PM5448.102NLT Datasheet

DiGi Electronics Part Number	PM5448.102NLT-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PM5448.102NLT
Description	FIXED IND 1UH 18A 6.8 MOHM SMD
Detailed Description	1 µH Shielded Molded Inductor 18 A 6.8mOhm Max Nonstandard

https://www.DiGi-Electronics.com

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Purchase and inquiry

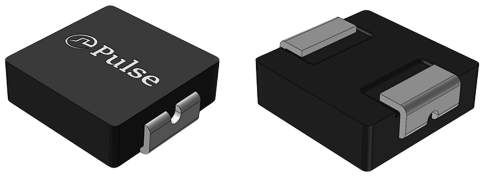
Manufacturer Product Number:	Manufacturer:
PM5448.102NLT	Pulse Electronics
Series:	Product Status:
PM5448.xxxNLT	Active
Type:	Material - Core:
Molded	-
Inductance:	Tolerance:
1 µH	±20%
Current Rating (Amps):	Current - Saturation (Isat):
18 A	16A
Shielding:	DC Resistance (DCR):
Shielded	6.8mOhm Max
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-55°C ~ 125°C
Inductance Frequency - Test:	Features:
100 kHz	-
Mounting Type:	Package / Case:
Surface Mount	Nonstandard
Supplier Device Package:	Size / Dimension:
-	0.346" L x 0.323" W (8.80mm x 8.20mm)
Height - Seated (Max):	
0.118" (3.00mm)	

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.4000	

SMT Power Inductors

Molded Power Inductor - PA5448.XXXNLT and PM5448.XXXNLT



- ***Height:*** *3.0mm Max*
- ***Footprint:*** *9.2mm x 8.5mm Max*
- ***Current Rating:*** *up to 30A*
- ***Inductance Range:*** *0.22uH to 15uH*
- *High current, low DCR, and high efficiency*
- *High reliability*
- *Minimized acoustic noise and minimized leakage flux noise*
- *Available in Commercial (PA5448) and automotive (PM5448) grades*

Electrical Specifications @ 25°C - Operating Temperature -per below

Part Number[6,7]		Inductance 100KHz, 1.0V	Rated[3] Current	DC Resistance		Saturation[2] Current
Commerical	Automotive		TYP.	TYP.	MAX.	TYP.
(-40°C to 125°C)	(-55°C to 155°C)	uH±20%	A	mΩ	mΩ	A
PA5448.221NLT	PM5448.221NLT	0.22	30.0	1.6	1.84	35
PA5448.331NLT	PM5448.331NLT	0.33	28.0	2.2	2.53	28
PA5448.471NLT	PM5448.471NLT	0.47	25.0	2.7	3.1	24
PA5448.681NLT	PM5448.681NLT	0.68	22.0	3.9	4.5	20
PA5448.821NLT	PM5448.821NLT	0.82	20.0	4.8	5.5	18
PA5448.102NLT	PM5448.102NLT	1.00	18.0	5.9	6.8	16
PA5448.152NLT	PM5448.152NLT	1.50	15.5	7.5	8.6	14.5
PA5448.222NLT	PM5448.222NLT	2.20	13.0	12.5	14.4	12
PA5448.332NLT	PM5448.332NLT	3.30	11.0	18.5	21.3	11.5
PA5448.472NLT	PM5448.472NLT	4.70	9.0	27	31	8
PA5448.562NLT	PM5448.562NLT	5.60	7.5	31	35.7	7.5
PA5448.682NLT	PM5448.682NLT	6.80	7.0	34	39.1	7
PA5448.822NLT	PM5448.822NLT	8.20	6.2	45	51.8	6.4
PA5448.103NLT	PM5448.103NLT	10.0	5.7	51	58.7	5.9
PA5448.153NLT	PM5448.153NLT	15.0	4.7	87	100	4.9

SMT Power Inductors

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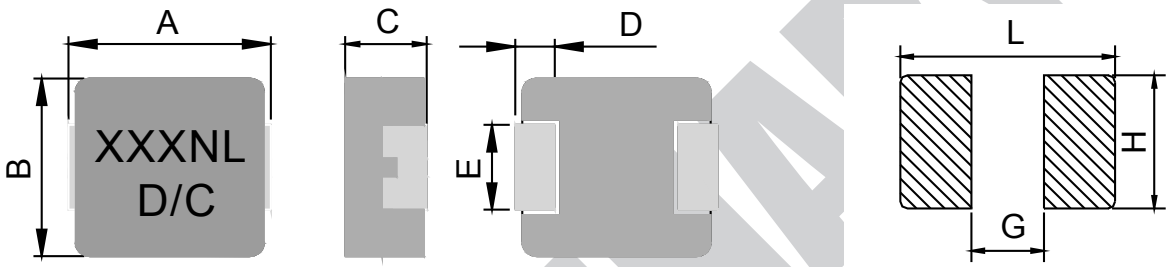
Notes:

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 by approximately 30% at the stated ambient temperature. The maximum allowable drop at this stated current is 40% of the initial inductance. 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 the maximum temperature 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. 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.
6. The PM5448.XXXNLT is AEC-Q200 qualified and has full automotive IATF16949 certification. The PM5448.XXXNLT mechanical 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.
7. Special Characteristics ▽

Mechanical

PA5448/PM5448



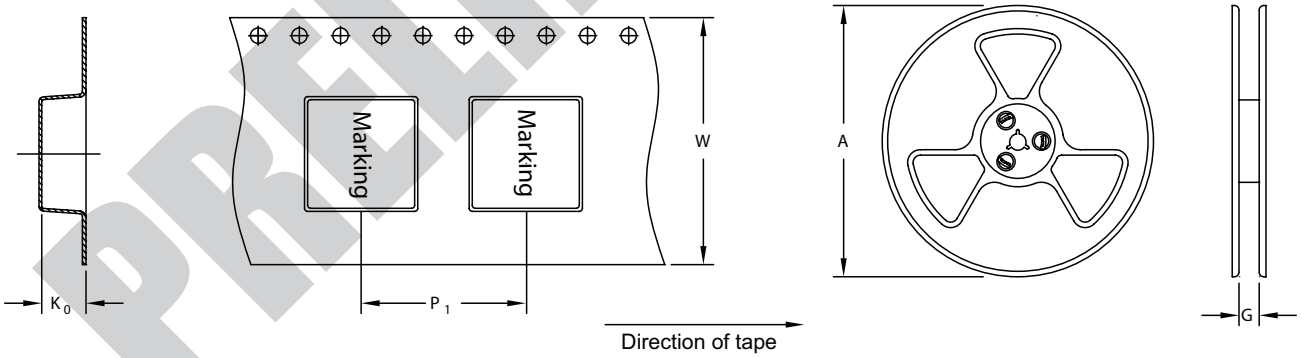
FINAL LAYOUT

SUGGESTED PAD LAYOUT

Series	A	B	C	D	E	L	G	H
PA5448/PM5448	8.8±0.4	8.2±0.3	2.8±0.2	1.4±0.3	5.0±0.3	9.5	4.0	5.5

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
PA5448/PM5448	Ø330	16.4	16	24	3.5	800

SMT Power Inductors

Molded Power Inductor - PA5448.XXXNLT and PM5448.XXXNLT

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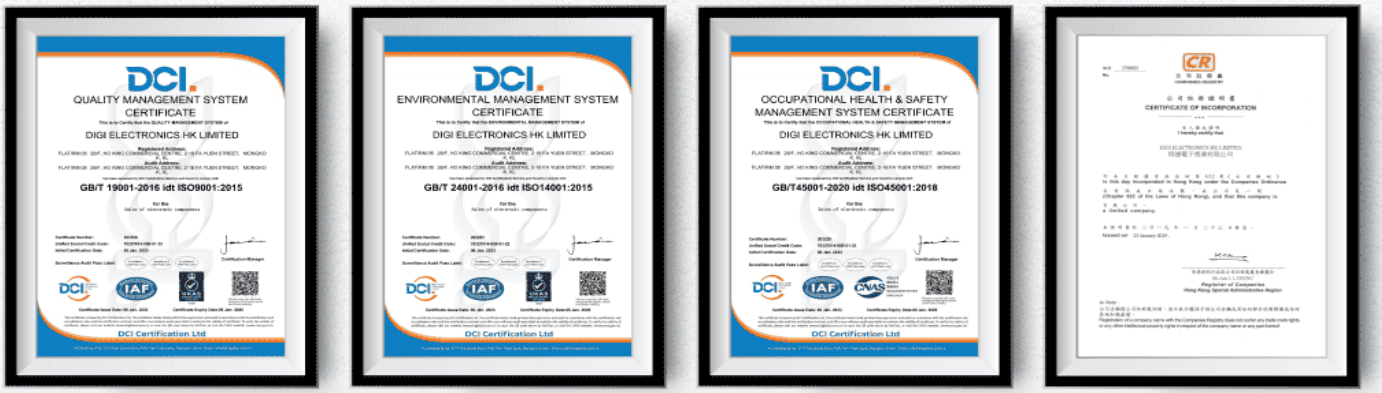

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DiGi is a global authorized distributor of electronic components.