PG0016.682NL Datasheet

DiGi Electronics Part Number	PG0016.682NL-DG
Manufacturer	Pulse Electronics
Manufacturer Product Number	PG0016.682NL
Description	FIXED IND 6.8UH 1.8A 55 MOHM SMD
Detailed Description	6.8 µH Unshielded Wirewound Inductor 1.8 A 55mOhm 2420 (6050 Metric)

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
PG0016.682NL	Pulse Electronics
Series:	Product Status:
PG0016NL	Active
Type:	Material - Core:
Wirewound	-
Inductance:	Tolerance:
6.8 µH	±15%
Current Rating (Amps):	Current - Saturation (Isat):
1.8 A	2.9A
Shielding:	DC Resistance (DCR):
Unshielded	55mOhm
Q @ Freq:	Frequency - Self Resonant:
-	-
Ratings:	Operating Temperature:
-	-40°C ~ 130°C
Features:	Mounting Type:
-	Surface Mount
Package / Case:	Supplier Device Package:
2420 (6050 Metric)	-
Size / Dimension:	Height - Seated (Max):
0.236" L x 0.213" W (6.00mm x 5.40mm)	0.191" (4.85mm)

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
ROHS3 Compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8504.50.8000	

SMT POWER INDUCTORS
Unshielded Drum Core – PG0016NL Series

Pulse
A TECHNITROL COMPANY

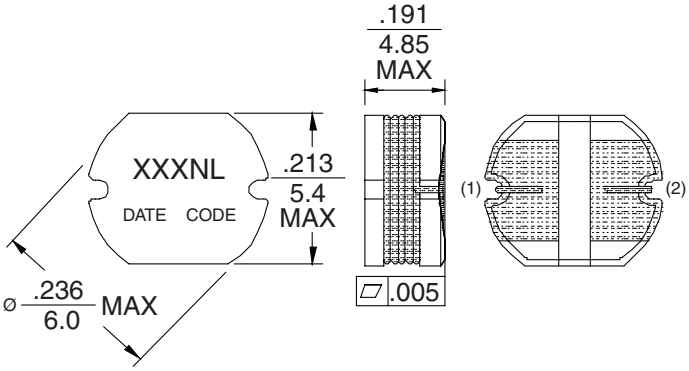
RoHS COMPLIANT

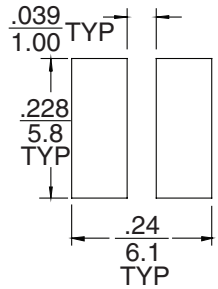
- **Current Rating:** up to 8.5A
- **Inductance Range:** 0.33µH to 220µH
- **Height:** 4.85 mm Max
- **Footprint:** 6.0mm x 5.4mm MAX

Electrical Specifications @ 25°C — Operating Temperature -40°C to +130°C [6]

Part[5] Number	Inductance @Irated [1] (µH TYP)	Irated [2] (A)	DCR (mΩ)	Inductance @ 0Adc (µH ± 15%)	Saturation Current [3] Isat (A TYP)	Heating Current [4] Idc (A TYP)
PG0016.331NL	0.29	8.5	4.3	0.33	13	8.5
PG0016.561NL	0.48	6.6	6.5	0.56	10	6.6
PG0016.681NL	0.68	6.0	7.0	0.68	8.0	6.0
PG0016.821NL	0.71	6.0	11	0.82	7.8	6.0
PG0016.102NL	1.0	4.5	13	1.0	6.8	4.5
PG0016.152NL	1.3	4.0	16	1.5	6.1	4.0
PG0016.222NL	2.1	3.2	23	2.2	5.0	3.2
PG0016.272NL	2.7	2.9	25	2.7	4.2	2.9
PG0016.332NL	3.1	2.6	30	3.3	4.0	2.6
PG0016.472NL	4.2	2.3	34	4.7	3.3	2.3
PG0016.682NL	6.1	1.8	55	6.8	2.9	1.8
PG0016.822NL	7.4	1.7	60	8.2	2.6	1.7
PG0016.103NL	10	1.5	80	10	2.3	1.5
PG0016.123NL	12	1.4	120	12	2.1	1.4
PG0016.153NL	14	1.3	140	15	1.8	1.3
PG0016.183NL	18	1.2	150	18	1.6	1.2
PG0016.223NL	21	1.1	180	22	1.6	1.1
PG0016.273NL	27	0.97	200	27	1.4	0.97
PG0016.333NL	33	0.88	230	33	1.3	0.88
PG0016.393NL	39	0.80	320	39	1.1	0.80
PG0016.473NL	46	0.72	370	47	1.0	0.72
PG0016.563NL	56	0.68	420	56	0.95	0.68
PG0016.683NL	68	0.61	530	68	0.80	0.61
PG0016.823NL	82	0.58	600	82	0.70	0.58
PG0016.104NL	100	0.52	840	100	0.70	0.52
PG0016.124NL	120	0.48	930	120	0.60	0.48
PG0016.154NL	150	0.40	1250	150	0.55	0.40
PG0016.184NL	180	0.38	1400	180	0.50	0.38
PG0016.224NL	217	0.35	1600	220	0.50	0.35

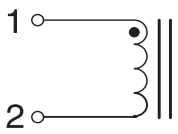
Mechanical





SUGGESTED PCB LAYOUT

Schematic



Weight . . . . . .0.46 grams
Tape & Reel 1400pcs/reel

Dimensions: Inches / mm

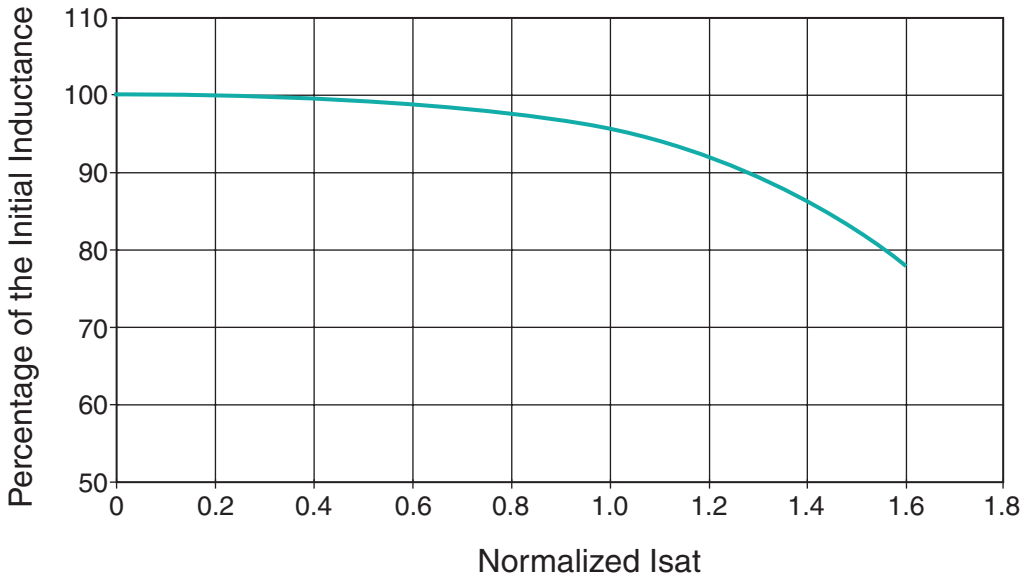
Unless otherwise specified, all tolerances are ± .004 / 0,10

SMT POWER INDUCTORS
Unshielded Drum Core – PG0016NL Series

NOTES:

1. Inductance at Irated is a typical inductance value for the component taken at rated current.
2. The rated current listed is the lower of the saturation current @ 25°C or the heating current.
3. The saturation current, Isat, is the current at which the component inductance drops by 10% (typ.) at an ambient temperature of 25°C. This current is determined by placing the component in the specified ambient environment and applying a short duration pulse current (to eliminate self-heating effects) to the component.
4. The heating current, IDC, is the DC current reqired to raise the component temperature by approximately 40°C. The heating current is determined by mounting the component on a typical PCB and applying current for 30 minutes.
5. Optional Tape & Reel packaging can be ordered by adding a “T” suffix to the part number (i.e. PG0016.331NL becomes PG0016.331NLT). Pulse complies to industry standard tape and reel specification EIA481.
6. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.

Typical Inductance vs. Current Characteristics



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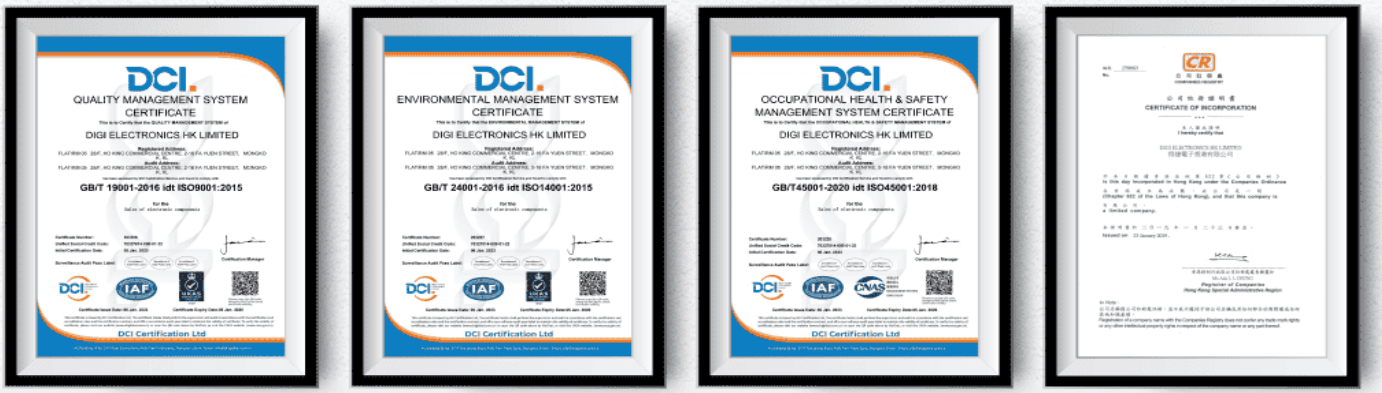

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