

Extreme Low Profile Power Inductors



AXLPI-1605 Series

Request Samples



Check Inventory



1.6 x 0.9 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Features

- Semi-shielded magnetics, low radiation
- High Power Density
- Extreme Low Profile of 0.5mm Max
- Very small package for medium current applications.
- High Inductance /mm³
- High self-resonant Frequency

Applications

- Smartphones
- Wearable exercise monitors
- Textile Applications
- Diagnostics patches
- Hearing Aids
- Glasses, Cameras
- Highly dense power circuitry

Electrical Specifications

Part Number	Inductance	DCR	SRF	Rated DC Current Max.	
	(μ H)	(Ω) Max	(MHz) Typ	Irms (mA)	Isat (mA)
AXLPI-1605-100M	10	5.0	40	100	150

Isat: Based on Inductance change($\Delta L/L_0 \leq 30\%$)

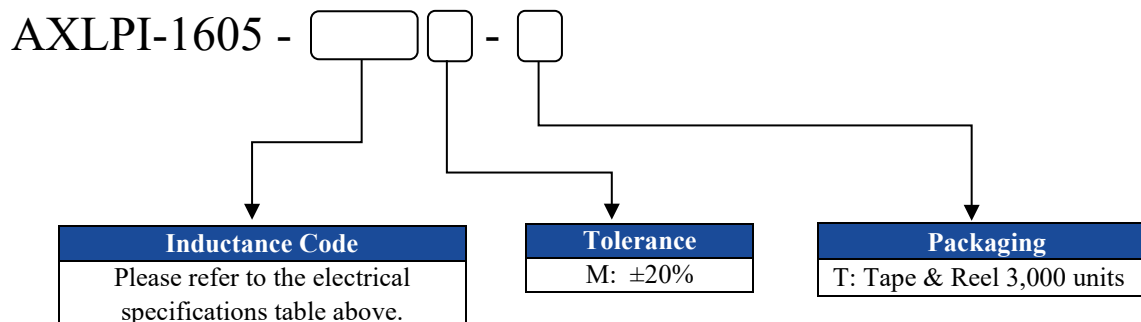
Irms : Based on Temperature change ($T = \Delta 40^\circ\text{C}$)

Test Freq.: 1MHz, 0.1V

Operating Temperature: $-40^\circ\text{C} \sim +125^\circ\text{C}$ (including self-heating)

Storage Temperature: $-40^\circ\text{C} \sim +125^\circ\text{C}$ (mounted on PCB)

Part Identification



Extreme Low Profile Power Inductors



AXLPI-1605 Series

Request Samples

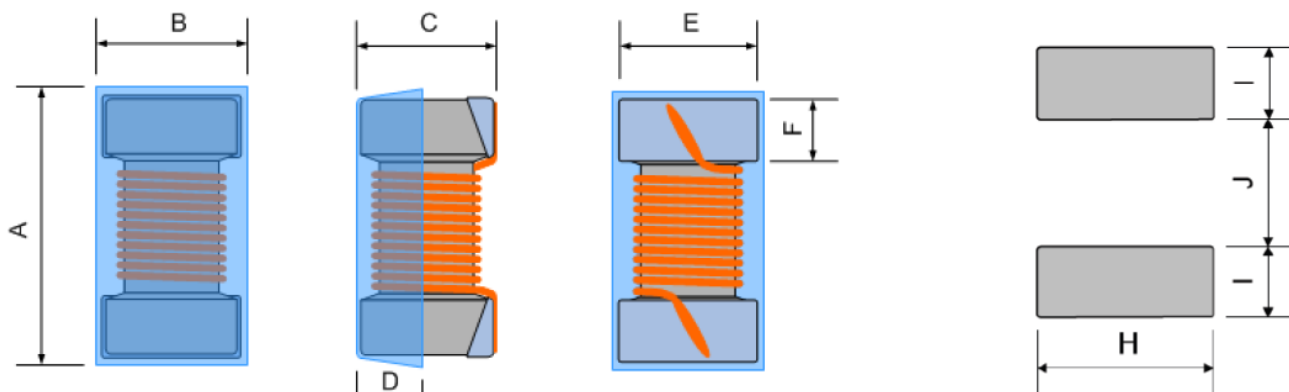


Check Inventory



1.6 x 0.9 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Specifications

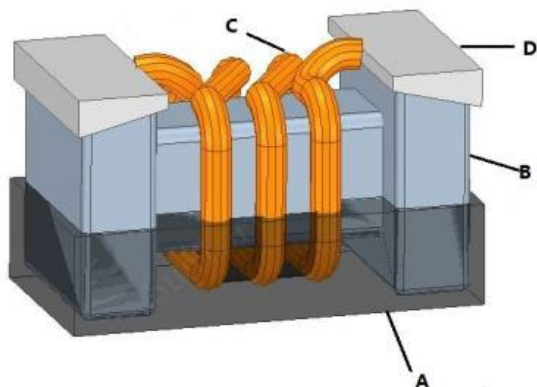


Recommend Pad Layout

A	B	C	D(typ)	E(ref)	F(ref)	H(ref)	I(ref)	J(ref)
1.60 ±0.20	0.90 ±0.20	0.50 MAX	0.16	0.85	0.30	1.10	0.64	0.64

Dimensions: mm

Materials List



Ref	Component	Material
A	Coating	Magnetic Resin
B	Core	Ferrite
C	Wire	Polyurethane enameled copper wire
D	Electrodes	Ag/Ag-Pd with Ni and Sn plating

Extreme Low Profile Power Inductors



AXLPI-1605 Series

Request Samples



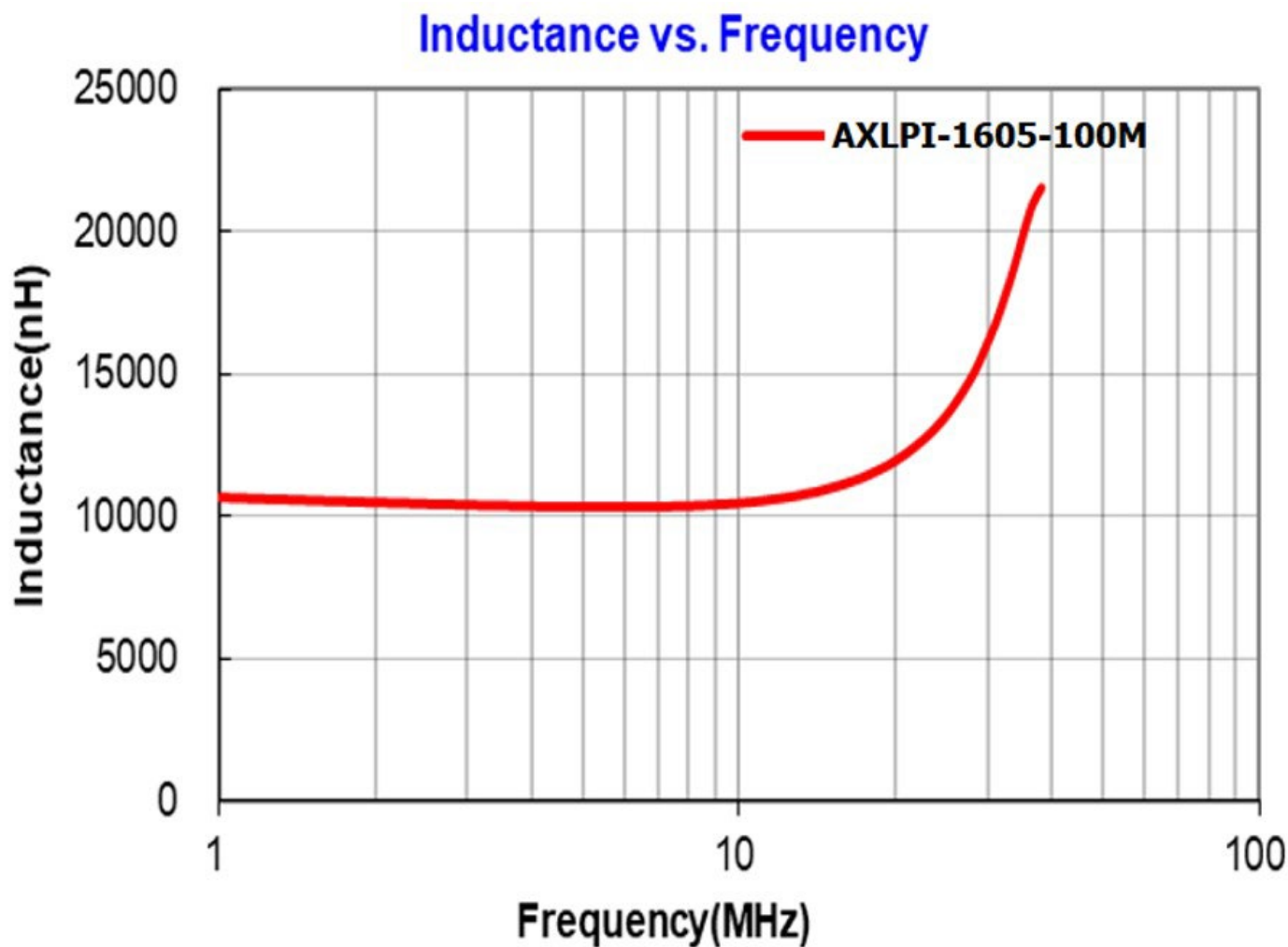
Check Inventory



1.6 x 0.9 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Performance Graphs

AXLPI-1605-100 Inductance vs. Frequency



Extreme Low Profile Power Inductors



AXLPI-1605 Series

Request Samples

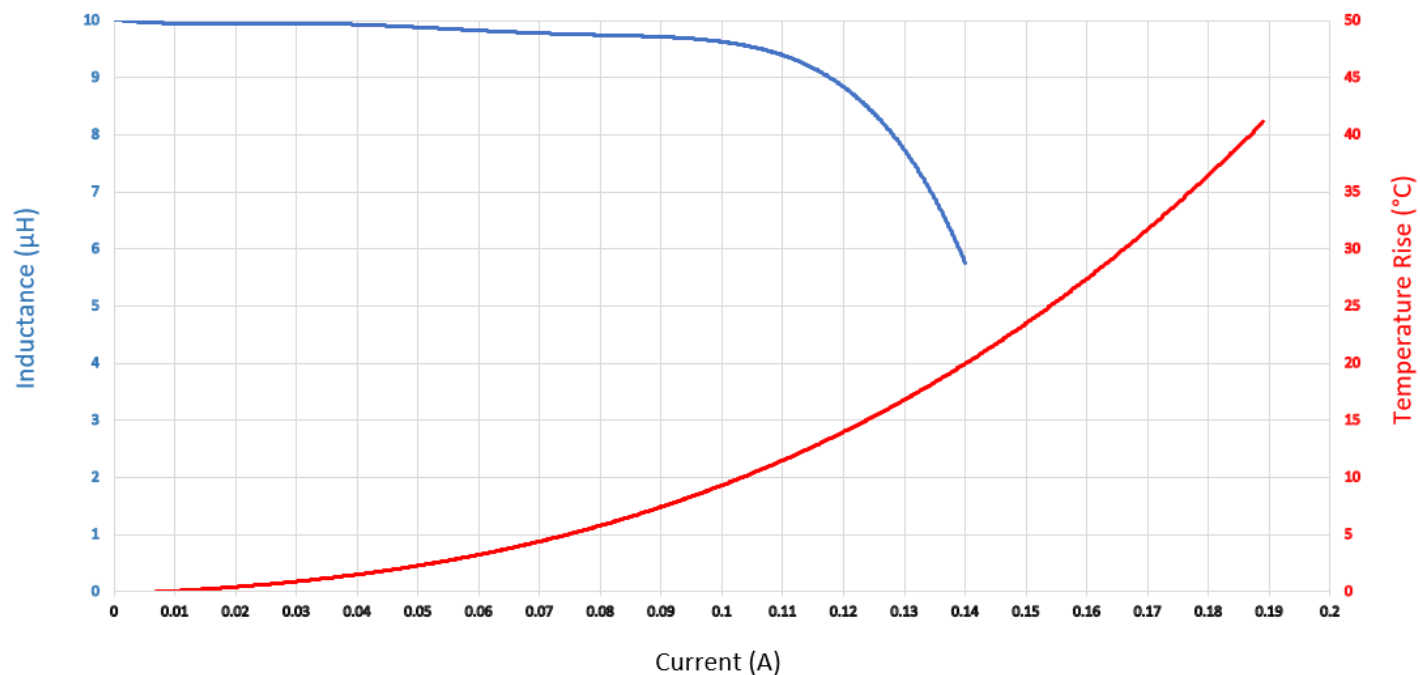


Check Inventory



1.6 x 0.9 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

AXLPI-1605-100M



Extreme Low Profile Power Inductors



AXLPI-1605 Series

Request Samples

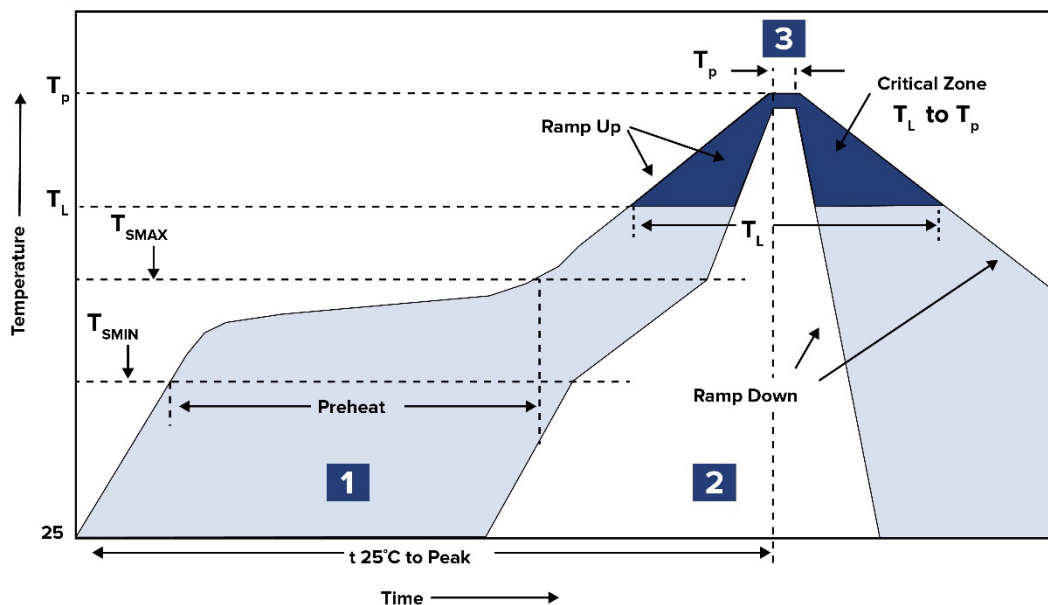


Check Inventory



1.6 x 0.9 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile



Zone	Description	Temperature	Times
1	Preheat	$T_{SMIN} \sim T_{SMAX}$ 150°C ~ 200°C	60 ~ 120 sec.
2	Reflow	T_L 217°C	60 ~ 90 sec.
3	Peak heat	T_p 260°C ± 5°C	10 sec. MAX

Extreme Low Profile Power Inductors



AXLPI-1605 Series

Request Samples



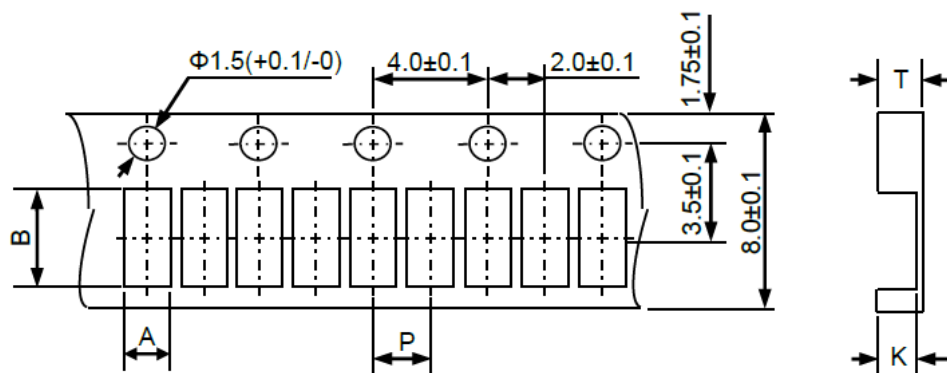
Check Inventory



1.6 x 0.9 x 0.5 mm
RoHS/RoHS II Compliant
MSL Level = 1

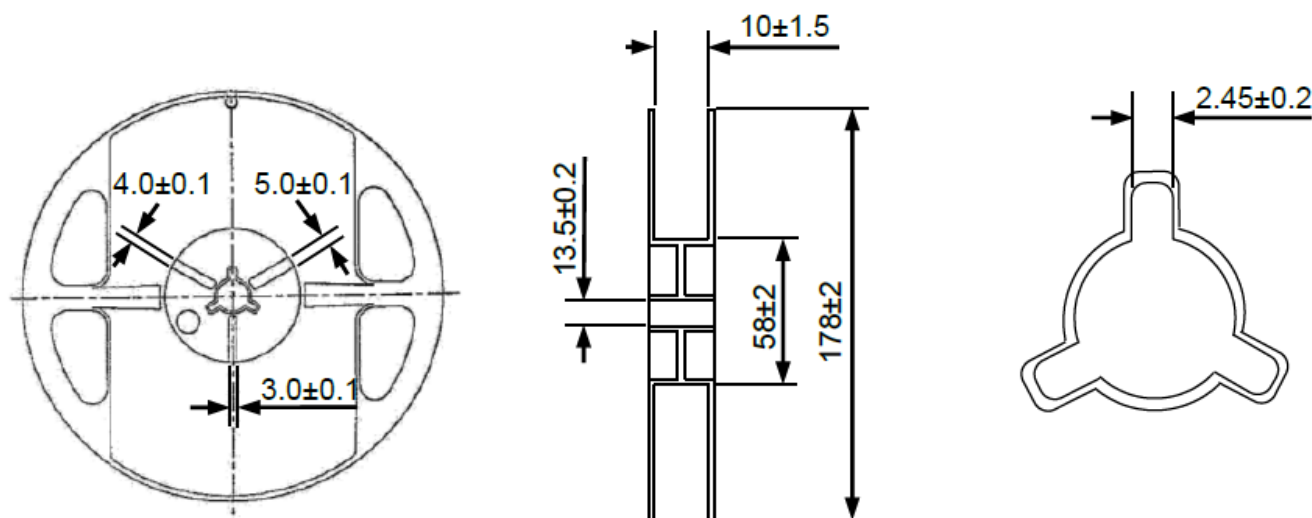
Packaging

Tape & Reel: 3K pcs/ reel



Series	A	B	P	K	T
AXLPI-1605	1.10 ± 0.10	1.90 ± 0.10	4.0 ± 0.10	0.75 ± 0.10	0.80 ± 0.10

Dimensions: mm



Dimensions: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.



5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISION Initial Release :
3/30/2023

ABRACON IS
ISO9001-2015
CERTIFIED