

## CER1042B



### ■ Features

- Cost competitive shielded type inductor
- SMD magnetic shielded type of power inductor
- Suitable for power supply choke coil
- High current, Low resistance
- Operating temperature : -40°C~+125°C(The self-heating is included)

Magnetic structure :

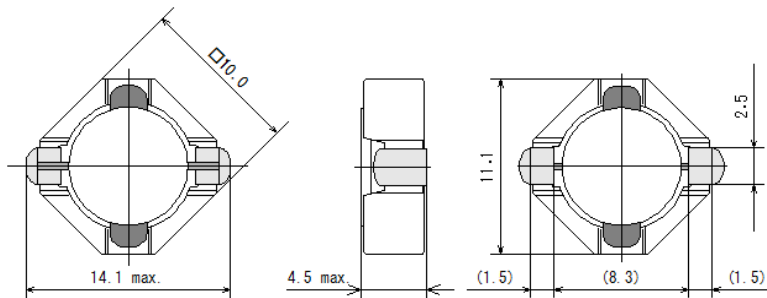


Weight : 1.5 g

### ■ Applications

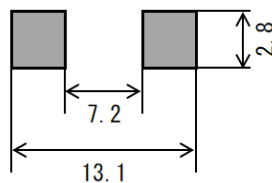
- Audio Visual/TV and Monitor, Mini System, AV Amplifier, for Professionals, Camera, Recorder
- Automotive/Car Navigation, LED Headlights
- Computer & Peripheral Device/Industrial Machines, Computer, Printer(MFP)
- Home Electronics/LED Lights
- Others/Medical, Energy, Power Supply, Transceivers, FA

### ■ Dimensions



(Unit : mm)

### ■ Recommended Land Pattern



(Unit : mm)



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## ■ Specifications

| SAGAMI Part No. | Inductance<br>( $\mu$ H) | DCR<br>( $\Omega$ )<br>$\pm 30\%$ | DC Saturation<br>Allowable Current<br>(A) |       | Temperature Rise<br>Allowable Current<br>(A) |       |
|-----------------|--------------------------|-----------------------------------|-------------------------------------------|-------|----------------------------------------------|-------|
|                 |                          |                                   | Typical                                   | Spec  | Typical                                      | Spec  |
| CER1042B-1R5N   | 1.5 $\pm 30\%$           | 0.00700                           | 12.2                                      | 9.20  | 8.25                                         | 5.90  |
| CER1042B-2R0N   | 2 $\pm 30\%$             | 0.00900                           | 10.3                                      | 7.70  | 7.65                                         | 5.60  |
| CER1042B-3R0N   | 3 $\pm 30\%$             | 0.0100                            | 9.60                                      | 6.50  | 7.20                                         | 5.15  |
| CER1042B-3R9N   | 3.9 $\pm 30\%$           | 0.0130                            | 8.25                                      | 5.70  | 6.20                                         | 4.50  |
| CER1042B-5R1N   | 5.1 $\pm 30\%$           | 0.0150                            | 7.30                                      | 4.90  | 5.60                                         | 4.00  |
| CER1042B-6R2N   | 6.2 $\pm 30\%$           | 0.0190                            | 6.75                                      | 4.45  | 4.95                                         | 4.55  |
| CER1042B-7R5N   | 7.5 $\pm 30\%$           | 0.0220                            | 6.05                                      | 4.00  | 4.65                                         | 3.35  |
| CER1042B-9R1N   | 9.1 $\pm 30\%$           | 0.0240                            | 5.65                                      | 3.75  | 4.40                                         | 3.15  |
| CER1042B-100M   | 10 $\pm 20\%$            | 0.0290                            | 5.10                                      | 3.50  | 4.00                                         | 2.90  |
| CER1042B-120M   | 12 $\pm 20\%$            | 0.0320                            | 4.90                                      | 3.15  | 3.85                                         | 2.75  |
| CER1042B-150M   | 15 $\pm 20\%$            | 0.0410                            | 4.25                                      | 2.90  | 3.35                                         | 2.45  |
| CER1042B-180M   | 18 $\pm 20\%$            | 0.0480                            | 3.55                                      | 2.60  | 3.05                                         | 2.20  |
| CER1042B-220M   | 22 $\pm 20\%$            | 0.0600                            | 3.25                                      | 2.40  | 2.75                                         | 2.00  |
| CER1042B-270M   | 27 $\pm 20\%$            | 0.0750                            | 3.15                                      | 2.20  | 2.45                                         | 1.80  |
| CER1042B-330M   | 33 $\pm 20\%$            | 0.0920                            | 2.90                                      | 2.00  | 2.20                                         | 1.60  |
| CER1042B-390M   | 39 $\pm 20\%$            | 0.100                             | 2.70                                      | 1.80  | 2.05                                         | 1.50  |
| CER1042B-470M   | 47 $\pm 20\%$            | 0.120                             | 2.45                                      | 1.60  | 1.88                                         | 1.35  |
| CER1042B-560M   | 56 $\pm 20\%$            | 0.150                             | 2.20                                      | 1.50  | 1.70                                         | 1.25  |
| CER1042B-680M   | 68 $\pm 20\%$            | 0.180                             | 1.95                                      | 1.35  | 1.55                                         | 1.10  |
| CER1042B-820M   | 82 $\pm 20\%$            | 0.210                             | 1.85                                      | 1.25  | 1.43                                         | 1.00  |
| CER1042B-101M   | 100 $\pm 20\%$           | 0.260                             | 1.60                                      | 1.15  | 1.28                                         | 0.920 |
| CER1042B-121M   | 120 $\pm 20\%$           | 0.310                             | 1.50                                      | 1.00  | 1.15                                         | 0.850 |
| CER1042B-151M   | 150 $\pm 20\%$           | 0.400                             | 1.35                                      | 0.900 | 1.03                                         | 0.740 |
| CER1042B-181M   | 180 $\pm 20\%$           | 0.480                             | 1.10                                      | 0.800 | 0.930                                        | 0.670 |
| CER1042B-221M   | 220 $\pm 20\%$           | 0.570                             | 1.05                                      | 0.700 | 0.850                                        | 0.610 |
| CER1042B-271M   | 270 $\pm 20\%$           | 0.710                             | 0.970                                     | 0.650 | 0.760                                        | 0.550 |
| CER1042B-331M   | 330 $\pm 20\%$           | 0.800                             | 0.920                                     | 0.600 | 0.710                                        | 0.510 |
| CER1042B-391M   | 390 $\pm 20\%$           | 0.990                             | 0.830                                     | 0.550 | 0.630                                        | 0.460 |
| CER1042B-471M   | 470 $\pm 20\%$           | 1.21                              | 0.790                                     | 0.500 | 0.570                                        | 0.410 |
| CER1042B-561M   | 560 $\pm 20\%$           | 1.48                              | 0.710                                     | 0.480 | 0.510                                        | 0.370 |
| CER1042B-681M   | 680 $\pm 20\%$           | 1.79                              | 0.610                                     | 0.440 | 0.460                                        | 0.340 |
| CER1042B-821M   | 820 $\pm 20\%$           | 2.09                              | 0.580                                     | 0.410 | 0.430                                        | 0.310 |
| CER1042B-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



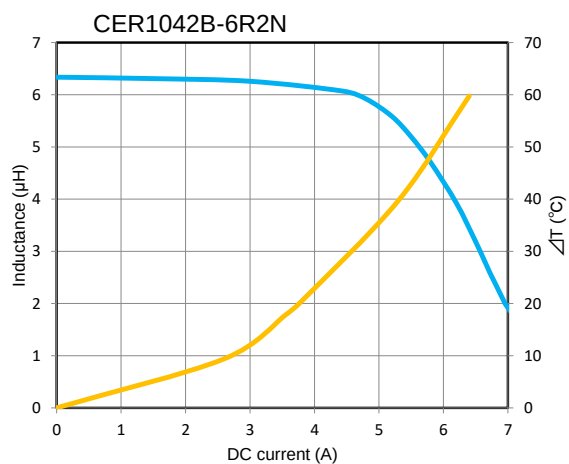
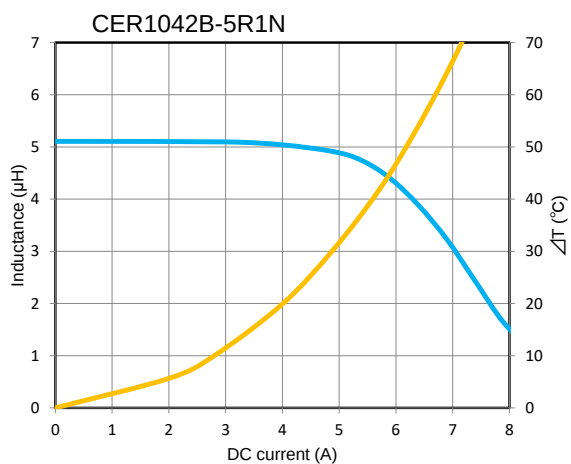
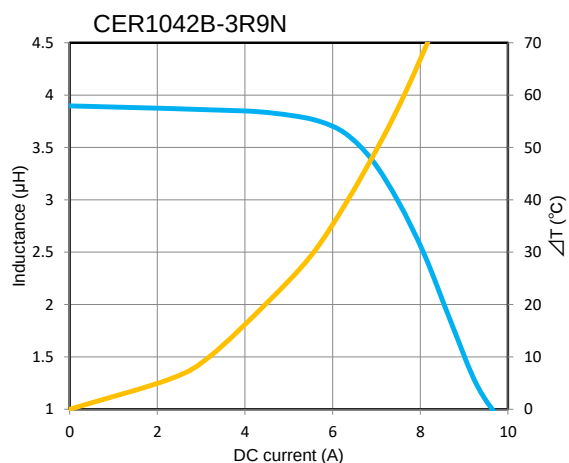
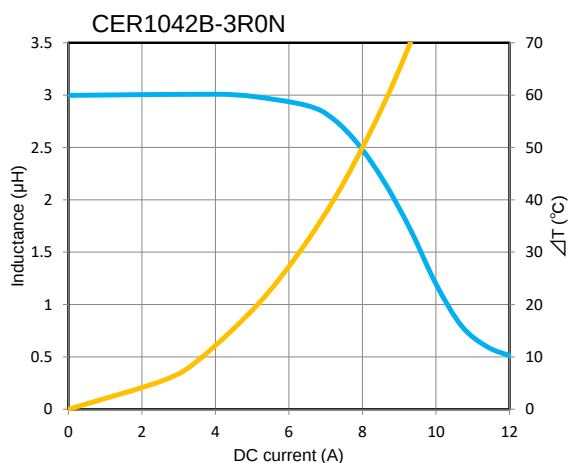
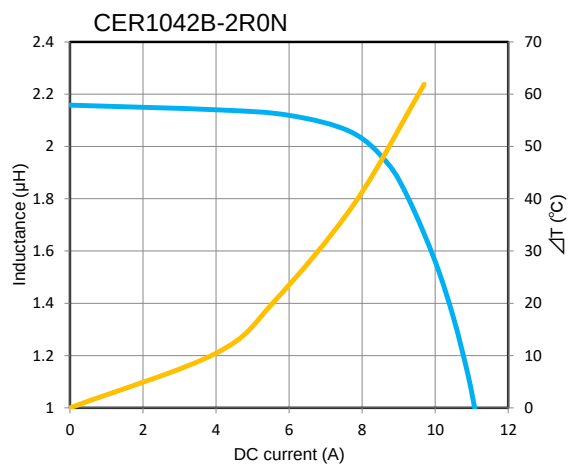
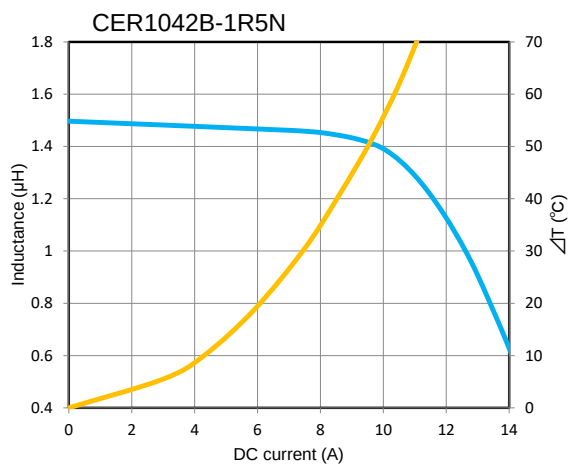
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# DC bias characteristics vs Temperature Rise Graph

■ L(25°C)      ■  $\Delta T$



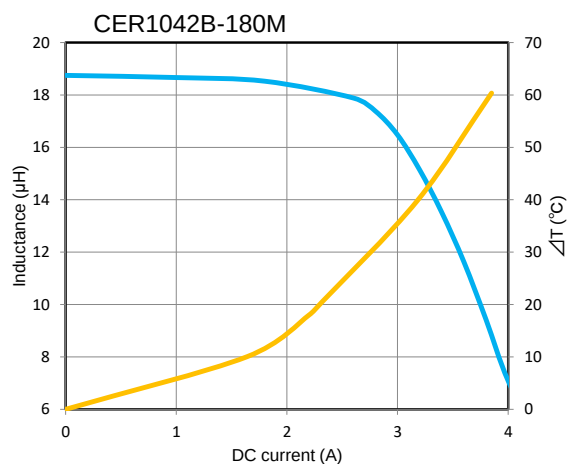
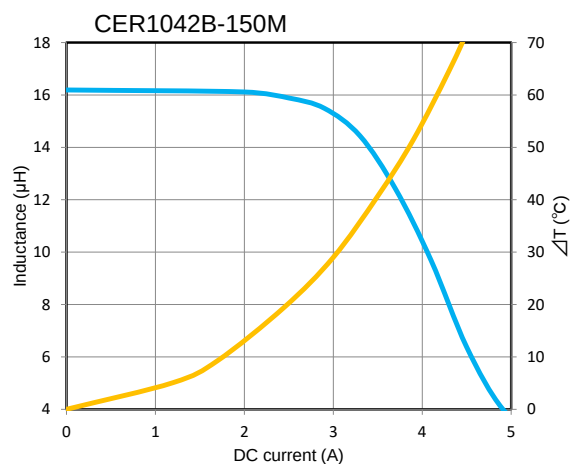
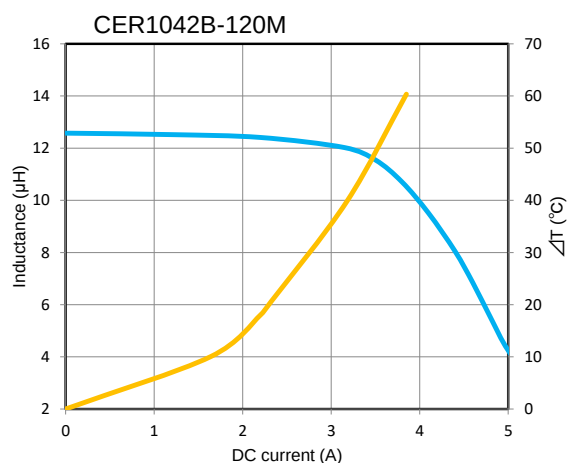
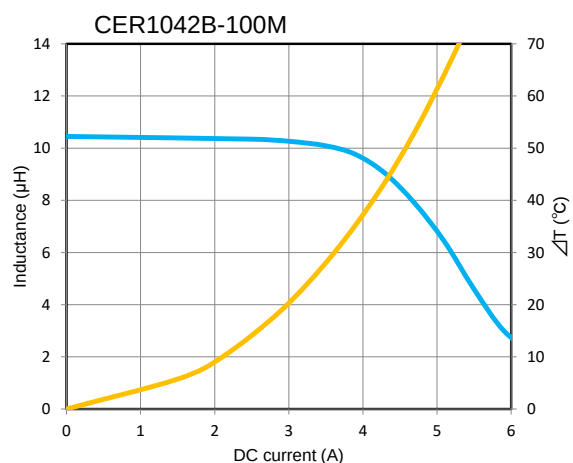
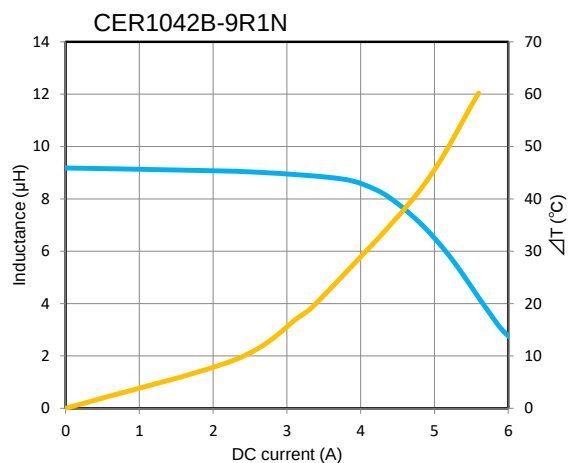
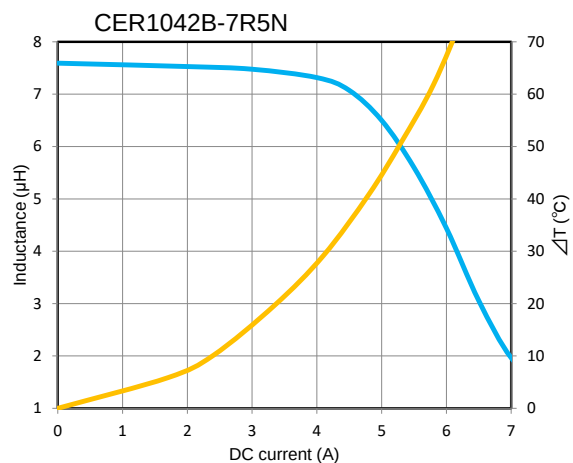
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L(25°C)



$\Delta T$



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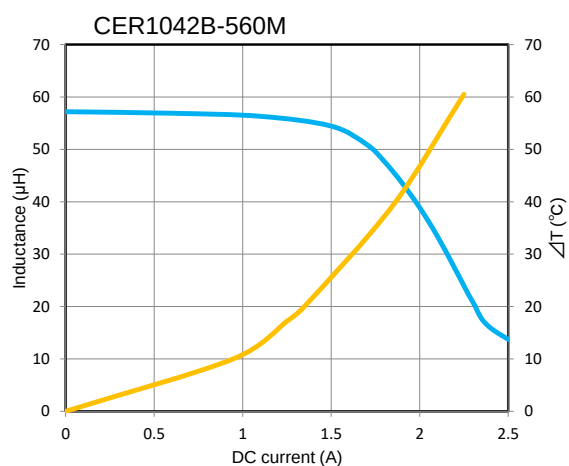
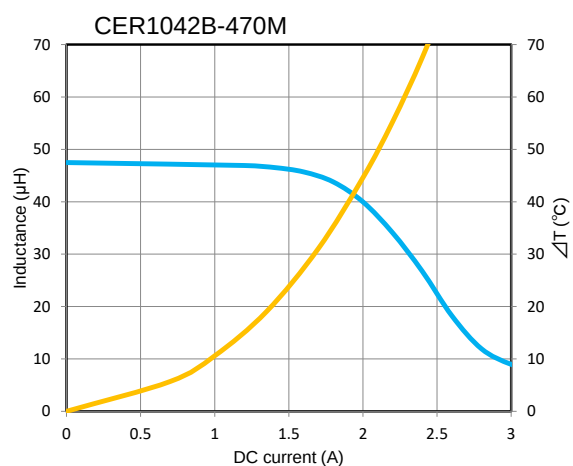
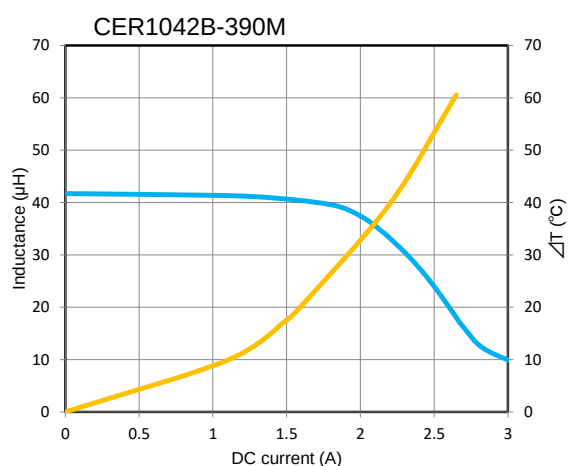
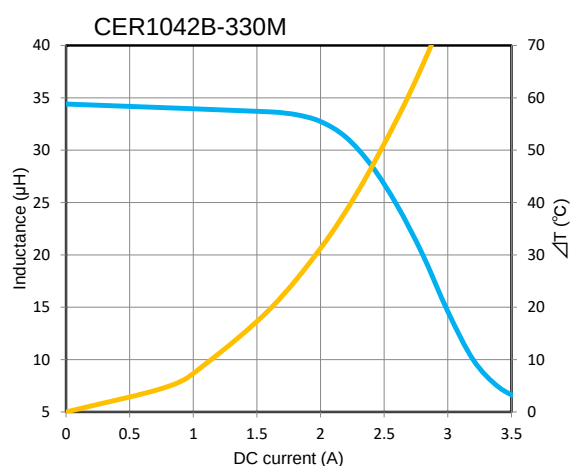
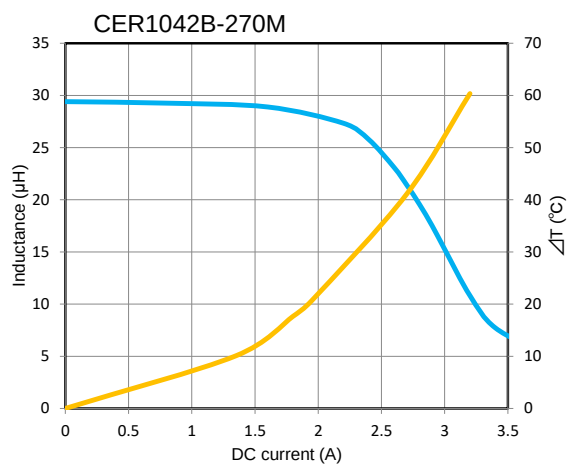
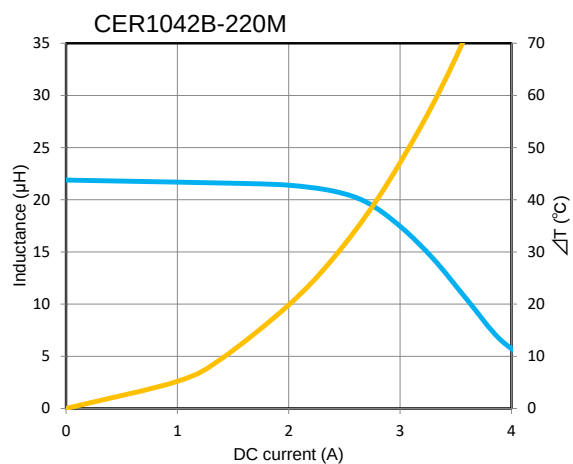
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L(25°C)



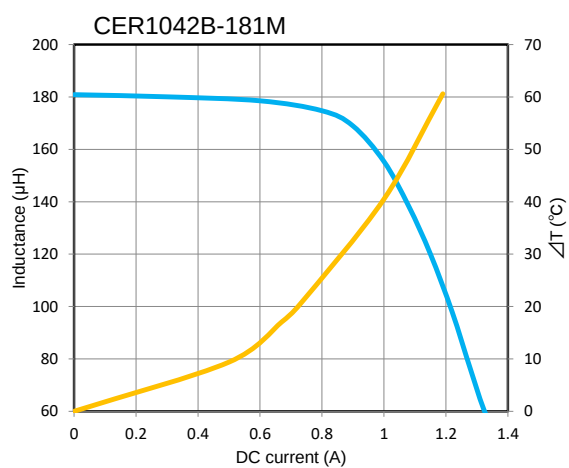
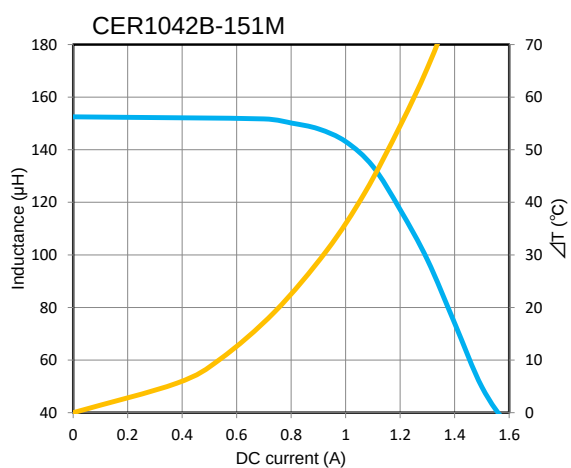
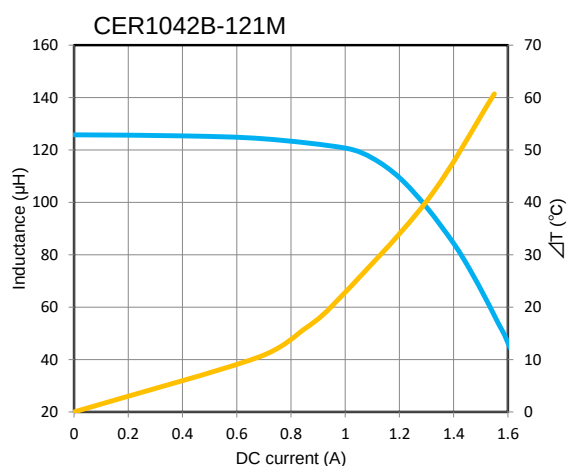
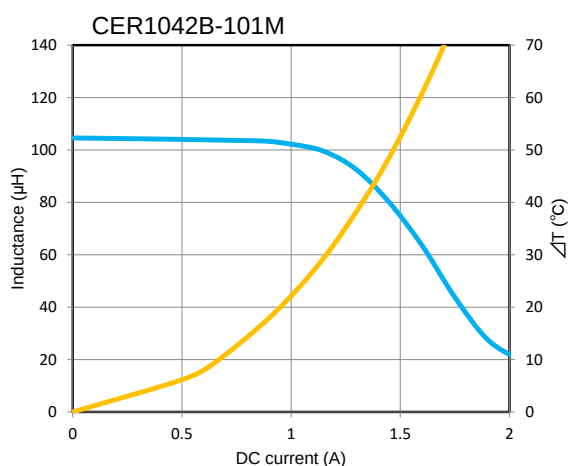
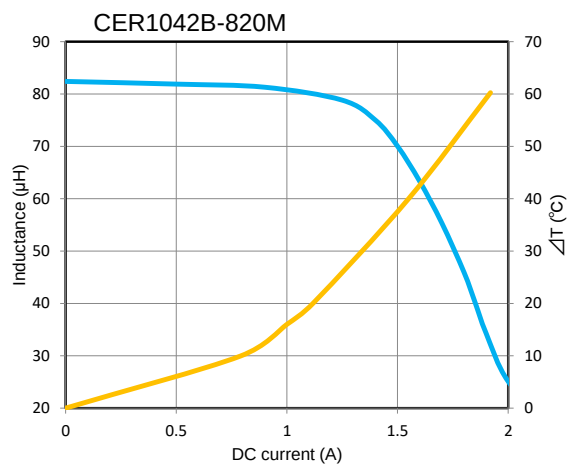
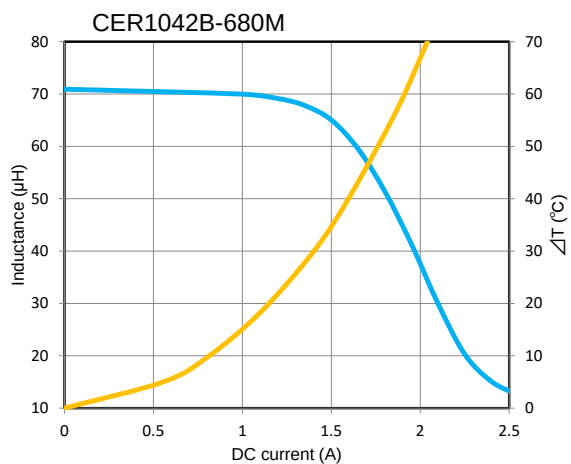
$\Delta T$



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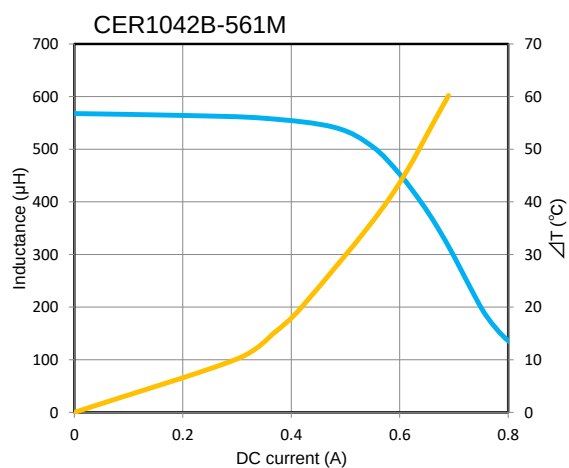
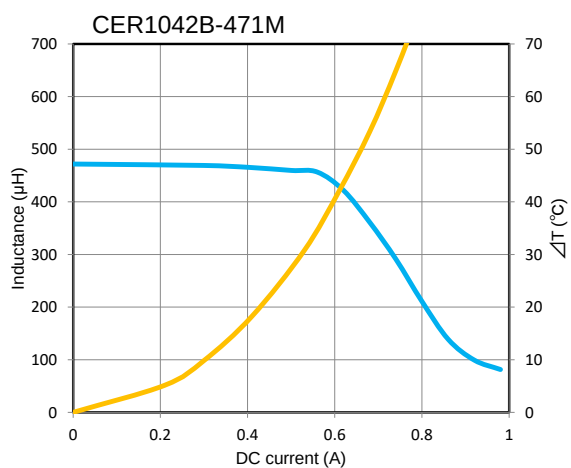
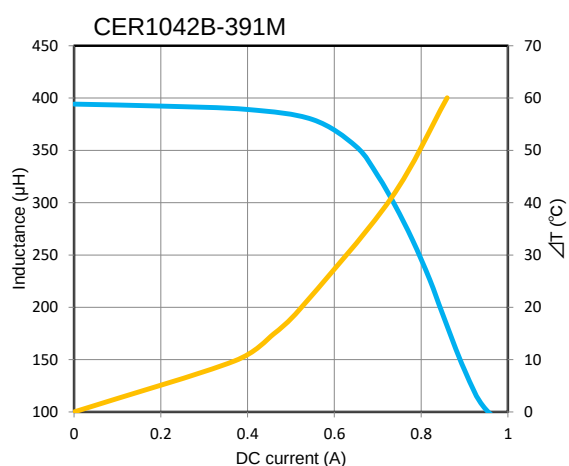
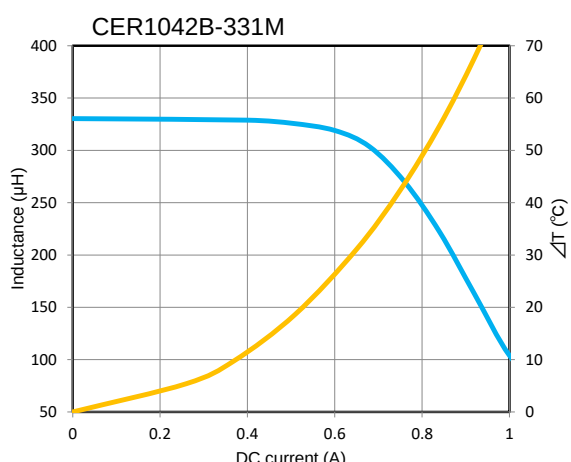
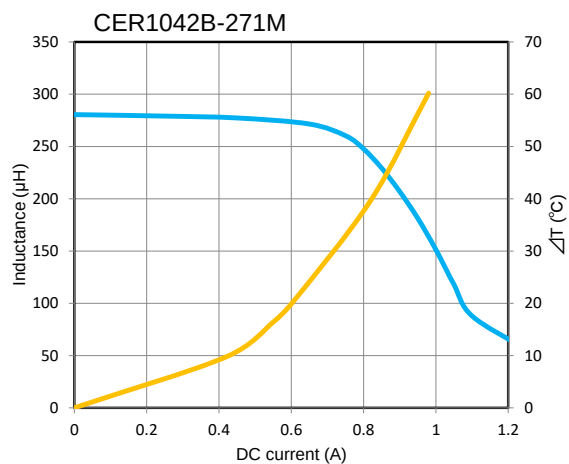
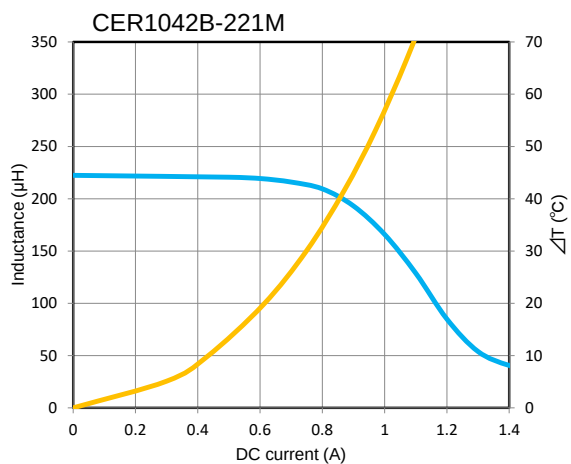
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L(25°C)



$\Delta T$



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L(25°C)



ΔT

