

PA4547.102NLT Datasheet

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DiGi Electronics Part Number	PA4547.102NLT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PA4547.102NLT
Description	FIXED IND 1UH 3.6A 50 MOHM SMD
Detailed Description	1 μ H Unshielded Molded Inductor 3.6 A 50mOhm Max Nonstandard



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RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

PA4547.102NLT

Series:

PA4547.XXXNLT

Type:

Molded

Inductance:

1 μ H

Current Rating (Amps):

3.6 A

Shielding:

Unshielded

Q @ Freq:

-

Ratings:

-

Inductance Frequency - Test:

100 kHz

Mounting Type:

Surface Mount

Supplier Device Package:

-

Height - Seated (Max):

0.059" (1.50mm)

Manufacturer:

Pulse Electronics

Product Status:

Active

Material - Core:

-

Tolerance:

\pm 20%

Current - Saturation (Isat):

5.8A

DC Resistance (DCR):

50mOhm Max

Frequency - Self Resonant:

-

Operating Temperature:

-40°C ~ 125°C

Features:

-

Package / Case:

Nonstandard

Size / Dimension:

0.138" L x 0.126" W (3.50mm x 3.20mm)

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8504.50.8000

Moisture Sensitivity Level (MSL):

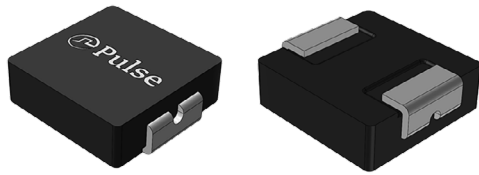
1 (Unlimited)

ECCN:

EAR99

SMT Power Inductor

High Current Molded Power Inductor - PA4547 & PM4547 Series



- Ⓢ **Height:** 1.5mm Max
- Ⓢ **Footprint:** 3.8mm x 3.4mm Max
- Ⓢ **Current Rating:** up to 7.0A
- Ⓢ **Inductance Range:** 0.22uH to 10.0uH
- Ⓢ High current, low DCR, and high efficiency
- Ⓢ High reliability
- Ⓢ Minimized acoustic noise and minimized leakage flux noise
- Ⓢ 200Vdc Isolation between terminal and core

Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C

Commercial ^{5,6}	Automotive ^{5,6}	Inductance ⁵ 100KHz, 1.0V uH±20%	Rated ⁵ Current A	DC Resistance		Saturation ² Current A	K Factor for CoreLoss
				TYP.	MAX.		
				mΩ	mΩ		
PA4547.221NLT	PM4547.221NLT	0.22	7.00	14	17	10.8	1343.6
PA4547.471NLT	PM4547.471NLT	0.47	5.50	23.3	28	8.0	903.7
PA4547.561NLT	PM4547.561NLT	0.56	5.00	28	33	7.2	723.5
PA4547.681NLT	PM4547.681NLT	0.68	4.50	34	42	6.5	627.0
PA4547.102NLT	PM4547.102NLT	1.00	3.60	41	50	5.8	616.4
PA4547.152NLT	PM4547.152NLT	1.50	3.40	64	77	4.0	558.9
PA4547.222NLT	PM4547.222NLT	2.20	3.20	82	98	3.8	405.1
PA4547.332NLT	PM4547.332NLT	3.30	2.50	170	205	3.2	268.7
PA4547.472NLT	PM4547.472NLT	4.70	1.90	220	264	2.8	168.4
PA4547.562NLT	PM4547.562NLT	5.60	1.70	265	318	2.3	209.0
PA4547.682NLT	PM4547.682NLT	6.80	1.50	290	348	2.0	221.6
PA4547.822NLT	PM4547.822NLT	8.20	1.30	390	468	1.8	177.6
PA4547.103NLT	PM4547.103NLT	10.00	1.20	435	522	1.6	204.0

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 of all parts are +/-20% except those indicated with a * which are +/-30%.
- Parts shown in bold are standard catalog parts and are available through sample stock and distribution. Parts in lighter font are available but are not necessarily held in sample stock or distribution and lead times may be longer. Please contact Pulse for availability.
- Both the PA and PM part numbers are AEC-Q200 qualified parts. The PM part numbers have full automotive IATF16949 certification. The PM part number dimensions are 100% tested in production but do not necessarily meet a product capability index (Cpk)> 1.33 and therefore may not strictly conform to PPAP.
- Special characteristics Ⓢ

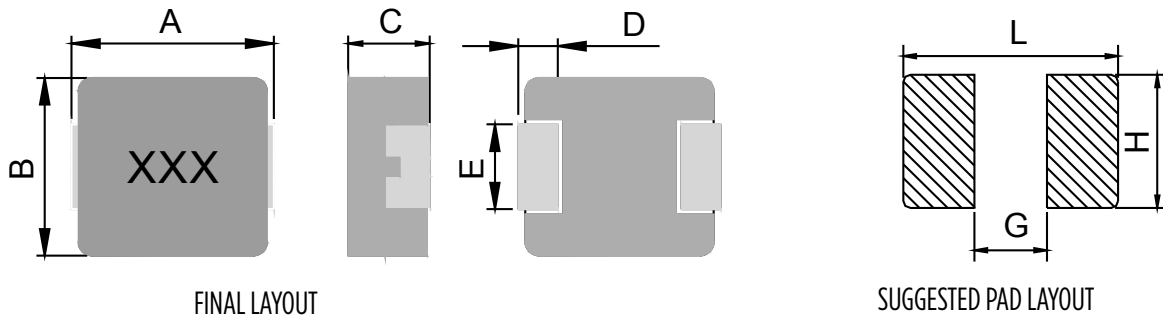
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High Current Molded Power Inductor - PA4547 & PM4547 Series



Mechanical

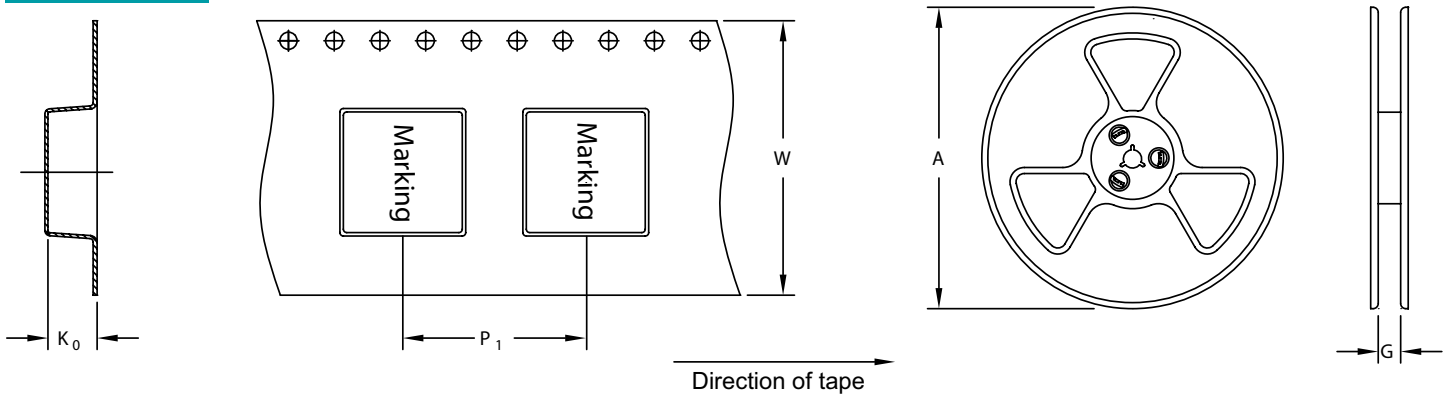
PA4547/PM4547



Series	A	B	C	D	E	L	G	H
PA4547/PM4547	3.5±0.3	3.2±0.2	1.3±0.2	0.7±0.2	1.2±0.2	4.1	1.9	1.45

All Dimensions in mm.

TAPE & REEL INFO



	SURFACE MOUNTING TYPE, REEL/TAPE LIST					
	REEL SIZE (mm)		TAPE SIZE (mm)			QTY
	A	G	P ₁	W	K ₀	PCS/REEL
PA4547/PM4547	Ø330	12.4	8	12	1.8	3000

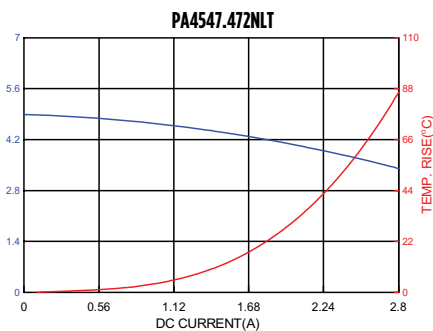
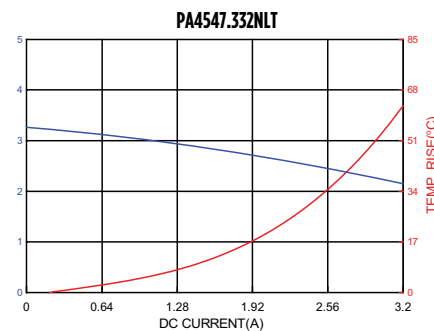
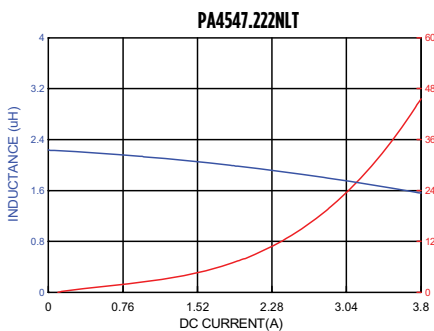
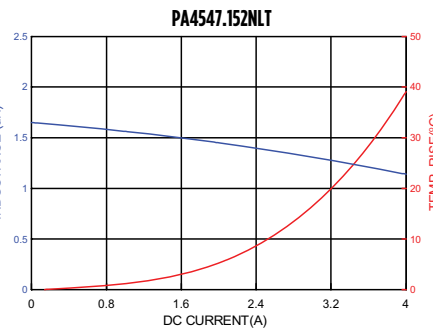
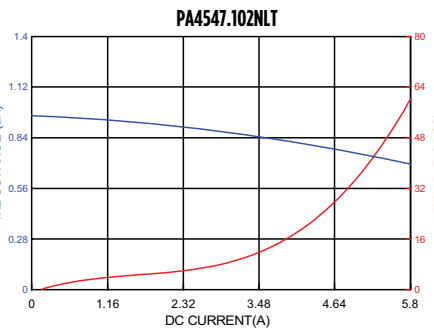
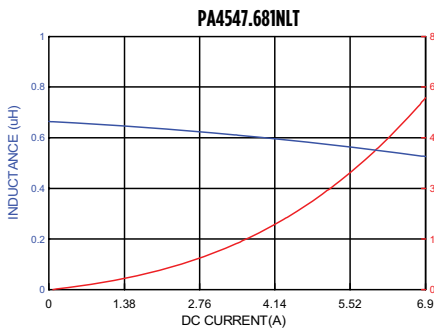
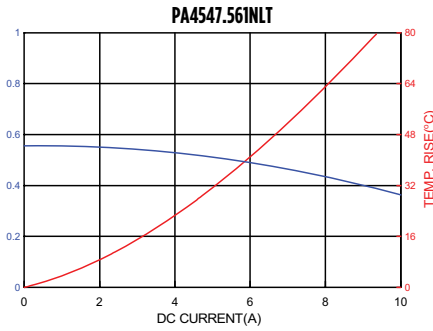
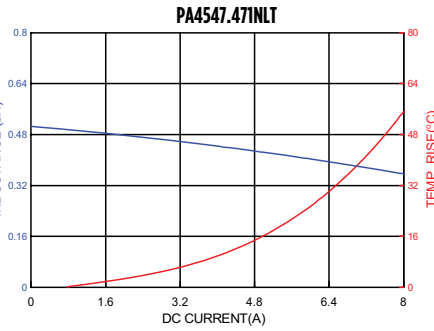
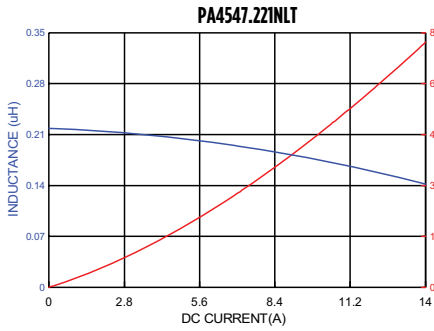
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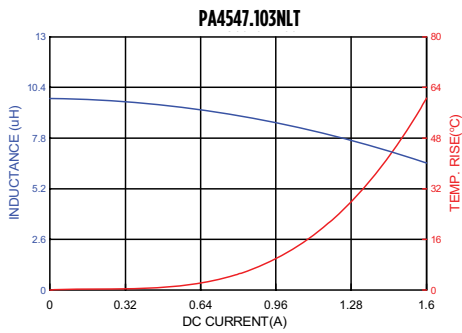
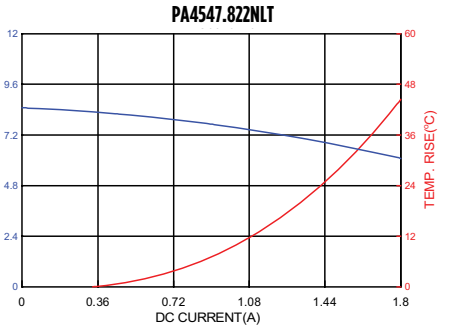
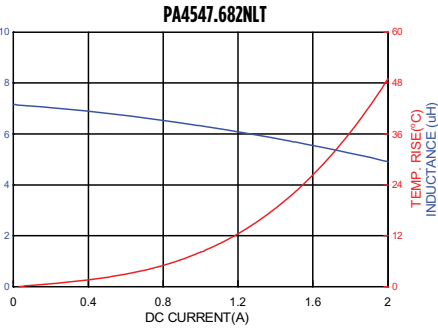
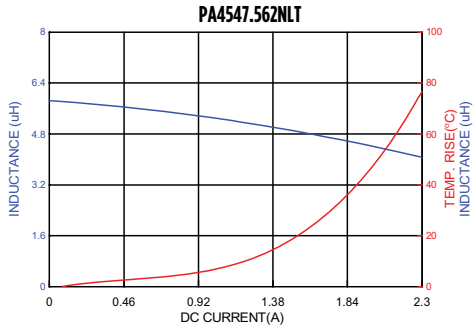
Typical Performance Curves

PA4547.XXXNLT



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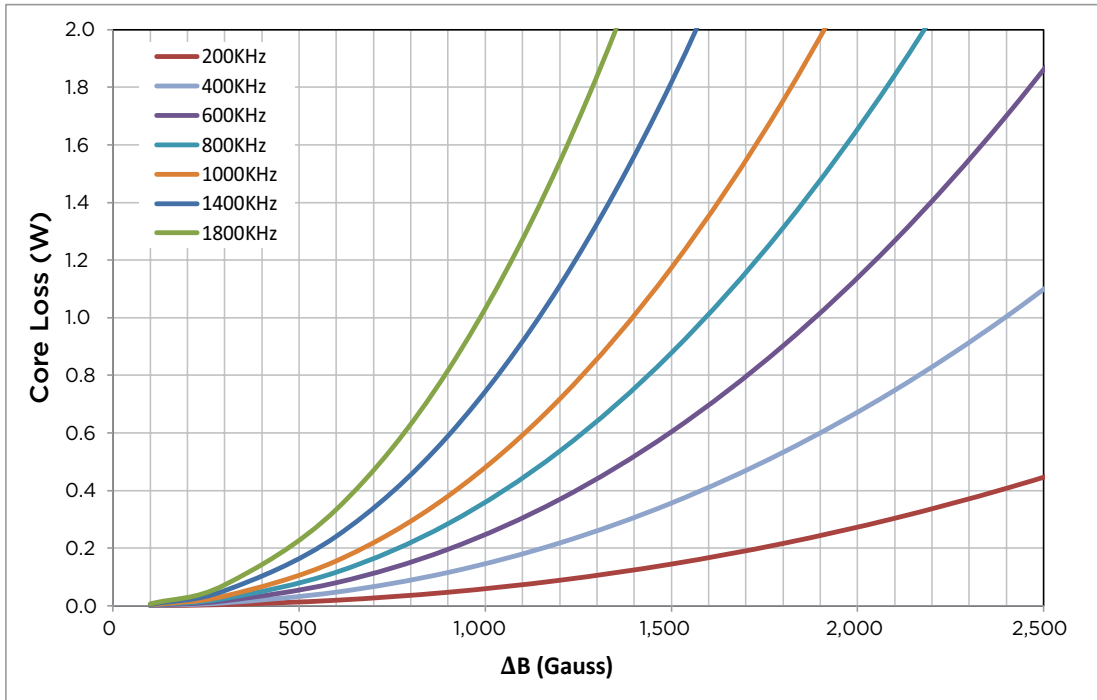
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Core Loss versus Flux Density



$$\Delta B = K * L(\mu H) * \Delta I(A)$$

For More Information:

Americas - prodinfo_power@pulseelectronics.com | Europe - power-apps-europe@pulseelectronics.com | Asia - power-apps-asia@pulseelectronics.com

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