NextGen Components,Inc.

PART CODE: ALPK0912B681KB

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q1011- ALPK0912B681KB	
DATE	Oct. 11, 2023	
REVISION	A1	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	Dip Power Inductors, ALPK series, 2 pins Size Code 0912, Dimension: Ø11.0*H14.0mm Inductance: 680µH, Tolerance ±10%, Rated current: 590mA Max; D.C. Resistance: 1.6 Ω Max. Operating Temp. Range -40°C ~+125°C. Package in Tray, 200pcs/Tray, RoHS/RoHS III Compliant	
CUSTOMER		
CUSTOMER PART NO.		
CROSS REF. PART NO.		
ORIGINAL MFG/PART NO.	Aillen/ ALPK-0912-681K	
PART CODE	ALPK0912B681KB	

VENDOR APPROVE
Issued/Checked/Approved   
DATE: Oct. 11, 2023

CUSTOMER APPROVE
DATE:

NextGen Components, Inc. sales@NextGenComponent.com www.NextGenComponent.com

NextGen Components,Inc.

PART CODE: **ALPK0912B681KB**

DIP POWER INDUCTORS ALPK SERIES

MAIN FEATURE

- Designed By Special Lead Wire To Prevent Open Circuit Failure.
- Small Size And Radial Type.
- For high Q and Self-Resonant Frequency.
- Cross Competitors Parts
- RoHS III Complaint

APPLICATION

- For Switching Regulators, Switching Power Supplies, Typewriters, Amplifiers, Monitors, TVs, UPSs, LED Lighting

RFQ
Request For Quotation

PART CODE GUIDE

ALPK	0912	B	681	K	B
1	2	3	4	5	6

1) **ALPK:** Dip Power Inductors, ALPK series, 2 pins

2) **0912**: Size Code 0912, Dimension: Ø11.0*H14.0mm

3) **B**: Heigh code Code, B: 14.0mm Max

4) **681:** Nominal Inductance Code, 681: 680µH

5) **K:** Inductance Tolerance**:** K: ±10%; M: ±20%

6) **B**: Internal Control Code or special Parameters code letter A~Z or digits (1-9)

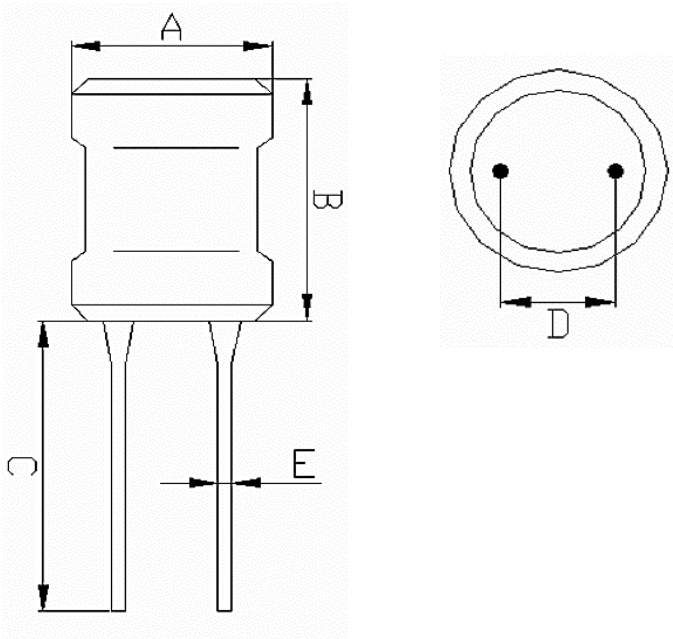
DIMENSION – (Unit: mm)

Image For Reference

ALPK Series

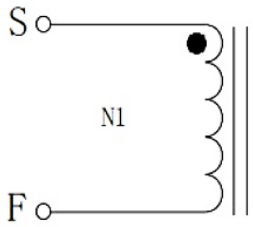
Size Code 0912

Dimension: Ø11.0*H14.0mm



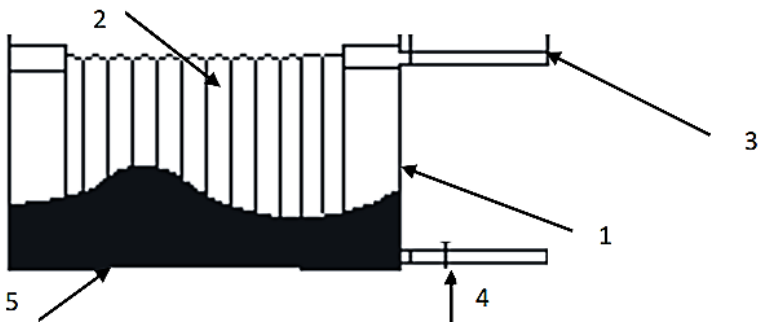
Symbol	Dimension (mm)
A	11.0 Max.
B	14.0 Max.
C	10.0 Typ.
D	5.0 ± 0.5
E	0.60 ± 0.05

CIRCUIT DIAGRAM & WINDING CONSTRUCT



No.	Winding	Terminal	Wire	Turns
1	N1	S~F	2UEW-Φ0.3mm	135Ts（REF）

PRODUCT STRUCTURE DIAGRAM



MATERIAL LIST FOR REFERENCE

No.	Material Name	Material Description	Supply's Name Code
1	Ferrite Core	DRW9*12FSO C5.0 E7.0	DC
2	Enameled Copper Wire	2UEW, Φ0.3mm 155℃*135TS（ref.）	YD
3	Tin-plated Copper Clad Steel	Φ0.6±0.05mm	XG
4	Solder	Sn:99.7%, Cu:0.3%	CS
5	HL Tube	ϕ9*15mm, Black UL tube	XQ

ELECTRICAL CHARACTERISTICS

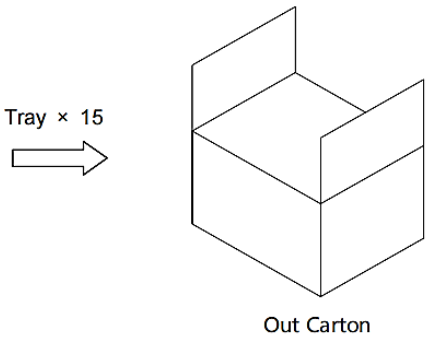
No.	Item	Test Terminal	Specification	Test Condition	Test Equipment
1	Inductance	S-F	680μH ± 10%	1KHz，0.25V @25℃	HM2790B
2	Rated Current	S-F	590mA Max	1KHz，0.25V @25℃	TH2811C+TH1773
3	D.C. Resistance	S-F	1.6Ω Max	@25℃	HM2790B

RELIABILITY TEST

No.	Item	Test Terminal	Requirements
1	Lead Terminal Strength	Static Pulling Force Of 10n In A Direction Parallel To The Lead Terminals For 60±5 Seconds	No Terminal Breakage Or Loosening
2	Resistance To Soldering Heart Test	Fix The Samples On A 1.6mm Thickness PCB, then dip the samples leads into a soldering bath of 270±5 °C up to the PCB for 5±1 second	No Significant Abnormality In Appearance. Deviation Relative To Initial Value: L: Within ±10%
3	Solder Ability Test	immerse the terminal in flux for 5 seconds. the dip the terminal into a soldering bath of 245±5 °C for 2±0.5 seconds	at least 90% of terminal electrode is covered by new solder.
4	Humidity Test	Temperature: 40 °C ±2 °C Humidity: 90% ~95% Rh Duration: 96±4 Hours	No Significant Abnormality In Appearance. Deviation Relative To Initial Value: L: Within ±10%
5	High Temperature Storage Test	Temperature: 85 °C ±2 °C Duration: 96±4 Hours	
6	Low Temperature Storage Test	Temperature: -25 °C ±2 °C Duration: 96±4 Hours	
7	Thermal Shock Test	First -25 ±5 °C For 30±3 Minutes, Last +85 ±5 °C For 30±3 Minutes As 1 Cycles, Go Through 10 Cycles	

PACKAGE

200pcs/Tray, 15 Trays/Box, 3000pcs/Carton



Notes

Storage period

Products which inspected in QC dept. over 6 months ago should be examined and used, Solder ability should be checked if this period is exceeded.

Storage conditions

1. Products should be storage in the warehouse on the following conditions

Temperature: ≦40℃; Humidity : ≦70% relative humidity

No rapid change on temperature and humidity

2. Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of electrode, resulting in poor solder ability.

3. Products should be storage on the palette for the prevention of the influence from humidity, dust and so on.

4. Products should be storage in the warehouse without heat shock, vibration, direct sunlight and so on.

5. Products should be storage under the airtight packaged condition.

ROHS COMPLIANCE

- The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained from Download Center at www.nextgencomponent.com.

REACH COMPLIANCE

- REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained from Download Center at www.nextgencomponent.com .

DISCLAIMER AND NCNR

1) All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
2) NextGen Component, Inc (*NextGen*) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
3) *NextGen* makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does *NextGen* assume any liability for application assistance or customer product design.
4) *NextGen* does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application. No license is granted by implication or otherwise under any intellectual property rights of NextGen.
5) *NextGen* products are not authorized for use as critical components in life support devices or systems without express written approval by *NextGen.*
6) *NextGen* requires that customers first obtain an RMA (Returned Merchandise Authorization) number prior to returning any products. Returns must be made within 30 days of the date of invoice, be in the original packaging, unused and like-new condition. At the time of quoting or purchasing, a product may say that it is Non-Cancelable/ Non-Returnable (NCNR). These products are not returnable and not refundable.