

PA4548.331NLT Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number PA4548.331NLT-DG

Manufacturer Pulse Electronics

Manufacturer Product Number PA4548.331NLT

Description FIXED IND 330NH 15A 4.4 MOHM SMD

Detailed Description 330 nH Unshielded Molded Inductor 15 A 4.4mOhm

Max Nonstandard



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.



Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
PA4548.331NLT	Pulse Electronics
Series:	Product Status:
PA4548.XXXNLT	Active
Type:	Material - Core:
Molded	
Inductance:	Tolerance:
330 nH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
15 A	28A
Shielding:	DC Resistance (DCR):
Unshielded	4.4mOhm Max
Q @ Freq:	Frequency - Self Resonant:
Ratings:	Operating Temperature:
	-40°C ~ 125°C
Inductance Frequency - Test:	Features:
100 kHz	
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
	0.276" L x 0.260" W (7.00mm x 6.60mm)
Height - Seated (Max):	
0.094" (2.40mm)	

Environmental & Export classification

8504.50.8000

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	

High Current Molded Power Inductor - PA4548.XXXNLT Series

















Height: 2.4mm Max

Footprint: 7.3mm x 6.9mm Max

© Current Rating: up to 30A

Inductance Range: 0.10uH to 22.0uH

High current, low DCR, and high efficiency

High reliability

@ Minimized acoustic noise and minimized leakage flux noise

200 Vdc Isolation Between Terminal and Core

	Electrical Specifications @ 25°C - Operating Temperature -55°C to +125°C							
		◯ Inductance⁵	Rated³ Current	DC Resistance		Saturation ² Current		
Commercial ^{6,7}	Automotive ^{6,7}	100KHz, 1.0V	TYP.	TYP.	MAX.	TYP.		
		uH±20%	A	mΩ	mΩ	A		
PA4548.101NLT	PM4548.101NLT	0.10*	30	1.4	1.7	70		
PA4548.151NLT	PM4548.151NLT	0.15*	30	1.8	2.3	45		
PA4548.201NLT	PA4548.201NLT	0.20	23	1.9	2.8	40		
PA4548.221NLT	PM4548.221NLT	0.22	21	2	3.2	34		
PA4548.331NLT	PM4548.331NLT	0.33	18	3.6	4.4	30		
PA4548.361NLT	PA4548.361NLT	0.36	17	3.8	4.6	29		
PA4548.471NLT	PM4548.471NLT	0.47	15	4.8	5.1	26		
PA4548.561NLT	PM4548.561NLT	0.56	13	5.5	6.5	24		
PA4548.601NLT	PA4548.601NLT	0.60	13	5.7	6.9	22		
PA4548.681NLT	PM4548.681NLT	0.68	13	6.4	7.2	21		
PA4548.821NLT	PM4548.821NLT	0.82	11	8	9.5	17		
PA4548.102NLT	PM4548.102NLT	1.0	11	10.5	13.5	16		
PA4548.152NLT	PM4548.152NLT	1.5	9	17	20	15		
PA4548.222NLT	PM4548.222NLT	2.2	7	23	28	14		
PA4548.332NLT	PM4548.332NLT	3.3	6	34	39	10		
PA4548.472NLT	PM4548.472NLT	4.7	5.5	41	50	9		
PA4548.562NLT	PM4548.562NLT	5.6	5	56	62	8		
PA4548.682NLT	PM4548.682NLT	6.8	4	65	72	7		
PA4548.822NLT	PM4548.822NLT	8.2	3.6	81	95	6		
PA4548.103NLT	PM4548.103NLT	10	3.2	92	101	5		
PA4548.153NLT	PM4548.153NLT	15	2.5	150	180	3.5		
PA4548.223NLT	PM4548.223NLT	22	1.8	185	215	3		

PulseElectronics.com P825.J (02/24)

High Current Molded Power Inductor - PA4548.XXXNLT Series



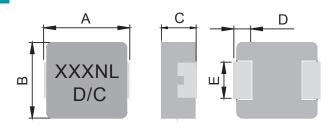
Notes:

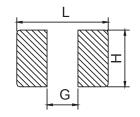
- Actual temperature of the component during system operation (ambient plus temperature rise) must be within the standard operating range.
- 2. The saturation current is the current at which the initial inductance drops approximately 30% at the stated ambient temperature. This current is determined by placing the compnent 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' 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.
- 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.
- 5. 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 availablity.
- 7. The PA4548.XXXNLT and PM4548.XXXNLT are both AEC-Q200 qualified. The PM4548. XXXNLT part numbers are also IATF16949 certified. The mechanical dimensions are 100% tested in production but do not necessarily meet a product capability index (Cpk) 1.33 and therefore the PM4548.XXXNLT may not strictly conform to PPAP.
- 8. Special Characteristics

Mechanical

PA4548/PM4548





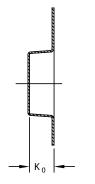
FINAL LAYOUT

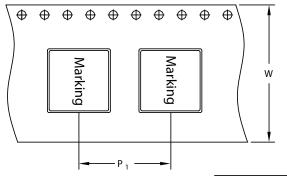
SUGGESTED PAD LAYOUT

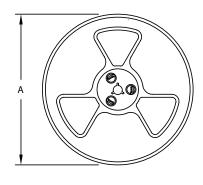
Series	A	В	C	D	E	L	G	Н
PA4548/PM4548	7.0±0.3	6.6±0.3	2.2±0.2	1.8±0.3	3.0±0.3	7.7	2.5	3.5

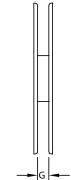
All Dimensions in mm.

TAPE & REEL INFO









Direction of tape

SURFACE MOUNTING TYPE, REEL/TAPE LIST							
	REEL SIZ	'E (mm)	T <i>A</i>	QTY			
	А	G	P ₁	W	$K_{_{0}}$	PCS/REEL	
PA4548/PM4548	Ø330	16.4	12	16	2.7	1500	

2 PulseElectronics.com P825.J (02/24)

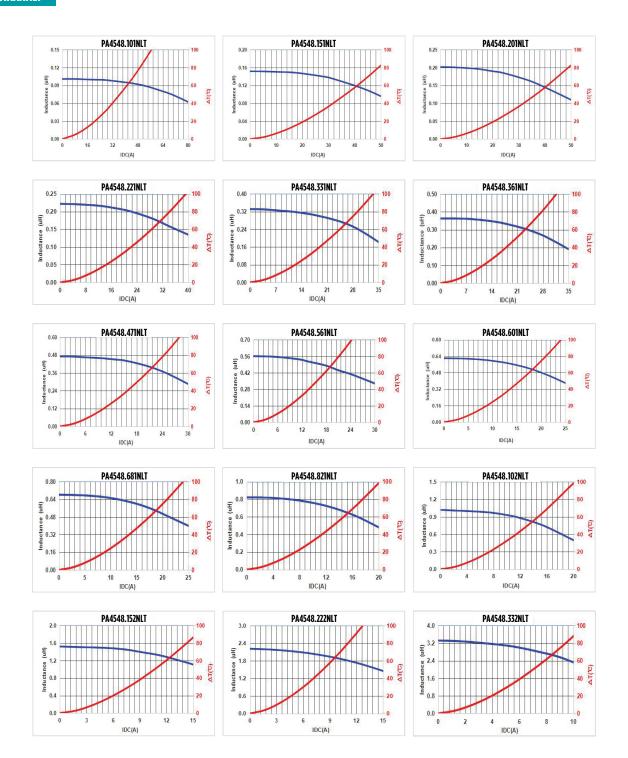
High Current Molded Power Inductor - PA4548.XXXNLT Series



Typical Performance Curves

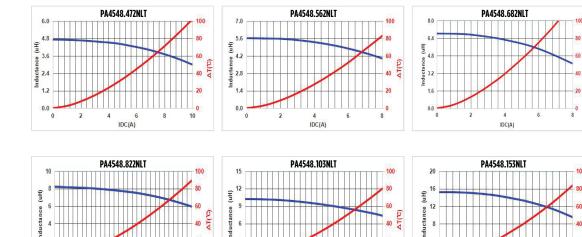
PA4548.XXXNLT

3

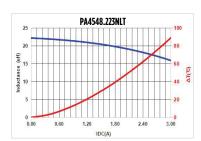


PulseElectronics.com P825.J (02/24)

High Current Molded Power Inductor - PA4548.XXXNLT Series



IDC(A)



For More Information:

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

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright, 2020. Pulse Electronics, Inc. All rights reserved.

Pulse

a YAGEO company

IDC(A)



OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we striciy control the quality of products and services. Welcome your RFQ to Email: Info@DiGi-Electronics.com

















Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com