High Current Molded Power Inductor - PA4342.XXXNLT Series











Height: 4.0mm Max

Pootprint: 11.5mm x 10.3mm Max

Current Rating: up to 43.0A

Pinductance Range: 0.15uH to 68.0uH

Shielded construction and compact designHigh 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 -55°C to +125°C | | | | | | | | | |
|--|-------------------|---------|-----------|---------------|-----------------------|-------------|--|--|--|
| | Inductance | Rated | | DC istance | Saturation Current | Mechanical | | | |
| Part | 100KHz, 1V | Current | MAX. TYP. | | Max. | | | | |
| Number | uH | A | mΩ | mΩ | A | | | | |
| PA4342.151NLT | 0.15 ± 30% | 43.0 | 0.6 | 0.5 | 75.0 | Footprint 1 | | | |
| PA4342.221NLT | 0.22 ± 20% | 35.0 | 1.0 | 0.8 | 60.0 | Footprint 1 | | | |
| PA4342.271NLT | 0.27 ± 20% | 33.0 | 1.0 | 0.82 | 60.0 | Footprint 1 | | | |
| PA4342.361NLT | 0.36 ± 20% | 31.0 | 1.2 | 1.05 | 60.0 | Footprint 1 | | | |
| PA4342.391NLT | 0.39 ± 20% | 30.0 | 1.3 | 1.1 | 60.0 | Footprint 1 | | | |
| PA4342.451NLT | 0.45 ± 20% | 29.0 | 1.5 | 1.3 | 45.0 | Footprint 1 | | | |
| PA4342.471NLT | 0.47 ± 20% | 28.0 | 1.5 | 1.3 | 43.0 | Footprint 1 | | | |
| PA4342.561NLT | 0.56 ± 20% | 25.0 | 1.8 | 1.6 | 40.0 | Footprint 1 | | | |
| PA4342.681NLT | 0.68 ± 20% | 22.0 | 2.7 | 2.4 | 39.0 | Footprint 1 | | | |
| PA4342.102NLT | 1.00±20% | 18.0 | 3.3 | 3.0 | 36.0 | Footprint 1 | | | |
| PA4342.122NLT | 1.20 ± 20% | 17.0 | 3.8 | 3.3 | 33.0 | Footprint 1 | | | |
| PA4342.152NLT | 1.50 ± 20% | 16.0 | 4.6 | 4.0 | 33.0 | Footprint 2 | | | |
| PA4342.222NLT | 2.20 ± 20% | 12.0 | 7.0 | 6.5 | 27.0 | Footprint 2 | | | |
| PA4342.252NLT | 2.50 ± 20% | 11.5 | 8.7 | 7.9 | 23.0 | Footprint 2 | | | |
| PA4342.332NLT | 3.30±20% | 11.0 | 11.8 | 10.8 | 20.0 | Footprint 2 | | | |
| PA4342.402NLT | 4.00 ± 20% | 10.2 | 15.0 | 13.0 | 18.0 | Footprint 2 | | | |
| PA4342.472NLT | 4.70±20% | 10.0 | 15.5 | 15.0 | 17.0 | Footprint 2 | | | |
| PA4342.562NLT | 5.60 ± 20% | 9.0 | 19.3 | 17.0 | 14.0 | Footprint 2 | | | |
| PA4342.682NLT | 6.80 ± 20% | 8.5 | 23.3 | 17.5 | 13.5 | Footprint 2 | | | |



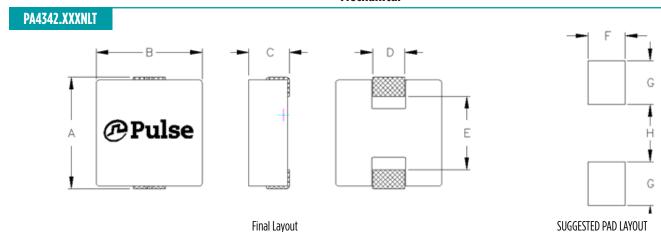
| Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C | | | | | | | | | |
|--|-------------------|---------|------------|------------|-----------------------|-------------|--|--|--|
| | Inductance | Rated | D Resis | C tance | Saturation Current | Mechanical | | | |
| Part | 100KHz, 1V | Current | MAX. | TYP. | Max. | | | | |
| Number | uH | A | mΩ | mΩ | A | | | | |
| PA4342.822NLT | 8.20 ± 20% | 8.0 | 25.5 | 20.0 | 12.5 | Footprint 2 | | | |
| PA4342.103NLT | 10.0±20% | 7.5 | 30.0 | 27.0 | 12.0 | Footprint 2 | | | |
| PA4342.153NLT | 15.0±20% | 6.25 | 45.0 | 40.0 | 10.0 | Footprint 2 | | | |
| PA4342.223NLT | 22.0±20% | 5.0 | 74.0 | 64.0 | 7.0 | Footprint 2 | | | |
| PA4342.273NLT | 27.0 ± 20% | 4.0 | 100.0 | 86.0 | 6.0 | Footprint 2 | | | |
| PA4342.333NLT | 33.0±20% | 3.5 | 112.0 | 92.0 | 5.0 | Footprint 2 | | | |
| PA4342.473NLT | 47.0±20% | 3.0 | 167.0 | 145.0 | 4.5 | Footprint 2 | | | |
| PA4342.683NLT | 68.0±20% | 2.0 | 240.0 | 205.0 | 3.0 | Footprint 2 | | | |

Notes:

- 1. Actual temperature of the component during system operation (ambient plus tempera- 3. The rated current is the DC current required to raise the component temperature by ture rise) must be within the standard operating range.

 The rated current is the DC current required to raise the component temperature by approximately 40°C. Take note that the components' performanc varies depending
- 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.
- approximately 40°C. Take note that the components' performanc 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.
 - 4. 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.

Mechanical



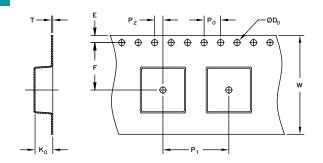
| Series | Mechanical | A | В | C | D | E | F | G | Н |
|---------------|-------------|----------|----------|---------|-------|-------|-------|-------|-------|
| PA4342.XXXNLT | Footprint 1 | 11.5 Max | 10.3 Max | 4.0 Max | (2.5) | (6.4) | (3.0) | (4.1) | (5.4) |
| PA4342.XXXNLT | Footprint 2 | 11.5 Max | 10.3 Max | 4.0 Max | (3.0) | (6.4) | (3.5) | (4.1) | (5.4) |

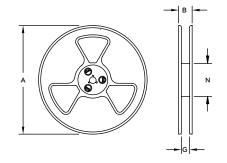
All Dimensions in mm.

High Current Molded Power Inductor - PA4342.XXXNLT Series



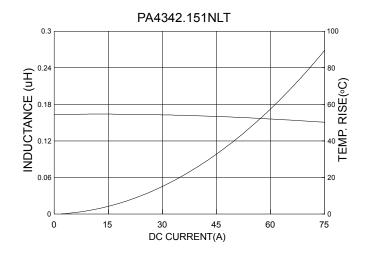
TAPE & REEL INFO

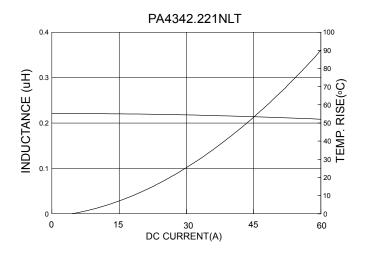




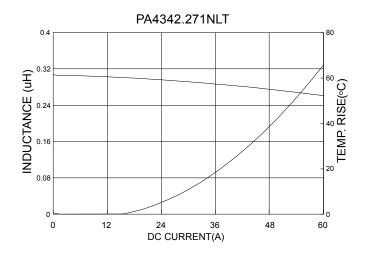
| SURFACE MOUNTING TYPE, REEL/TAPE LIST | | | | | | | | | | | | | | |
|---------------------------------------|------|-------------------------------|----|-----|------|------|----------------|-----------------------|----------------|-----------------------|----|------|----------------|----------|
| | | REEL SIZE (mm) TAPE SIZE (mm) | | | | | | | QTY | | | | | |
| | A | В | G | N | E | F | D _o | P ₁ | P _o | P ₂ | W | T | K _o | PCS/REEL |
| PA4342.XXXNLT | Ø330 | N/A | 24 | 100 | 1.75 | 11.5 | 1.5 | 16 | 4 | 2 | 24 | 0.35 | 4.5 | 500 |

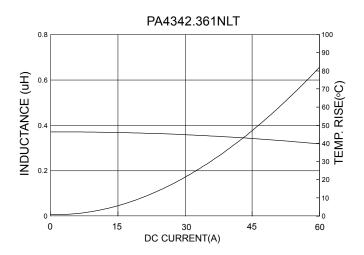
Typical Performance Curves

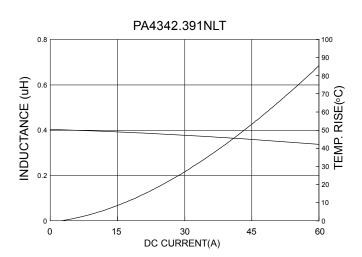


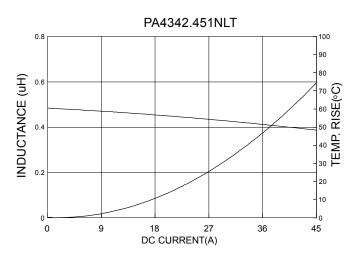


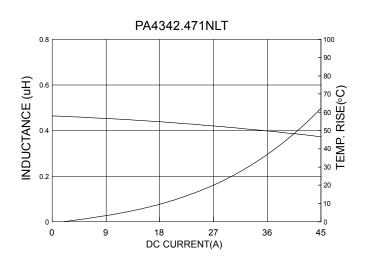


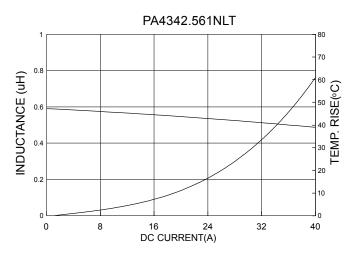




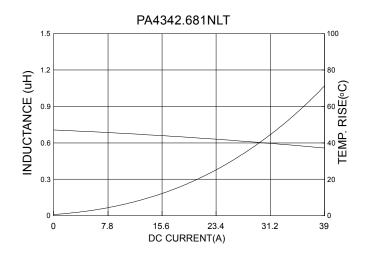


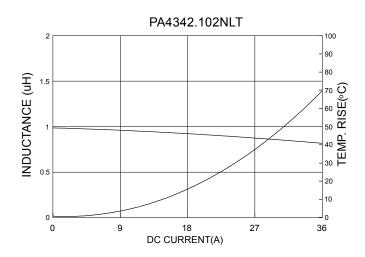


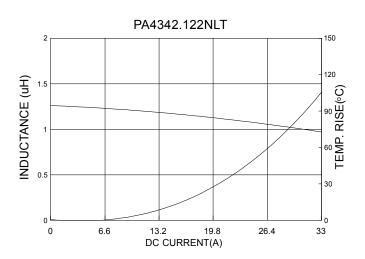


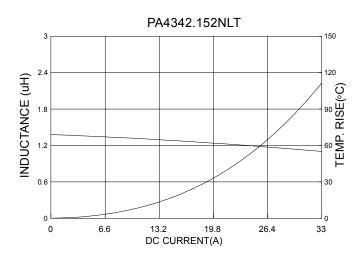


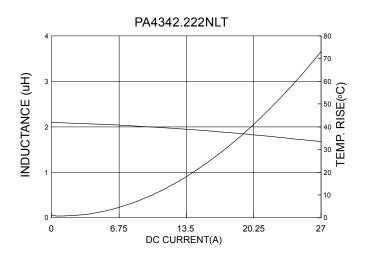


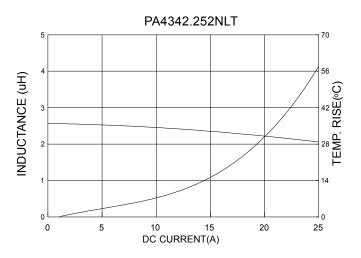




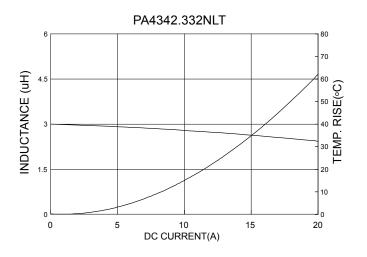


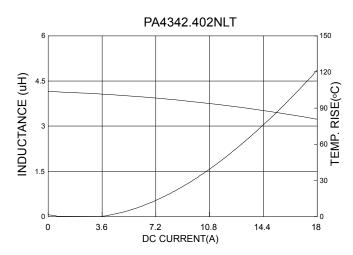


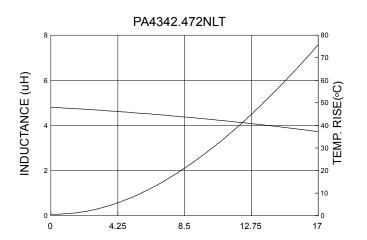


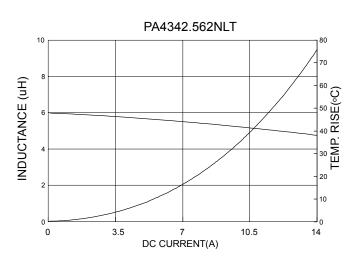


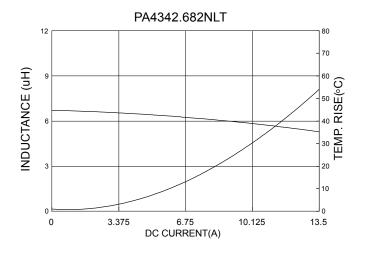


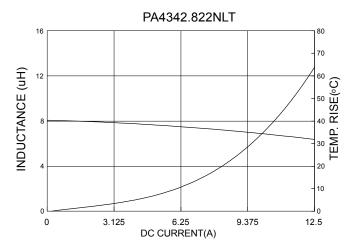




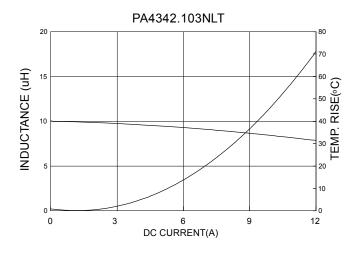


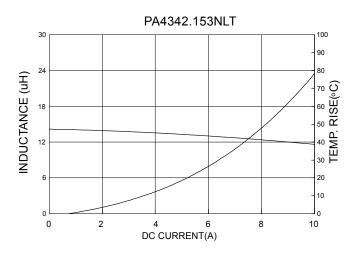


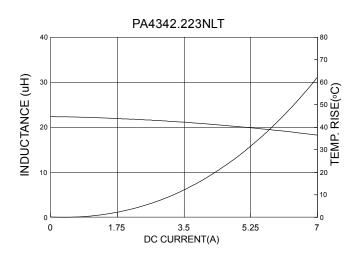


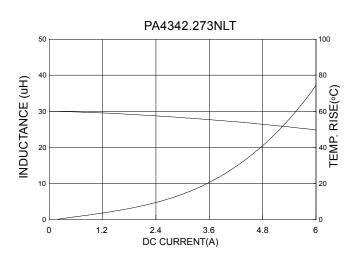


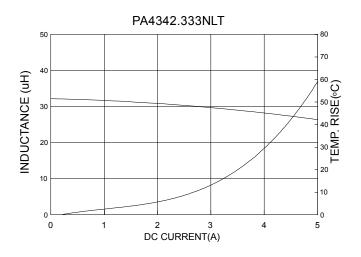


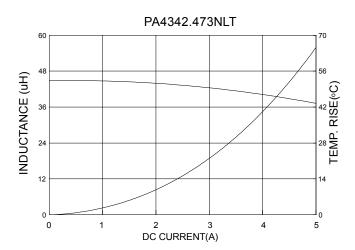






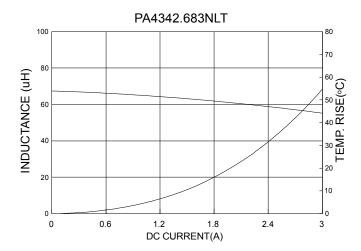






High Current Molded Power Inductor - PA4342.XXXNLT Series





| For More Information | | | | | | | | | | |
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