SMT Power Inductor

High Current Molded Power Inductor - PA4343.XXXNLT Series

Pulse Electronics

- ***NEW -*** *AEC-Q200 Qualified*
- ***Height:*** *6.5mm Max*
- ***Footprint:*** *14.0mm x 12.8mm Max*
- ***Current Rating:*** *up to 55.0A*
- ***Inductance Range:*** *0.15uH to 47.0uH*
- *Shielded construction and compact design*
- *High current, low DCR, and high efficiency*
- *Minimized acoustic noise and minimized leakage flux*

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

Part Number	Inductance 100KHz, 1V	Rated Current	DC Resistance		Saturation Current Max.	Mechanical
			MAX.	TYP.		
	uH	A	mΩ	mΩ	A	
PA4343.151NLT	0.15±30%	55.0	0.60	0.49	118.0	Footprint 1
PA4343.221NLT	0.22±20%	53.0	0.60	0.47	112.0	Footprint 1
PA4343.301NLT	0.30±20%	48.0	0.72	0.60	72.0	Footprint 1
PA4343.331NLT	0.33±20%	46.0	0.8	0.65	68.0	Footprint 1
PA4343.361NLT	0.36±20%	45.0	0.9	0.7	66.0	Footprint 1
PA4343.401NLT	0.40±20%	44.0	1.0	0.7	64.0	Footprint 1
PA4343.451NLT	0.45±20%	42.0	1.2	0.9	63.0	Footprint 1
PA4343.471NLT	0.47±20%	41.0	1.2	0.9	63.0	Footprint 1
PA4343.501NLT	0.50±20%	40.0	1.25	0.92	60.0	Footprint 1
PA4343.561NLT	0.56±20%	37.0	1.2	1.05	58.0	Footprint 1
PA4343.681NLT	0.68±20%	35.0	1.5	1.25	55.0	Footprint 1
PA4343.821NLT	0.82±20%	33.0	1.9	1.5	50.0	Footprint 1
PA4343.102NLT	1.00±20%	30.0	2.3	1.7	48.0	Footprint 1
PA4343.142NLT	1.40±20%	27.0	2.6	2.1	46.0	Footprint 1
PA4343.152NLT	1.50±20%	27.0	3.0	2.5	45.0	Footprint 1
PA4343.182NLT	1.80±20%	27.0	4.0	3.6	40.0	Footprint 2
PA4343.222NLT	2.20±20%	22.0	4.2	3.8	37.0	Footprint 2
PA4343.272NLT	2.70±20%	20.0	5.5	4.3	32.0	Footprint 2
PA4343.332NLT	3.30±20%	18.0	6.8	5.7	30.0	Footprint 2

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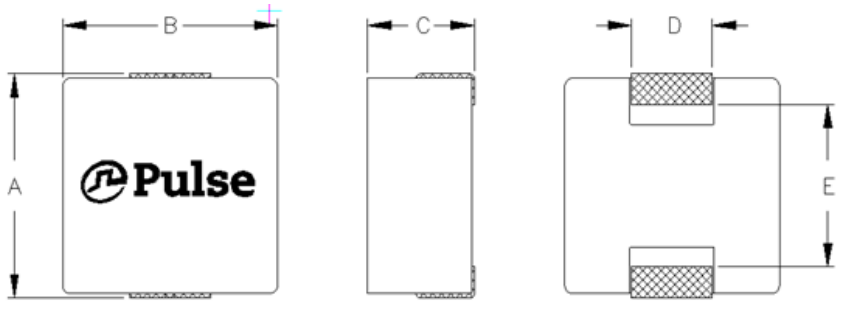
Part Number	Inductance 100KHz, 1V	Rated Current	DC Resistance		Saturation Current Max.	Mechanical
			MAX.	TYP.		
	uH	A	mΩ	mΩ	A	
PA4343.472NLT	4.70±20%	13.5	8.4	7.0	28.0	Footprint 2
PA4343.562NLT	5.60±20%	12.5	10.0	8.5	23.0	Footprint 2
PA4343.682NLT	6.80±20%	11.5	11.5	9.5	18.0	Footprint 2
PA4343.822NLT	8.20±20%	10.5	15.5	12.0	15.5	Footprint 2
PA4343.103NLT	10.0±20%	10.0	16.5	13.2	15.5	Footprint 2
PA4343.133NLT	13.0±20%	9.0	24.0	21.0	13.0	Footprint 2
PA4343.153NLT	15.0±20%	9.0	28.0	23.2	12.5	Footprint 2
PA4343.223NLT	22.0±20%	9.0	37.0	32.5	12.0	Footprint 2
PA4343.333NLT	33.0±20%	8.0	58.0	48.0	11.0	Footprint 2
PA4343.473NLT	47.0±20%	6.5	90.0	76.0	9.5	Footprint 2

Notes:

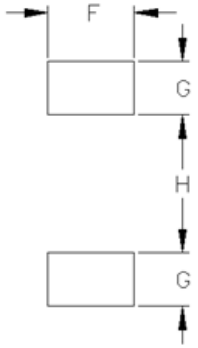
1. Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
2. The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effect) to the component.
3. 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 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

PA4343.XXXNLT



Final Layout



SUGGESTED PAD LAYOUT

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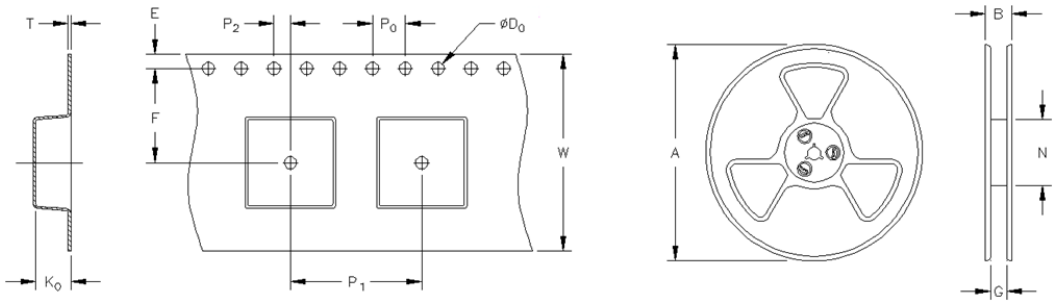
Series	Mechanical	A	B	C	D	E	F	G	H
PA4343.XXXNLT	Footprint 1	14.0 Max	12.8 Max	6.5 Max	(4.0)	(8.9)	(4.3)	(3.1)	(8.0)
PA4343.XXXNLT	Footprint 2	14.0 Max	12.8 Max	6.5 Max	(4.7)	(8.9)	(5.0)	(3.1)	(8.0)

All Dimensions in mm.

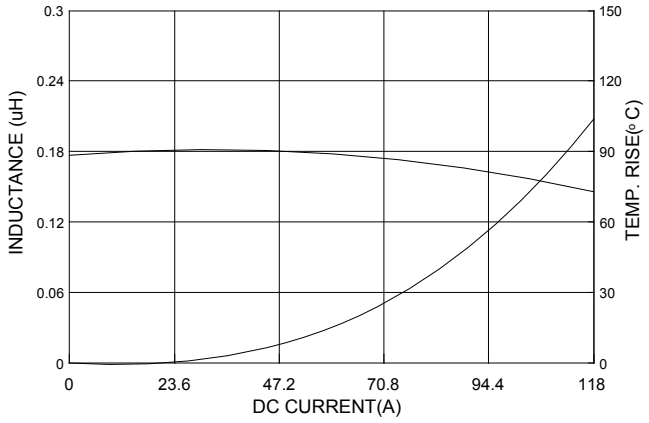
TAPE & REEL INFO



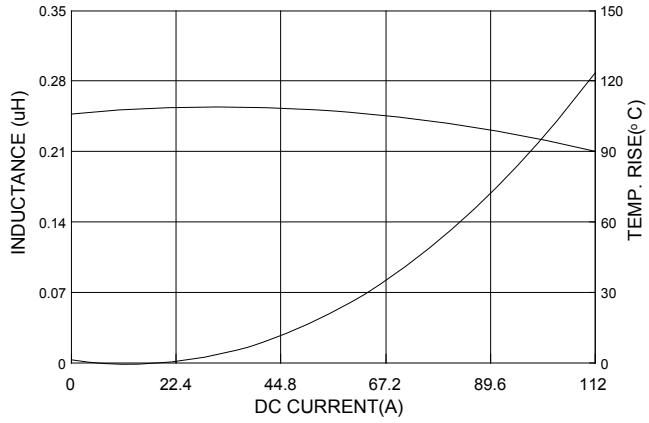
SURFACE MOUNTING TYPE, REEL/TAPE LIST														
	REEL SIZE (mm)				TAPE SIZE (mm)									QTY
	A	B	G	N	E	F	D_0	P_1	P_0	P_2	W	T	K_0	PCS/REEL
PA4343.XXXNLT	Ø330	N/A	24	100	1.75	11.5	1.5	16	4	2	24	0.35	7.0	500

Typical Performance Curves

PA4343.151NLT



PA4343.221NLT



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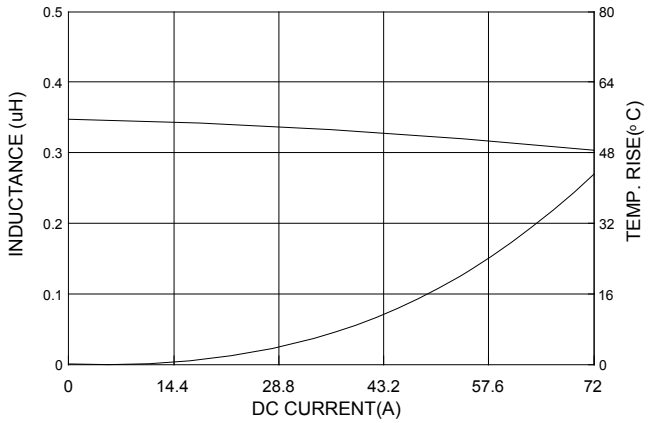
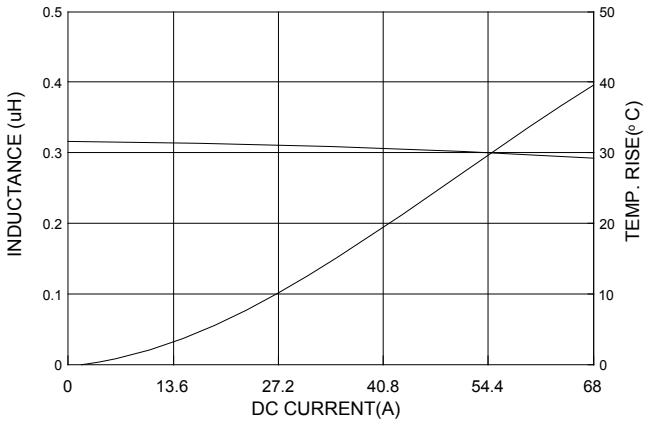
PA4343.301NLT



PA4343.331NLT



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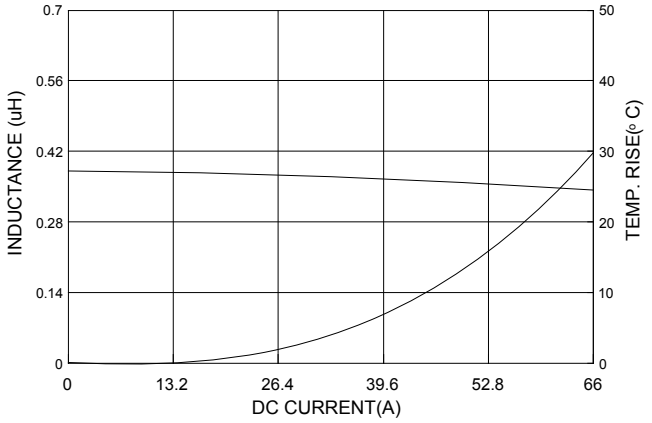
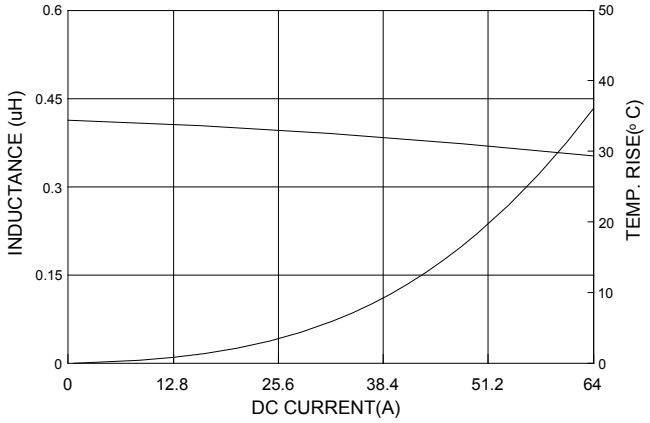


PA4343.401NLT



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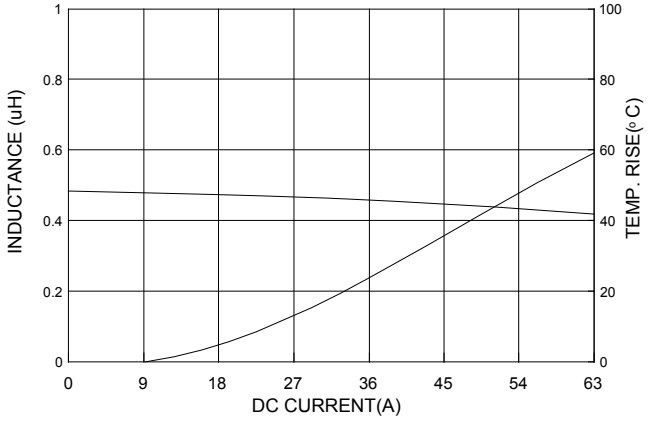
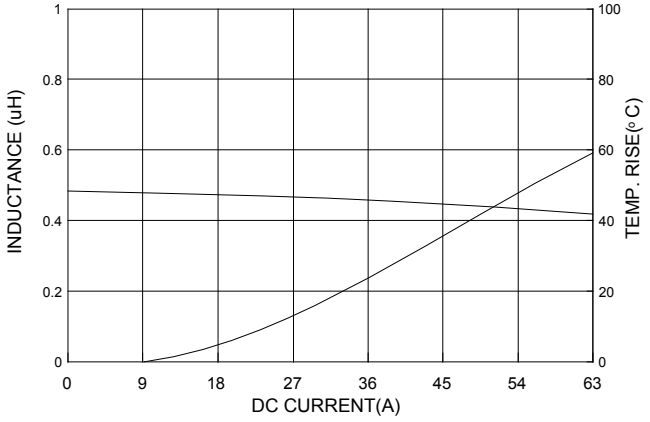


PA4343.501NLT



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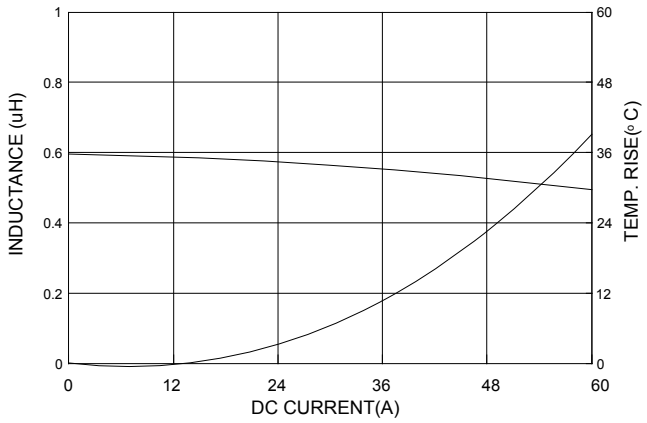
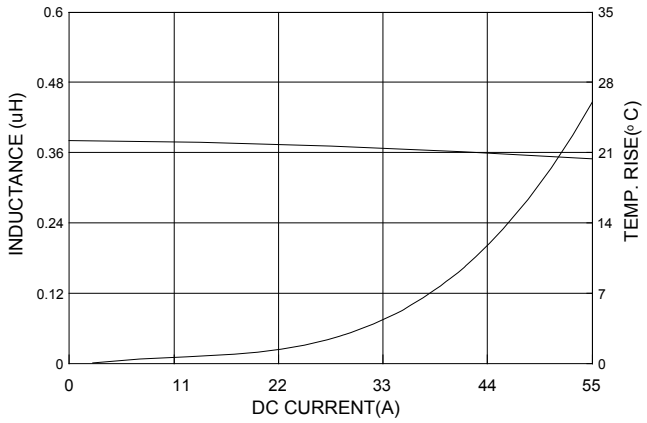
PA4343.561NLT



PA4343.681NLT



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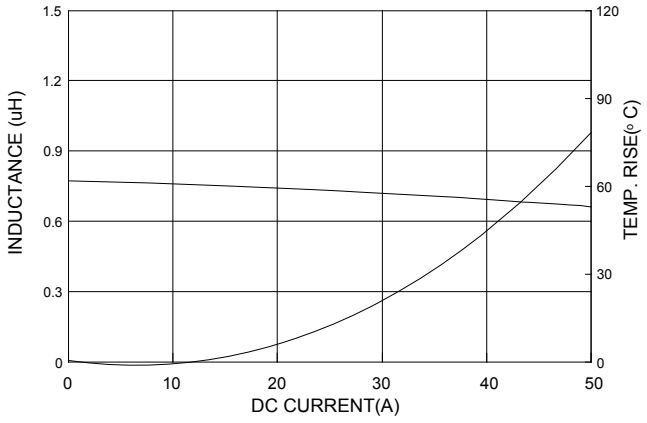
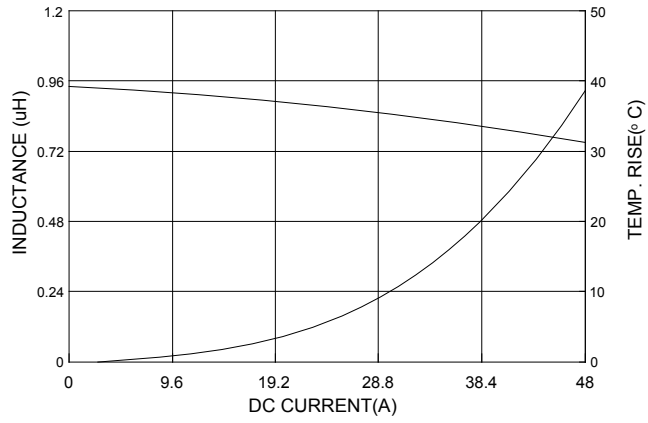


PA4343.102NLT



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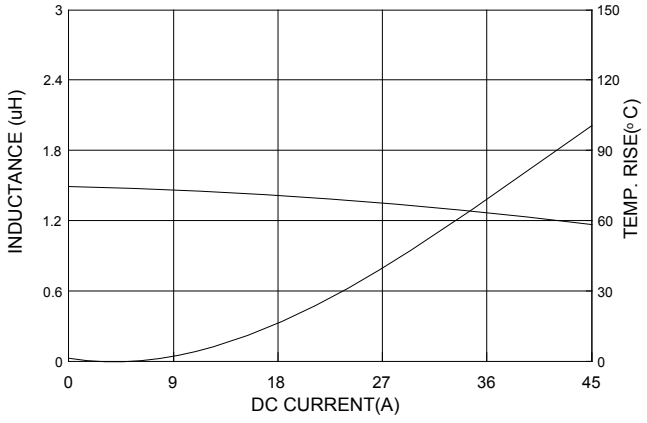

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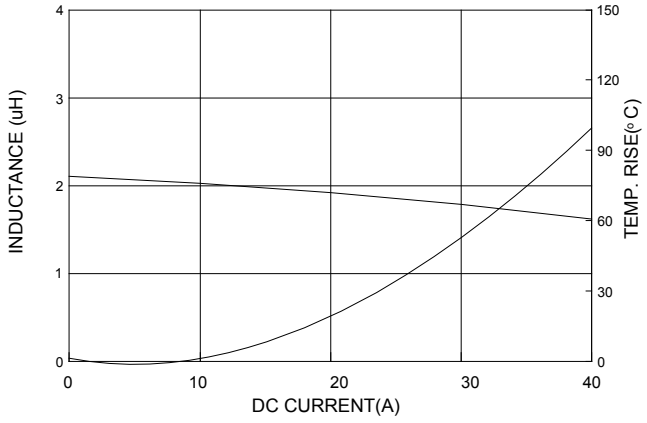

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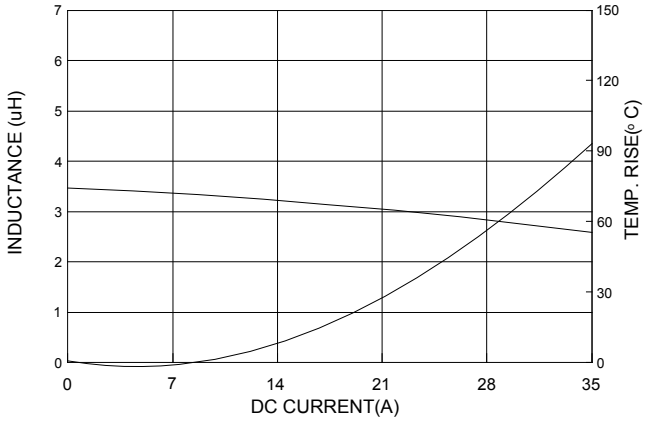
PA4343.332NLT



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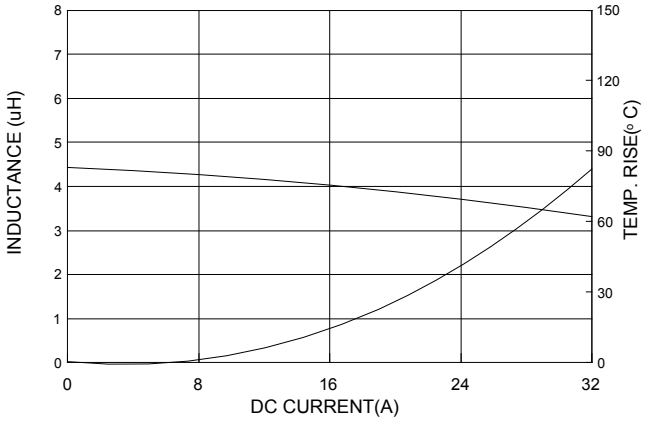
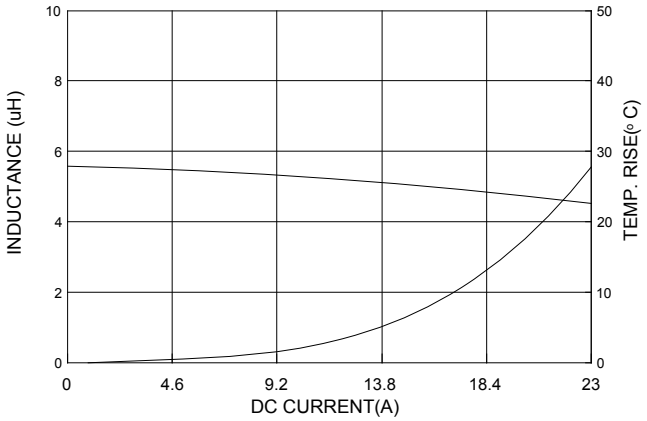
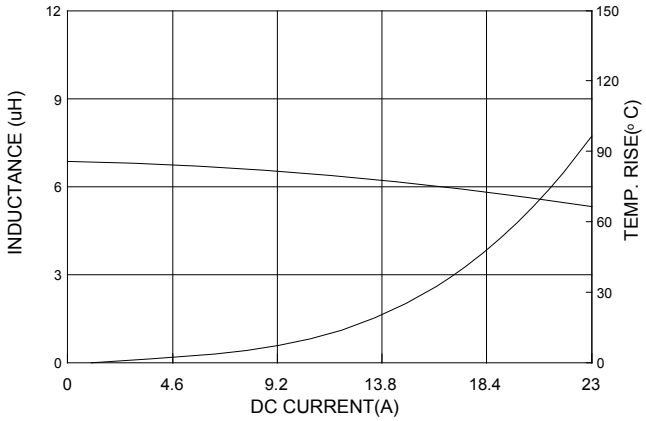


PA4343.562NLT



PA4343.682NLT



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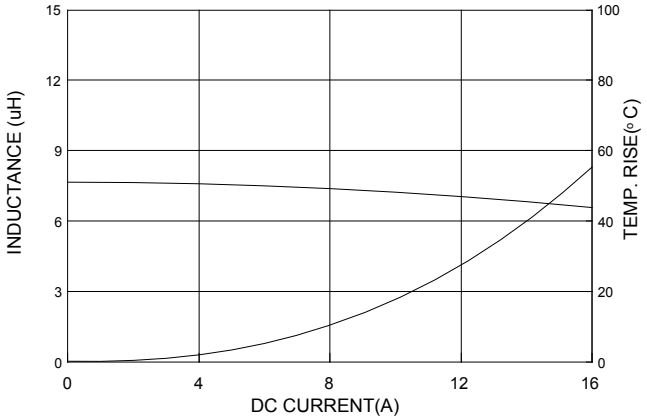

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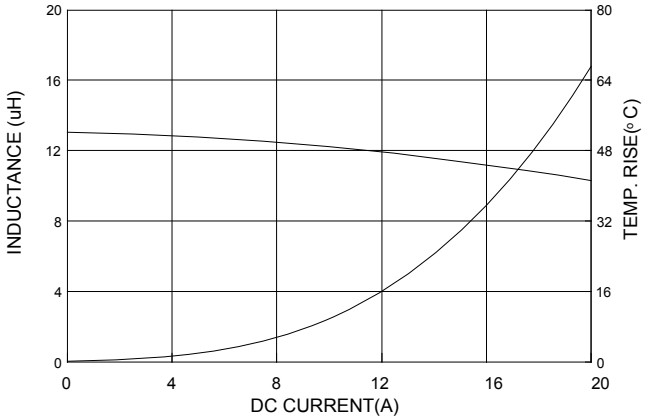

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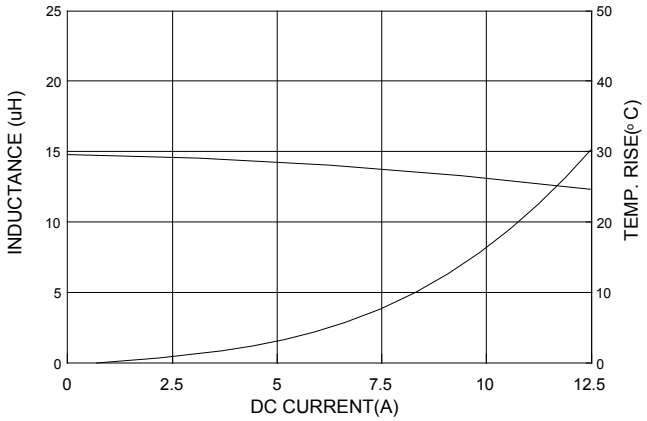
PA4343.153NLT



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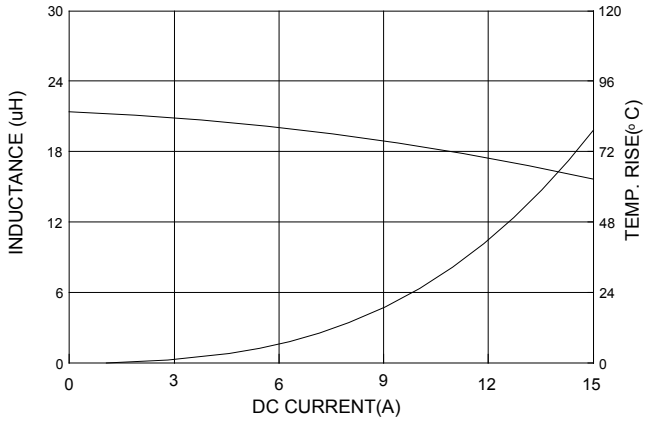

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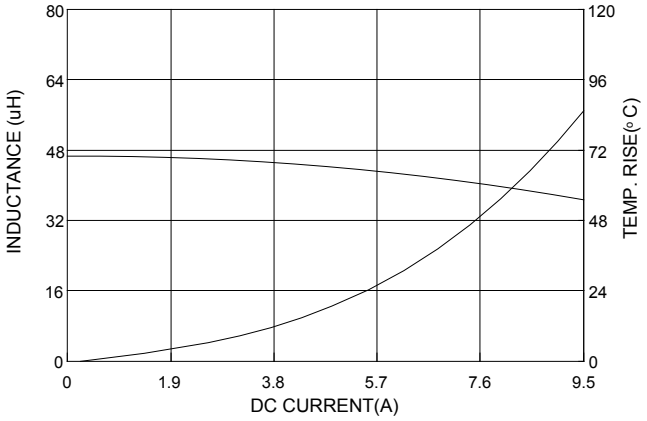

For More Information

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA 92128
U.S.A.

Tel: 858 674 8100
Fax: 858 674 8262

Pulse Europe
Pulse Electronics GmbH
Am Rottland 12
58540 Meinerzhagen
Germany

Tel: 49 2354 777 100
Fax: 49 2354 777 168

Pulse China Headquarters
B402, Shenzhen Academy of
Aerospace Technology Bldg.
10th Kejinan Road
High-Tech Zone
Nanshan District
Shenzhen, PR China 518057
Tel: 86 755 33966678
Fax: 86 755 33966700

Pulse North China
Room 2704/2705
Super Ocean Finance Ctr.
2067 Yan An Road West
Shanghai 200336
China

Tel: 86 21 62787060
Fax: 86 2162786973

Pulse South Asia
135 Joo Seng Road
#03-02
PM Industrial Bldg.
Singapore 368363

Tel: 65 6287 8998
Fax: 65 6287 8998

Pulse North Asia
3F, No. 198
Zhongyuan Road
Zhongli City
Taoyuan County 320
Taiwan R. O. C.
Tel: 886 3 4356768
Fax: 886 3 4356823 (Pulse)
Fax: 886 3 4356820 (FRE)

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Mouser Electronics

Authorized Distributor

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