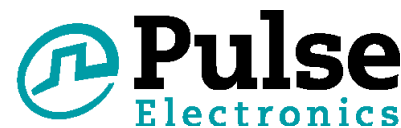










# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series



-  **Height:** 3.0mm Max
-  **Footprint:** 7.6mm x 6.9mm Max
-  **Current Rating:** up to 32.5A
-  **Inductance Range:** 0.1uH to 47.0uH
-  Shielded construction and compact design
-  High current, low DCR, and high efficiency
-  Minimized acoustic noise and minimized leakage flux
-  200Vdc Isolation between terminal and core

## Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

| Part Number   | Inductance <sup>5</sup><br>100KHz, 1V<br>(uH ±20%) | Rated Current<br><br>A | DC Resistance |      | Saturation Current Max.<br><br>A |
|---------------|--|------------------------|---------------|------|----------------------------------|
|               |  |                        | MAX.          | TYP. |                                  |
|               |  |                        | mΩ            | mΩ   |                                  |
| PA4341.101NLT | 0.10*  | 32.5                   | 1.7           | 1.2  | 60.0                             |
| PA4341.151NLT | 0.15*  | 27.0                   | 1.9           | 1.5  | 45.0                             |
| PA4341.161NLT | 0.16*  | 27.0                   | 1.9           | 1.5  | 45.0                             |
| PA4341.201NLT | 0.20*  | 24.0                   | 2.5           | 1.8  | 41.0                             |
| PA4341.221NLT | 0.22   | 23.0                   | 2.8           | 2.1  | 40.0                             |
| PA4341.301NLT | 0.30   | 21.0                   | 3.8           | 3.2  | 35.0                             |
| PA4341.331NLT | 0.33   | 20.0                   | 3.9           | 3.5  | 32.0                             |
| PA4341.361NLT | 0.36   | 19.0                   | 4.2           | 3.6  | 32.0                             |
| PA4341.471NLT | 0.47   | 17.5                   | 4.2           | 4.0  | 26.0                             |
| PA4341.561NLT | 0.56   | 16.5                   | 5.0           | 4.7  | 25.5                             |
| PA4341.601NLT | 0.60   | 16.0                   | 5.2           | 4.7  | 25.5                             |
| PA4341.681NLT | 0.68   | 15.5                   | 5.5           | 4.8  | 25.0                             |
| PA4341.751NLT | 0.75   | 14.5                   | 6.6           | 5.5  | 24.5                             |
| PA4341.821NLT | 0.82   | 13.0                   | 8.0           | 6.7  | 24.0                             |
| PA4341.102NLT | 1.0  | 11.0                   | 10.0          | 8.3  | 22.0                             |
| PA4341.122NLT | 1.2  | 10.0                   | 12.0          | 10.0 | 20.0                             |
| PA4341.152NLT | 1.5  | 9.0                    | 15.0          | 13.0 | 18.0                             |
| PA4341.182NLT | 1.8  | 8.5                    | 17.0          | 14.0 | 16.0                             |
| PA4341.202NLT | 2.0  | 8.2                    | 19.0          | 16.0 | 15.0                             |

USA 858 674 8100

Germany 49 2354 777 100

Singapore 65 6287 8998

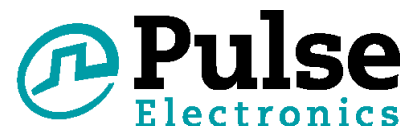
Shanghai 86 21 62787060

China 86 755 33966678

Taiwan 886 3 4356768

# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series



Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

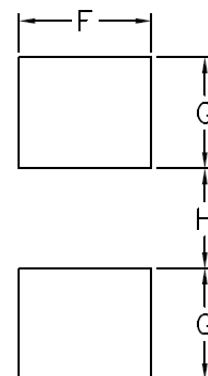
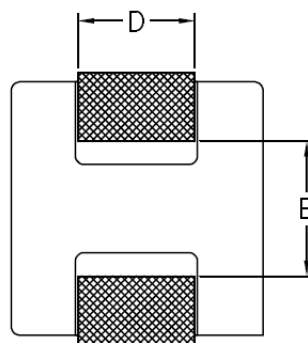
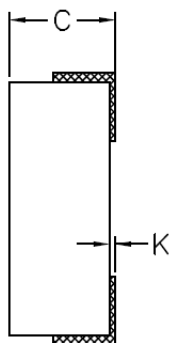
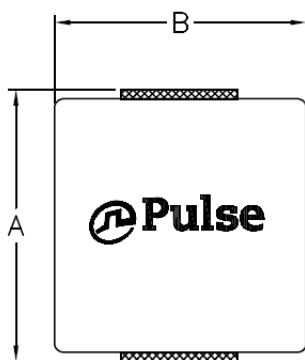
| Part Number   | Inductance <sup>5</sup><br>100KHz, 1V<br>( $\mu\text{H} \pm 20\%$ ) | Rated Current<br>A | DC Resistance |            | Saturation Current Max.<br>A |
|---------------|---|--------------------|---------------|------------|------------------------------|
|               |   |                    | MAX.          | TYP.       |                              |
|               |   |                    | m $\Omega$    | m $\Omega$ |                              |
| PA4341.222NLT | 2.2   | 8.0                | 20.0          | 18.0       | 14.0                         |
| PA4341.252NLT | 2.5   | 7.0                | 22.0          | 20.0       | 13.0                         |
| PA4341.332NLT | 3.3   | 6.0                | 30.0          | 28.0       | 13.5                         |
| PA4341.472NLT | 4.7   | 5.5                | 40.0          | 37.0       | 10.0                         |
| PA4341.562NLT | 5.6   | 5.0                | 48.0          | 43.0       | 9.0                          |
| PA4341.682NLT | 6.8   | 4.5                | 60.0          | 54.0       | 8.0                          |
| PA4341.822NLT | 8.2   | 4.0                | 68.0          | 64.0       | 7.5                          |
| PA4341.103NLT | 10.0  | 3.5                | 85.0          | 75.0       | 6.0                          |
| PA4341.123NLT | 12.0  | 3.3                | 93.0          | 81.0       | 5.5                          |
| PA4341.223NLT | 22.0  | 2.0                | 190.0         | 165.0      | 3.5                          |
| PA4341.473NLT | 47.0  | 1.75               | 363.0         | 302.0      | 2.0                          |

## Notes:

- Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effect) to the component.
- The rated current is the DC current required to raise the component temperature by approximately 40°C. Take note that the components' performance varies depending on the system condition. It is suggested that the component be tested at the system level, to verify the temperature rise of the component during system operation.
- The part temperature (ambient+temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
- Please note that the inductance tolerance is  $\pm 20\%$  for all parts except PA4341.101NLT, PA4341.151NLT, PA4341.161NLT, and PA4341.201NLT 's tolerance is  $\pm 30\%$ .
- Automotive grade products are available with the addition of the *ANLT* suffix (ie. PA4341.222ANLT)

## PA4341.XXXNLT

## Mechanical



FINAL LAYOUT

SUGGESTED PAD LAYOUT

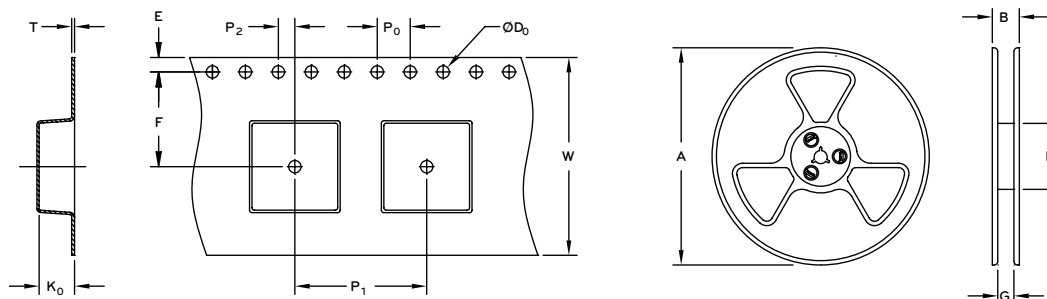
# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series

| Series        | A       | B       | C       | D     | E     | F     | G      | H     | K        |
|---------------|---------|---------|---------|-------|-------|-------|--------|-------|----------|
| PA4341.XXXNLT | 7.6 MAX | 6.9 MAX | 3.0 MAX | (3.0) | (3.7) | (3.5) | (2.95) | (2.5) | (0-0.22) |

All Dimensions in mm.

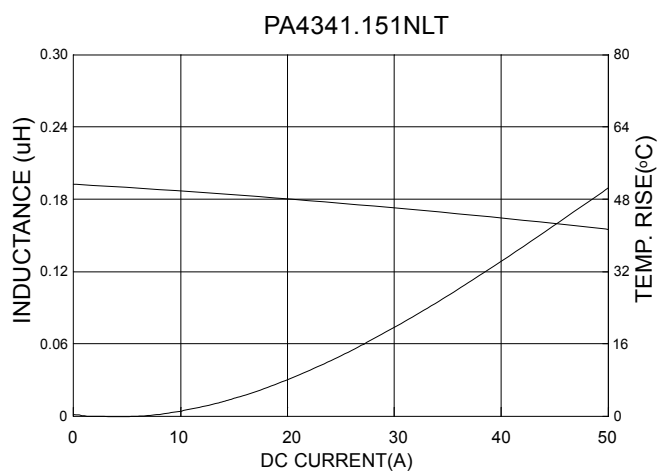
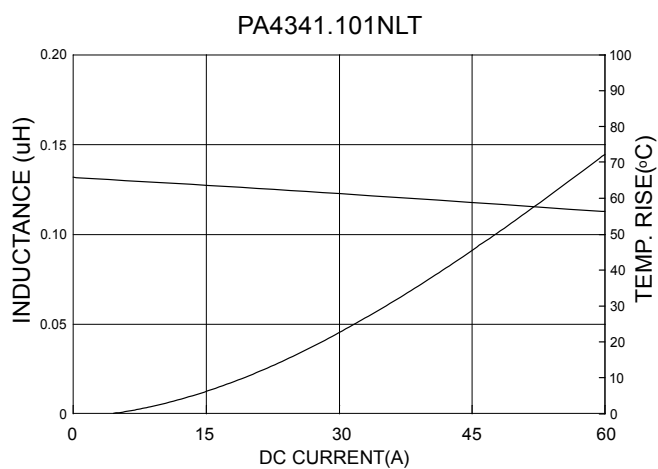
## TAPE & REEL INFO



## SURFACE MOUNTING TYPE, REEL/TAPE LIST

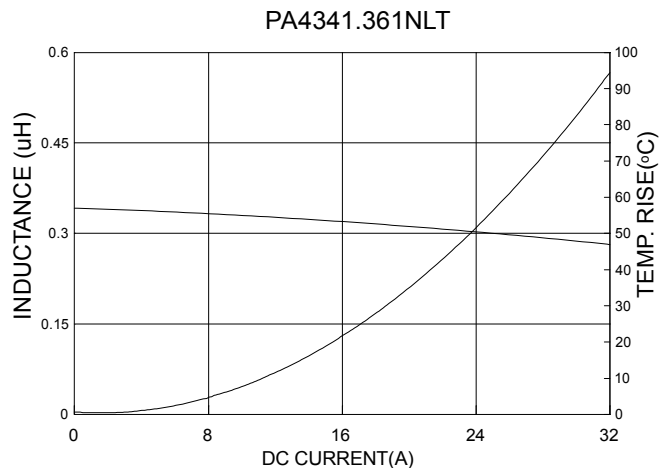
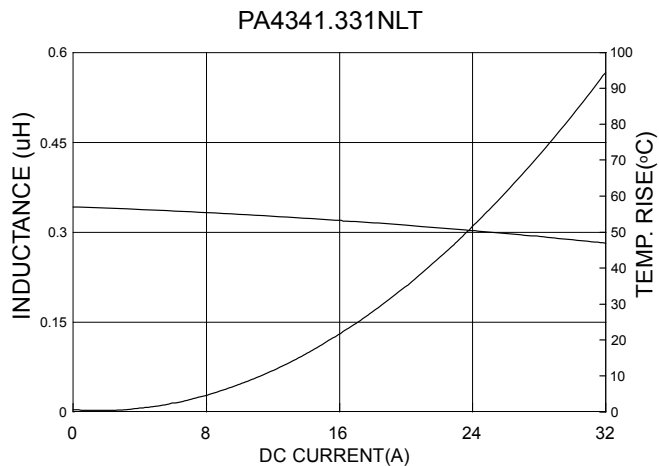
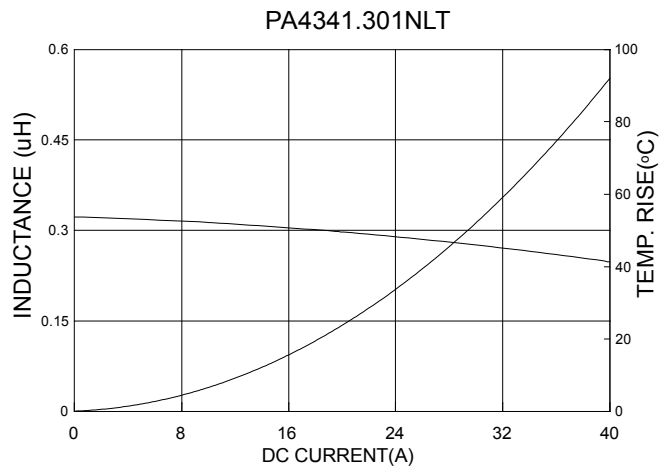
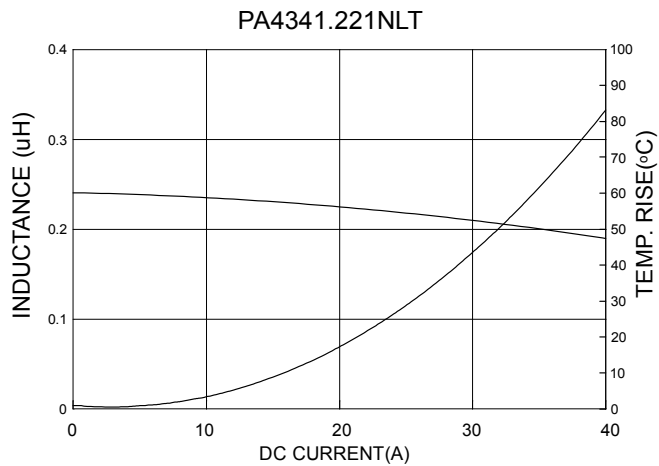
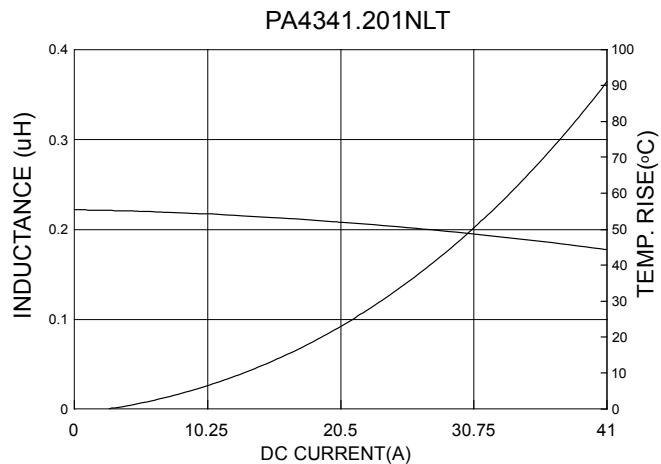
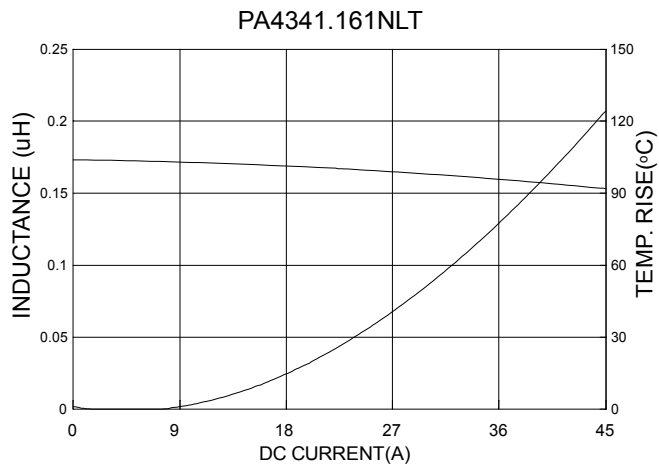
|               | REEL SIZE (mm) |     |    |     | TAPE SIZE (mm) |     |                |                |                |                |    |      |                | QTY      |
|---------------|----------------|-----|----|-----|----------------|-----|----------------|----------------|----------------|----------------|----|------|----------------|----------|
|               | A              | B   | G  | N   | E              | F   | D <sub>0</sub> | P <sub>1</sub> | P <sub>0</sub> | P <sub>2</sub> | W  | T    | K <sub>0</sub> | PCS/REEL |
| PA4341.XXXNLT | Ø330           | N/A | 16 | 100 | 1.75           | 7.5 | 1.5            | 12             | 4              | 2              | 16 | 0.35 | 3.3            | 1000     |

## Typical Performance Curves



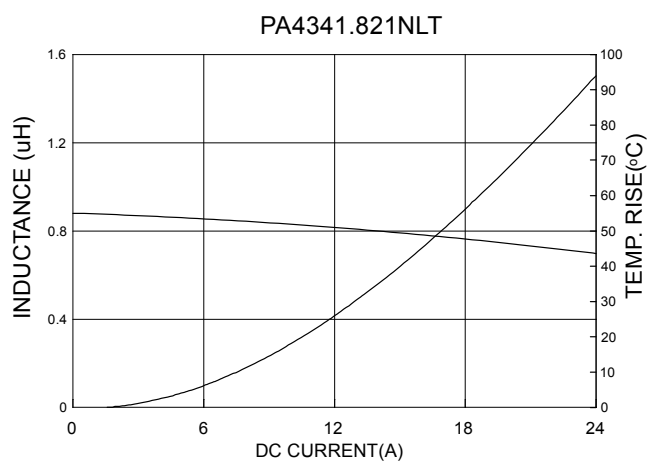
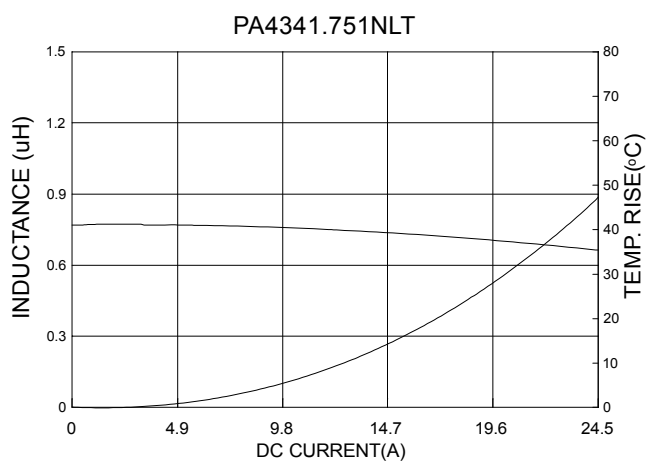
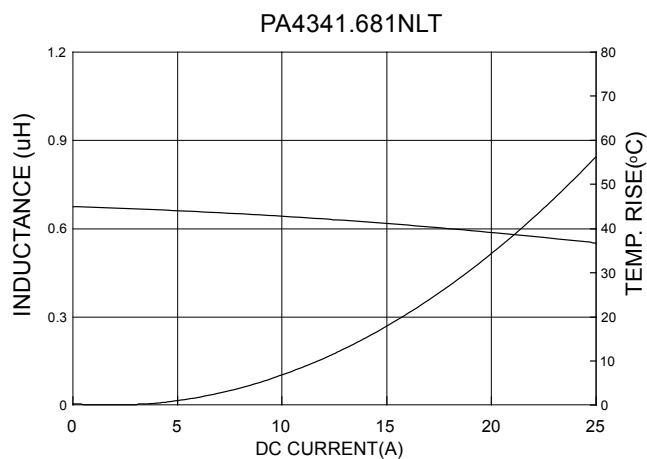
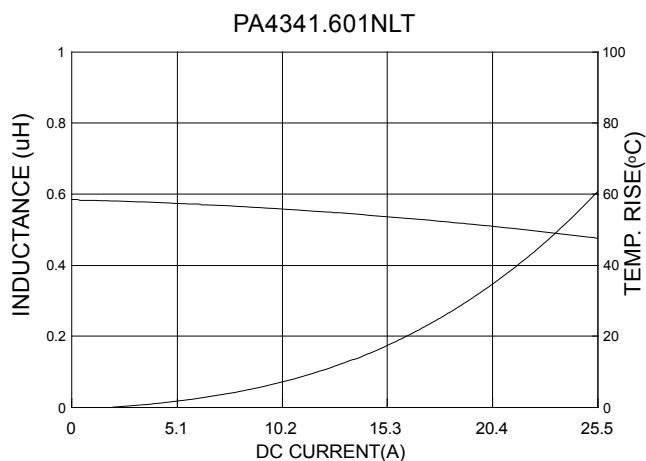
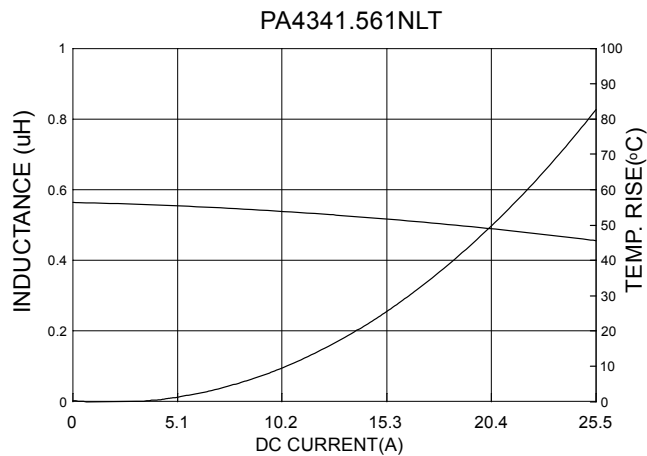
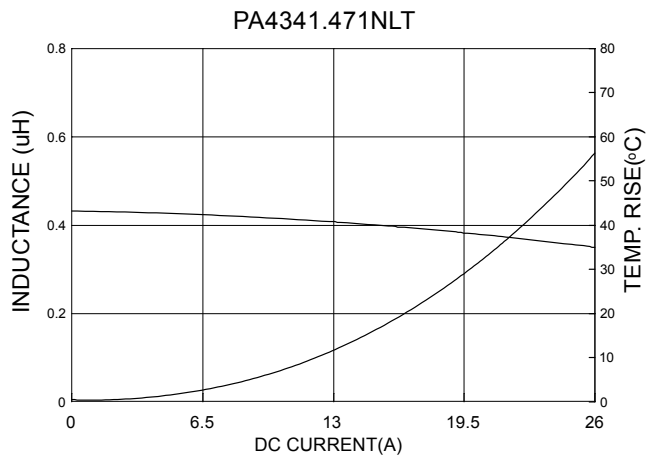
# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series



# SMT Power Inductor

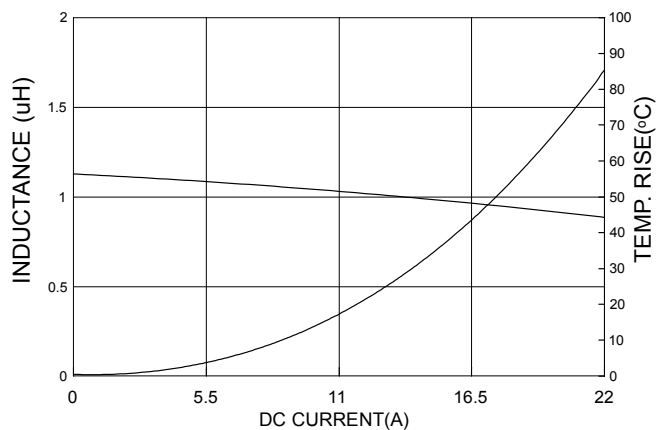
High Current Molded Power Inductor - PA4341.XXXNLT Series



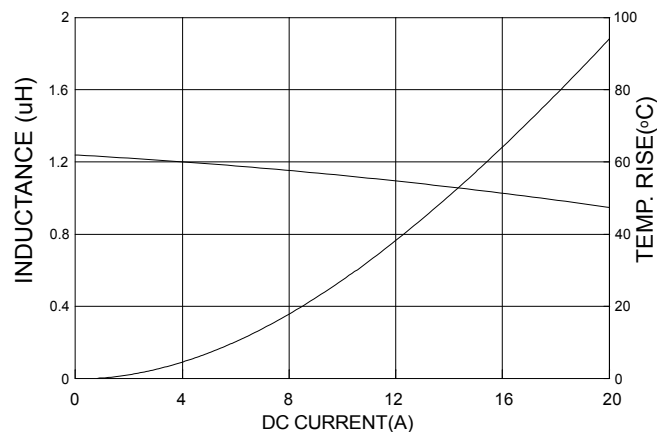
# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series

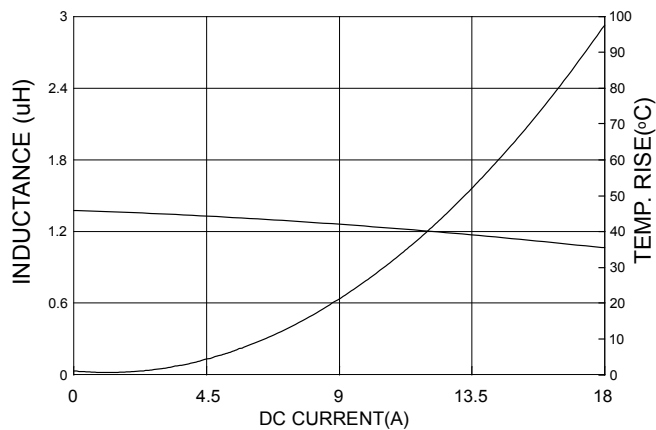
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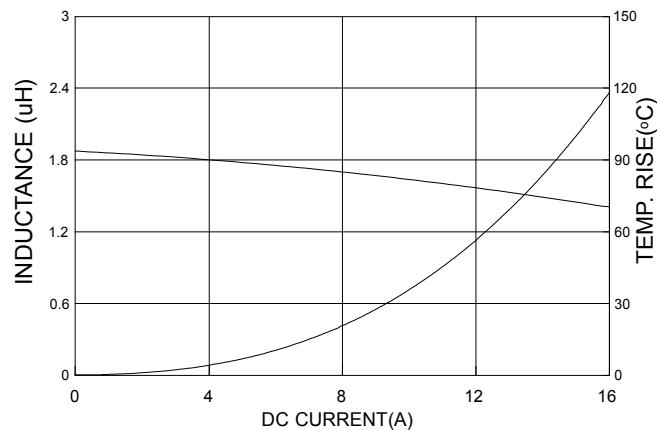
PA4341.122NLT



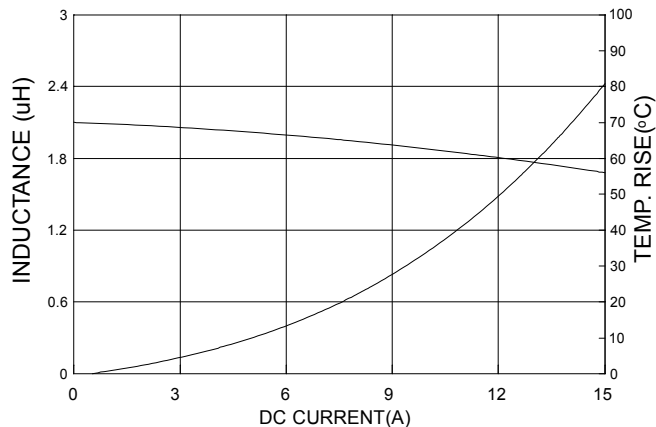
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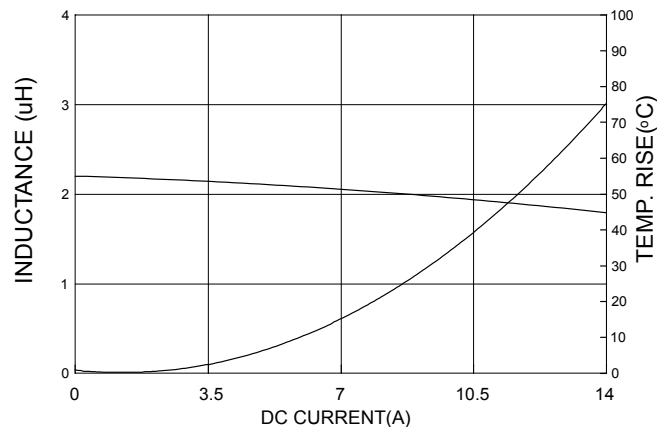
PA4341.182NLT



PA4341.202NLT

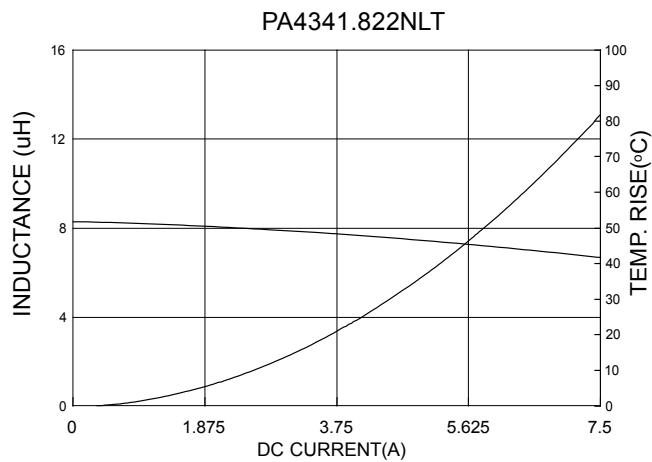
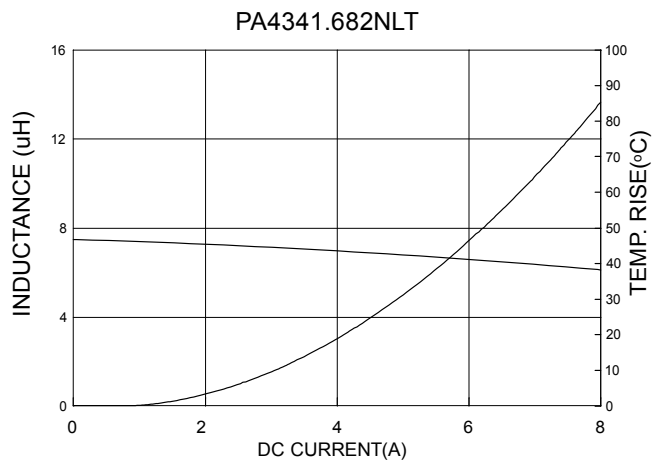
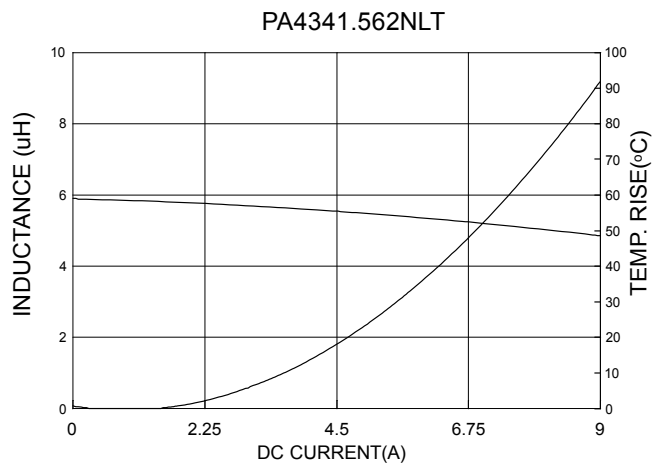
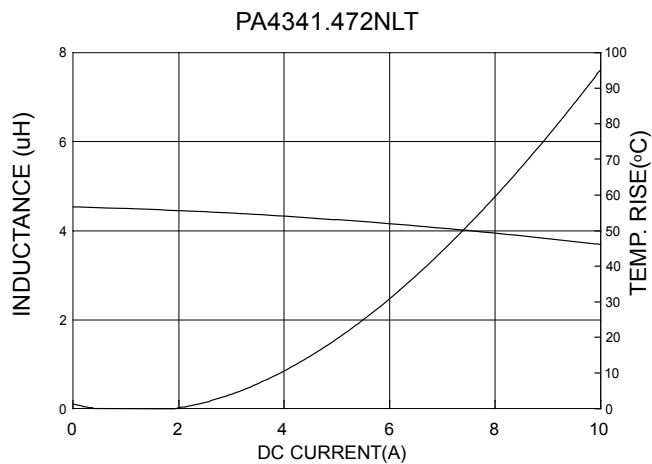
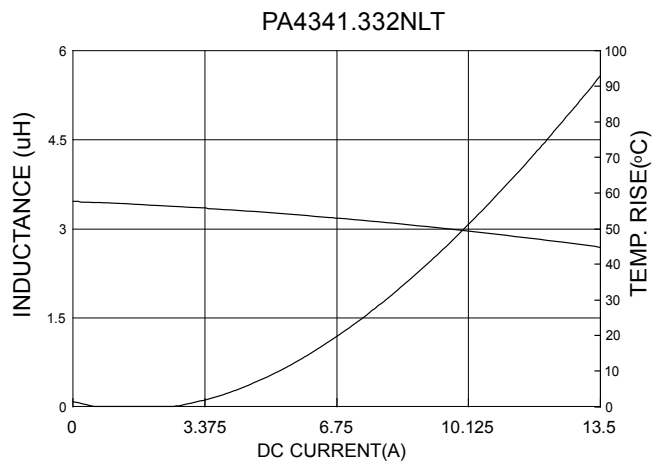
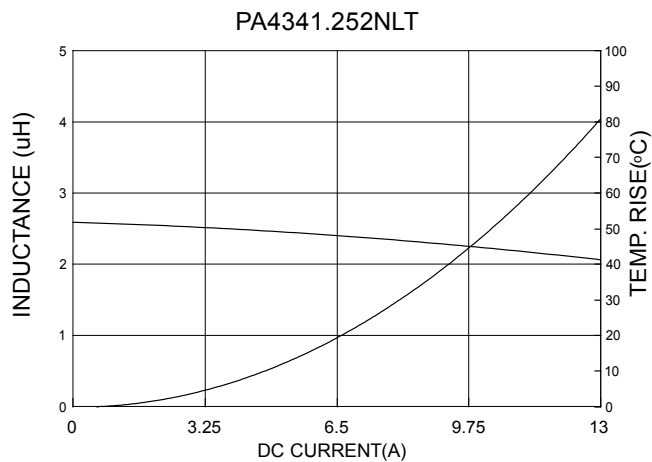


PA4341.222NLT



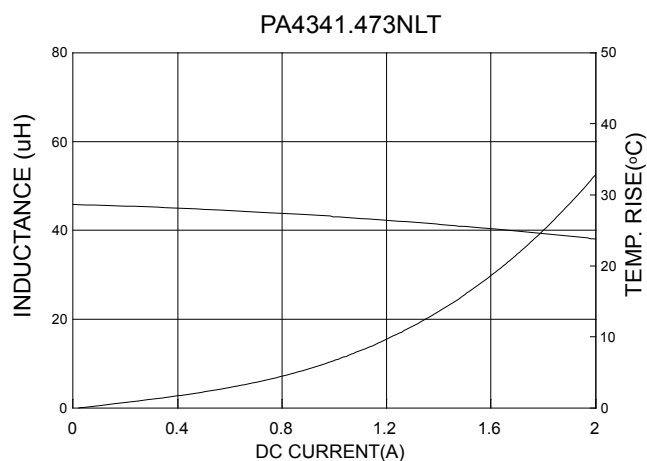
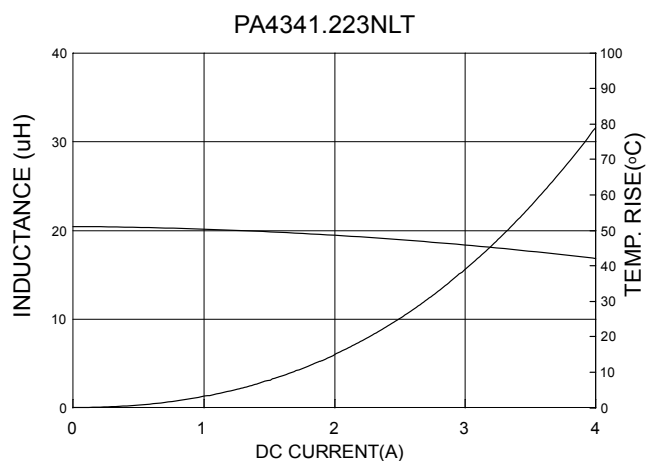
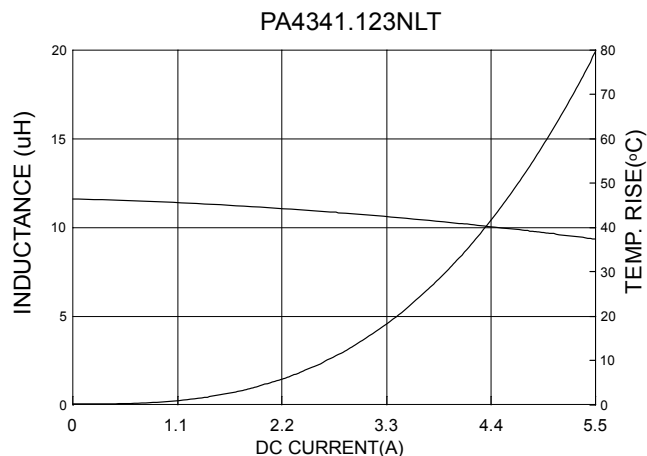
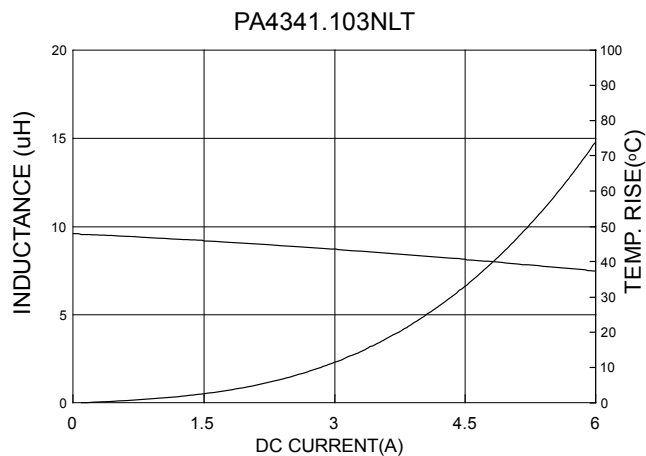
# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series



# SMT Power Inductor

High Current Molded Power Inductor - PA4341.XXXNLT Series



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