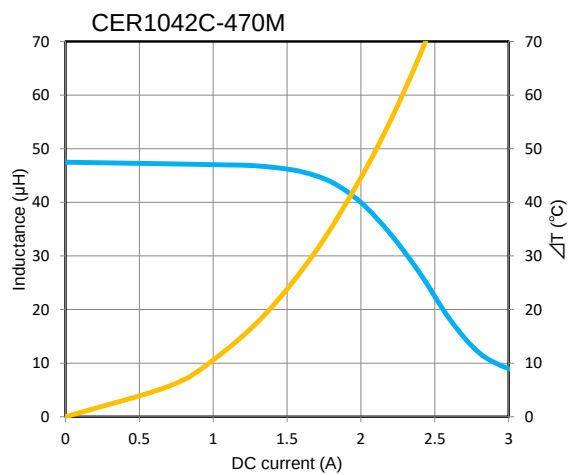
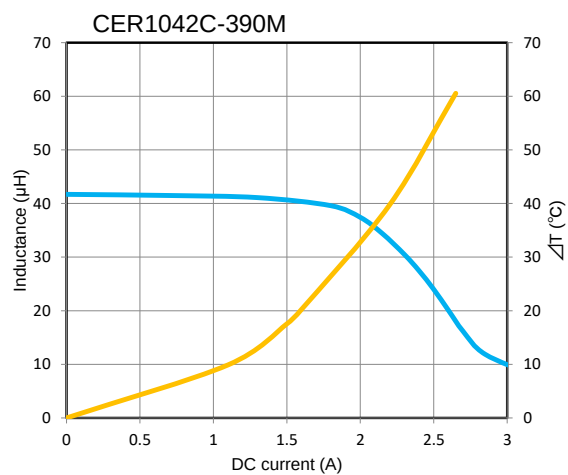
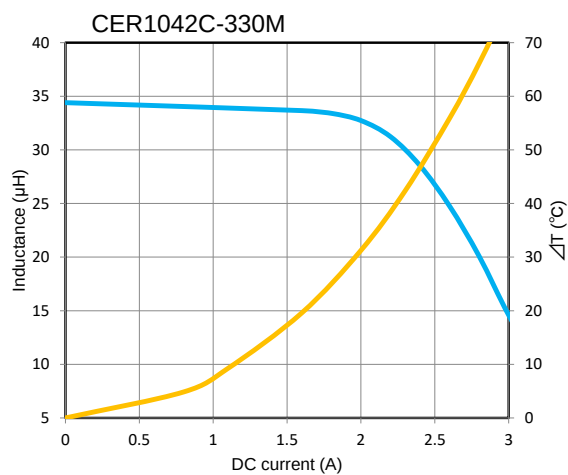
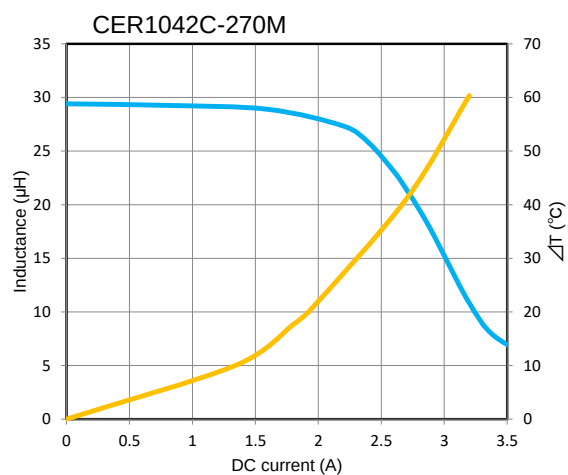
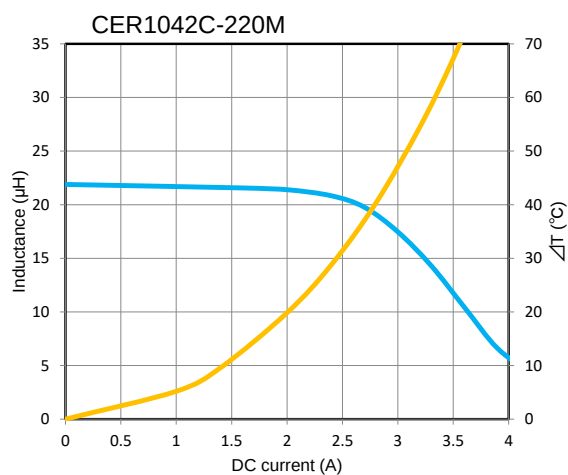
ΔT



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— $L(25^{\circ}\text{C})$ — ΔT



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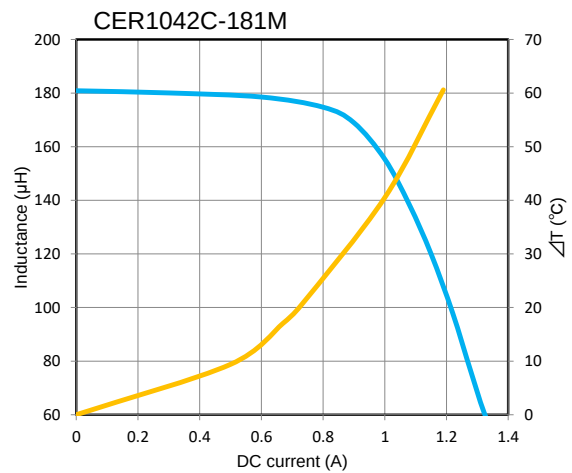
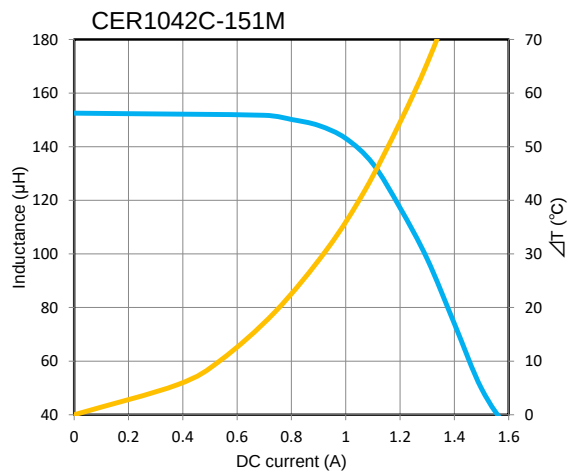
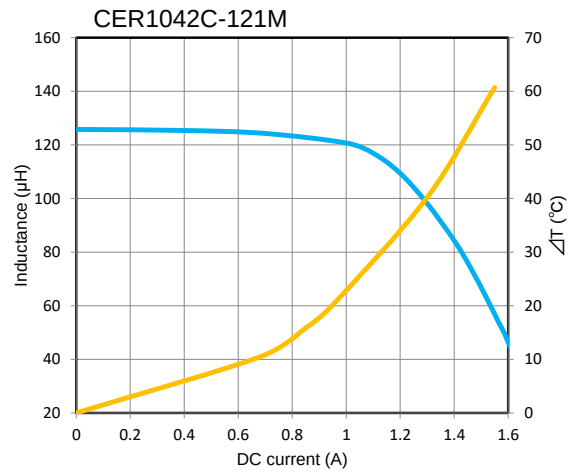
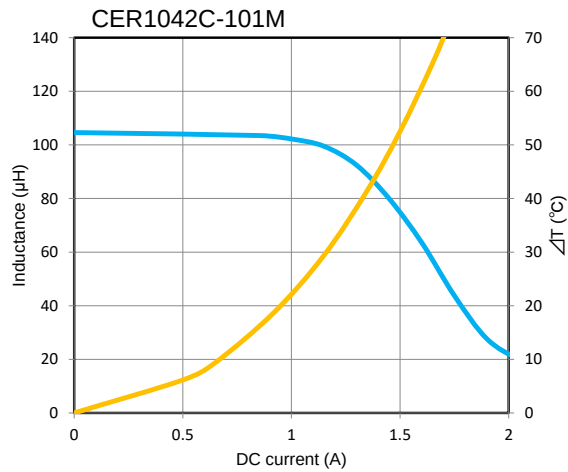
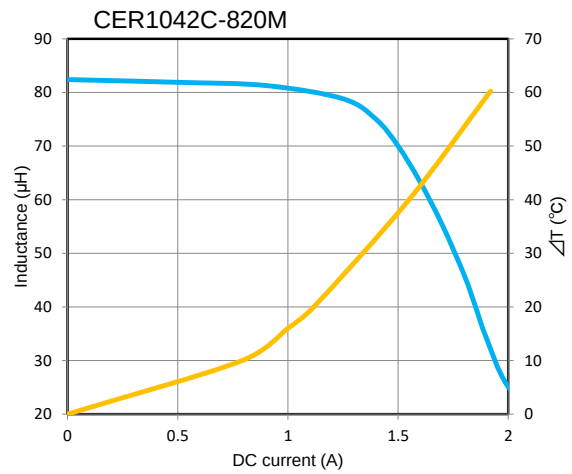
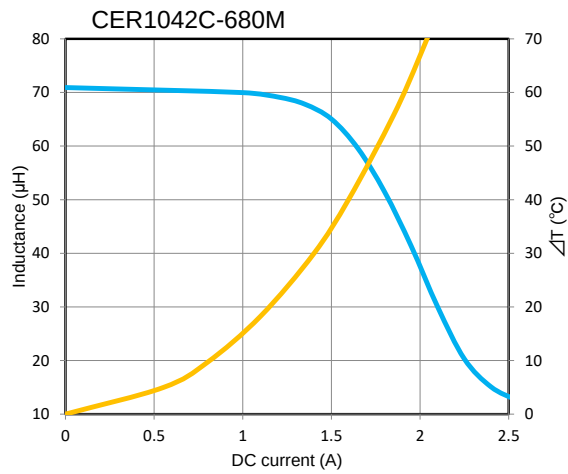
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L(25°C)



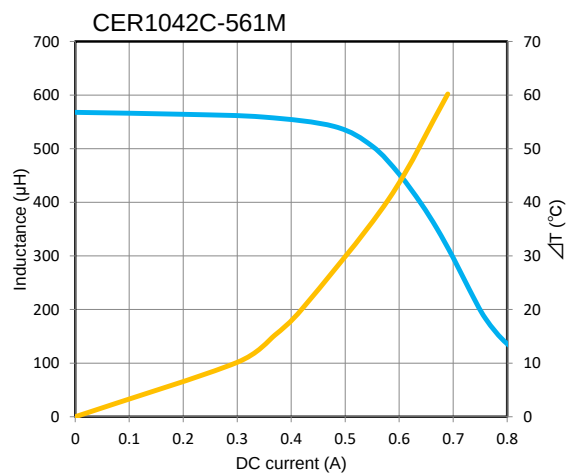
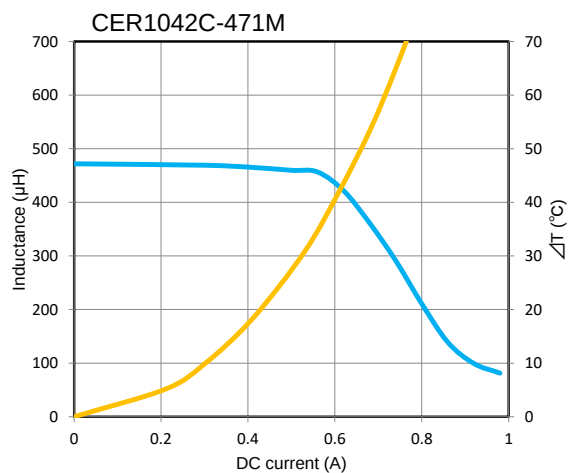
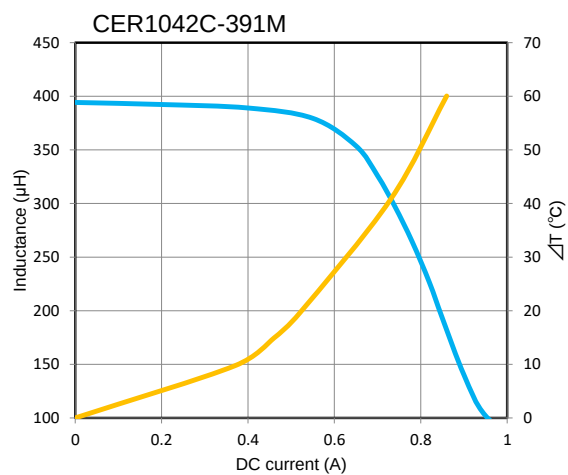
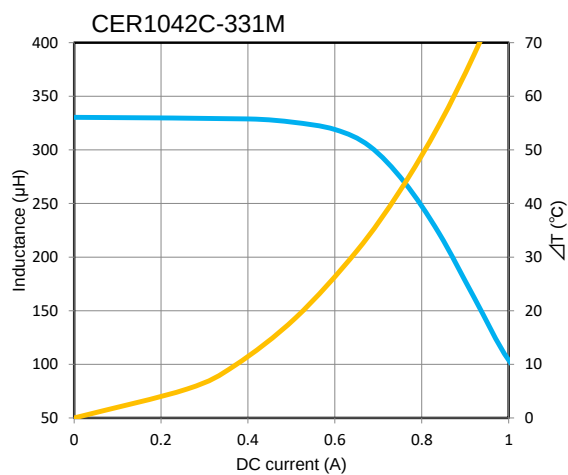
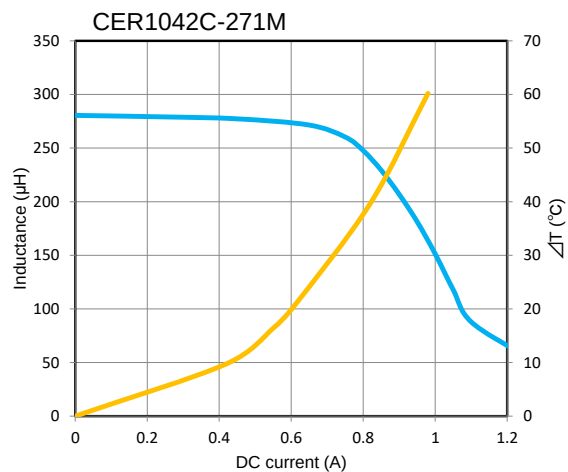
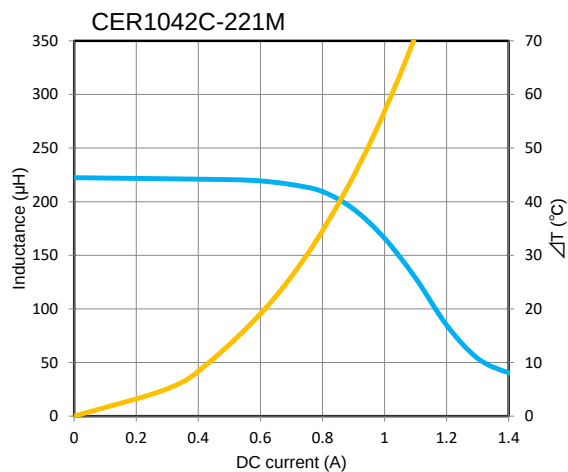
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DC bias characteristics vs Temperature Rise Graph

— L(25°C) — ΔT



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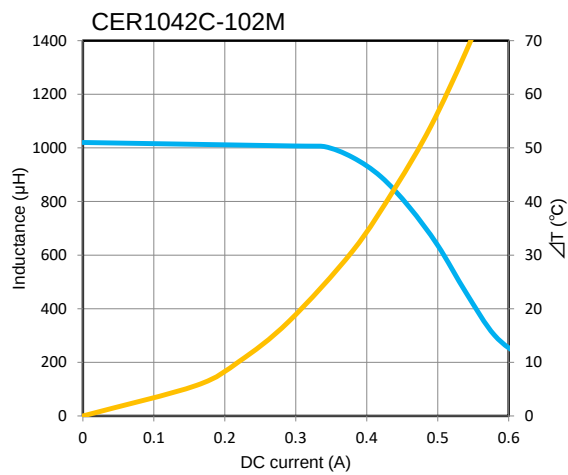
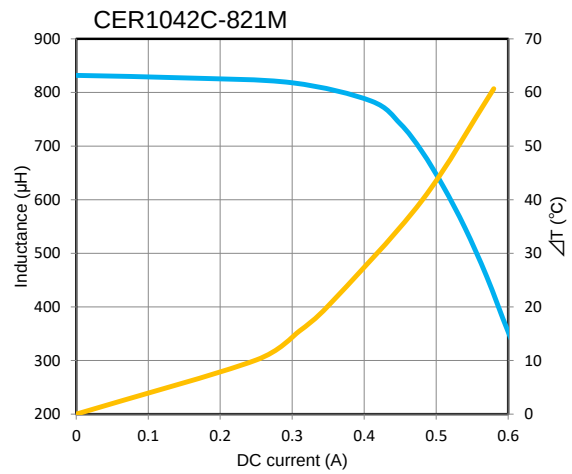
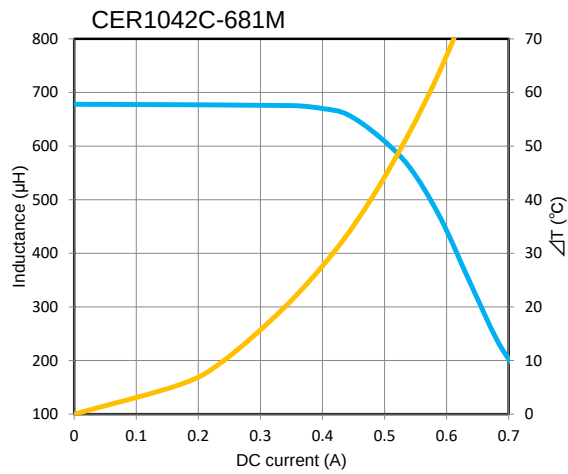
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