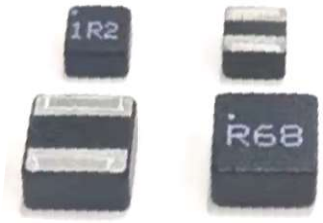
方成电子（东莞）有限公司

SMD High Current Flat wire power Inductor

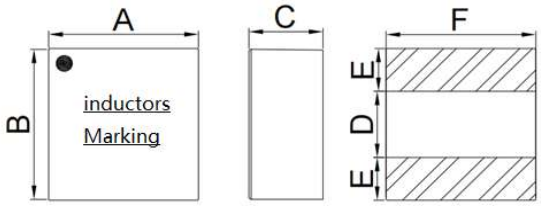
FC-ALX –Series

Features:

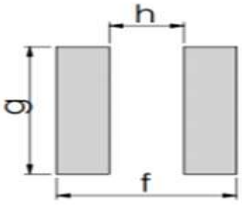
1. Low acoustic noise and low leakage
2. flux noise by shielded construction
3. High saturation current
4. Extremely low DCR
5. Magnetically shielded
6. Operating temperature: –40 °C to +125 °C



1. Dimensions:mm



2. RecommendeLand Pattern: mm



3 .Schematic:

4. Dimensions

Series	A	B	C	D	E	F	f	g	h
FC-ALX3012D	3.2±0.2	3.0±0.2	1.20 Max.	1.2±0.2	0.7±0.2	3.2 Typ	3.15 Typ.	3.4 Typ.	1.0 Typ.
FC-ALX4015D	4.2±0.2	4.2±0.2	1.60 Max.	1.4±0.2	1.2±0.2	4.2Typ	4.30 Typ.	4.4 Typ.	1.2 Typ.
FC-ALX4020D	4.2±0.2	4.2±0.2	2.10 Max.	1.4±0.2	1.2±0.2	4.2Typ	4.30 Typ.	4.4 Typ.	1.2 Typ.
FC-ALX4030D	4.2±0.2	4.2±0.2	3.10 Max.	1.4±0.2	1.2±0.2	4.2Typ	4.30 Typ.	4.4 Typ.	1.2 Typ.
FC-ALX5020D	5.3±0.2	5.1±0.2	2.10 Max.	2.0±0.2	1.4±0.2	5.3Typ	5.50 Typ.	5.7Typ	1.7 Typ.
FC-ALX5030D	5.3±0.2	5.1±0.2	3.10 Max.	2.0±0.2	1.4±0.2	5.3Typ	5.50Typ.	5.7Typ	1.7 Typ.
FC-ALX5050D	5.3±0.2	5.1±0.2	5.10 Max.	2.0±0.2	1.4±0.2	5.3Typ	5.50Typ.	5.7Typ	1.7 Typ.
FC-ALX6015D	6.6±0.2	6.4±0.2	1.60 Max.	2.5±0.3	1.9±0.2	6.6 Typ	6.80 Typ	7.0 Typ	2.3 Typ.
FC-ALX6020D	6.6±0.2	6.4±0.2	2.0 Max.	2.5±0.3	1.9±0.2	6.6 Typ	6.80 Typ	7.0 Typ	2.3 Typ.
FC-ALX6030D	6.6±0.2	6.4±0.2	3.10 Max.	2.5±0.3	1.9±0.2	6.6 Typ	6.80 Typ	7.0 Typ	2.3 Typ.
FC-ALX6050D	6.6±0.2	6.4±0.2	5.10 Max.	2.5±0.3	1.9±0.2	6.6 Typ	6.80 Typ	7.0 Typ	2.3 Typ.
FC-ALX7020D	7.8±0.2	7.8±0.2	2.0 Max.	2.8±0.3	2.4±0.2	7.8Typ	8.00 Typ	8.2Typ	2.6±0.2

FangchengElectronics(Dongguan)Co.,LTD TEL：0769-82988010 FAX：0769-82988065
E-mail:yhl@fangchengcoils.com http://www.fangchengcoils.com

SMD High Current Flat wire power Inductor

5. Electrical Properties:

5.1 **FC-ALX3012D-Series**

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Units	μH	mΩ		A	A	A	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX3012D-R25MT	0.25±20%	5.80	6.50	8.00	7.20	7.20	R25
FC-ALX3012D-R56MT	0.56±20%	11.2	12.5	6.00	5.40	5.40	R56
FC-ALX3012D-R68MT	0.68±20%	13.5	15.5	5.50	5.00	5.00	R68

5.2 FC-ALX4015D-Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Units	μH	mΩ		A	A	A	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX4015D-R33MT	0.33±20%	4.90	5.50	11.5	10.5	10.3	R33
FC-ALX4015D-R47MT	0.47±20%	5.75	6.20	10.8	10.3	10.3	R47
FC-ALX4015D-R68MT	0.68±20%	8.10	8.90	8.80	8.30	8.30	R68
FC-ALX4015D-R82MT	0.82±20%	9.40	10.5	8.10	7.60	7.60	R82
FC-ALX4015D-1R0MT	1.00±20%	10.6	11.8	7.50	7.00	7.00	1R0

5.3 FC-ALX4020 Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Units	μH	mΩ		A	A	A	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX4020D-R33MT	0.33±20%	2.80	3.10	16.1	15.2	16.1	R33
FC-ALX4020D-R47MT	0.47±20%	4.10	4.60	13.4	11.5	13.4	R47
FC-ALX4020D-R56MT	0.56±20%	5.10	5.70	10.2	9.80	10.5	R56
FC-ALX4020D-R68MT	0.68±20%	5.60	6.40	10.2	9.80	10.5	R68
FC-ALX4020D-R82MT	0.82±20%	6.50	7.50	9.30	8.80	9.30	R82
FC-ALX4020D-1R0MT	1.00±20%	7.60	8.40	8.80	8.20	8.80	1R0
FC-ALX4020D-1R5MT	1.50±20%	12.4	13.6	7.90	7.50	7.90	1R5
FC-ALX4020D-2R2MT	2.20±20%	21.1	22.5	7.10	6.40	7.10	2R2
FC-ALX4020D-3R3MT	3.30±20%	25.2	28.0	5.40	4.70	4.70	3R3

SMD High Current Flat wire power Inductor

5.4 FC-ALX4030D- Series

Part Number	Inductance/μH	DC R mΩ		Saturation Current A		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX4030D-R33MT	0.33±20%	2.55	3.00	16.5	15.0	14.8	R33
FC-ALX4030D-R47MT	0.47±20%	3.15	3.50	14.5	13.0	14.5	R47
FC-ALX4030D-R56MT	0.56±20%	3.51	3.90	14.0	12.3	14.0	R56
FC-ALX4030D-R68MT	0.68±20%	3.78	4.30	12.5	11.5	12.5	R68
FC-ALX4030D-1R0MT	1.00±20%	5.50	6.20	11.8	10.5	11.8	1R0
FC-ALX4030D-1R2MT	1.20±20%	6.80	7.50	10.5	9.80	10.5	1R2
FC-ALX4030D-1R5MT	1.50±20%	7.80	8.60	9.60	8.90	9.60	1R5
FC-ALX4030D-2R2MT	2.20±20%	10.7	11.8	8.10	7.30	8.10	2R2
FC-ALX4030D-3R3MT	3.30±20%	15.9	17.7	6.50	5.80	6.50	3R3
FC-ALX4030D-4R7MT	4.70±20%	21.5	23.4	5.50	5.00	5.50	4R7

5.5 FC-ALX5020D- Series

Part Number	Inductance/μH	DC R/ mΩ		Saturation Current/A		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX5020D-R56MT	0.56±20%	5.30	5.80	18.8	16.5	16.2	R56
FC-ALX5020D-R80MT	0.80±20%	6.80	7.50	14.0	12.5	12.2	R80
FC-ALX5020D-1R0MT	1.00±20%	8.60	9.50	12.0	10.5	10.2	1R0

5.6 FC-ALX5030D- Series

Part Number	Inductance/ μH	DC R/ mΩ		Saturation Current/ A		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX5030D-R80MT	0.80±20%	4.50	4.95	18.5	16.5	16.2	R80
FC-ALX5030D-1R0MT	1.00±20%	5.30	5.80	15.5	14.0	13.7	1R0
FC-ALX5030D-1R2MT	1.20±20%	6.80	7.50	13.8	12.8	12.5	1R2
FC-ALX5030D-1R5MT	1.50±20%	8.10	9.00	13.5	12.5	12.2	1R5
FC-ALX5030D-2R2MT	2.20±20%	11.2	12.5	11.5	10.5	10.2	2R2
FC-ALX5030D-3R3MT	3.30±20%	16.5	18.9	9.00	8.20	7.90	3R3
FC-ALX5030D-4R7MT	4.70±20%	22.5	25.0	7.00	6.30	6.00	4R7

SMD High Current Flat wire power Inductor

5.7 FC-ALX5050D- Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Units	μH	mΩ		A	A	A	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX5050D-4R7MT	4.70±20%						4R7
FC-ALX5050D-5R6MT	5.60±20%						5R6
FC-ALX5050D-6R8MT	6.80±20%	24.5	27.5	6.60	6.00	5.70	6R8
FC-ALX5050D-8R2MT	8.20±20%						8R2
FC-ALX5050D-100MT	10.0±20%	38.5	43.0	5.40	4.80	4.50	100
FC-ALX5050D-150MT	15.0±20%	58.5	65.0	4.10	3.70	3.40	150

5.8 FC-ALX6015D Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Units	μH	mΩ		A	A	A	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX6015D-R15MT	0.15±20%	2.25	2.50	25.0	22.0	21.7	R15
FC-ALX6015D-R33MT	0.33±20%	3.60	4.00	18.0	16.0	15.7	R33
FC-ALX6015D-1R0MT	1.00±20%	9.50	10.5	12.0	10.0	9.70	1R0

5.9 FC-ALX6020D Series

Part Number	Inductance	DC Resistance		Saturation Current		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Units	μH	mΩ		A	A	A	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX6020D-R20MT	0.20±20%	2.05	2.30	30.0	27.0	26.7	R20
FC-ALX6020D-R45MT	0.45±20%	3.40	3.80	24.5	22.1	21.8	R45
FC-ALX6020D-R90MT	0.90±20%	5.85	6.50	16.5	15.0	14.7	R90
FC-ALX6020D-1R1MT	1.10±20%	8.80	9.85	15.5	13.5	13.2	1R1

Note:

1: DCR test data is referenced to 20°C ambient;
2: Isat: Peak current for approximately 30% rolloff at +20 °C;
3: Irms: DC current for an approximate temperature rise of 40 °C without core loss. Derating is necessary for AC currents. PCB layout, trace thickness and width, air-flow, and proximity of other heat generating components will affect the temperature rise. It is recommended that the temperature of the part not exceed 125 °C under worst case operating conditions verified in the end application. Max. *Value*, ΔT＜40℃；for Typ. Value, ΔT is approximate 40℃

SMD High Current Flat wire power Inductor

6.0 FC-ALX6030D Series

Part Number	Inductance/μH	DC Resistance mΩ		Saturation Current A		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX6030D-R33MT	0.33±20%	2.30	2.50	31.0	27.0	26.7	R33
FC-ALX6030D-R47MT	0.47±20%	2.40	2.70	30.0	25.0	24.7	R47
FC-ALX6030D-R68MT	0.68±20%	3.10	3.50	26.0	22.5	22.2	R68
FC-ALX6030D-1R0MT	1.00±20%	4.75	5.30	22.6	17.8	17.5	1R0
FC-ALX6030D-1R2MT	1.20±20%	5.60	6.50	21.5	15.9	15.6	1R2
FC-ALX6030D-1R5MT	1.50±20%	6.80	7.50	16.5	15.1	14.8	1R5
FC-ALX6030D-1R8MT	1.80±20%	8.60	9.50	15.5	13.0	12.7	1R8
FC-ALX6030D-2R2MT	2.20±20%	9.70	10.8	15.0	12.5	12.2	2R2
FC-ALX6030D-3R3MT	3.30±20%	14.3	15.8	14.5	11.0	10.8	3R3
FC-ALX6030D-4R7MT	4.70±20%	21.2	23.5	10.5	9.50	9.20	4R7

6.1 FC-ALX6050D Series

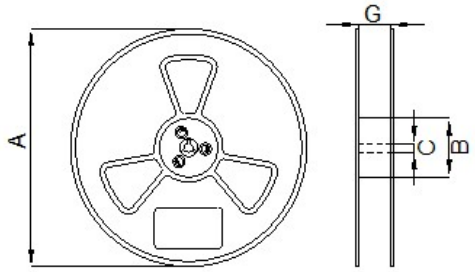
Part Number	Inductance/μH	DC R mΩ		Saturation Current A		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX6050D-1R5MT	1.50±20%	5.00	5.50	20.0	18.0	17.7	1R5
FC-ALX6050D-1R8MT	1.80±20%	5.70	6.30	18.5	16.5	16.2	1R8
FC-ALX6050D-2R2MT	2.20±20%	5.80	6.50	16.0	14.5	14.2	2R2
FC-ALX6050D-3R3MT	3.30±20%	8.55	9.50	14.0	12.0	11.7	3R3
FC-ALX6050D-4R7MT	4.70±20%	13.0	14.5	11.5	10.0	9.70	4R7
FC-ALX6050D-5R6MT	5.60±20%	13.5	14.8	10.5	9.50	9.20	5R6
FC-ALX6050D-6R8MT	6.80±20%	16.5	18.5	10.2	9.20	8.90	6R8
FC-ALX6050D-100MT	10.0±20%	23.5	26.5	8.50	7.80	7.50	100

6.2 FC-ALX7020D Series

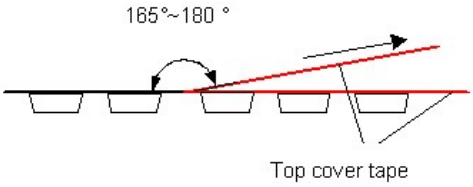
Part Number	Inductance μH	DC R mΩ		Saturation Current A		Heat Rating Current	Marking
	1MHz/0.1V	Typ.	Max.	Typ.	Max.	40℃ rise	
Symbol	L	DCR		Isat	Isat	Irms	-
FC-ALX7020D-R82MT	0.82±20%	5.85	6.50	22.0	20.0	19.7	R82
FC-ALX7020D-1R0MT	1.00±20%	7.60	8.50	18.0	16.5	16.2	1R0
FC-ALX7020D-1R2MT	1.20±20%	8.80	9.80	17.6	15.8	15.5	1R2

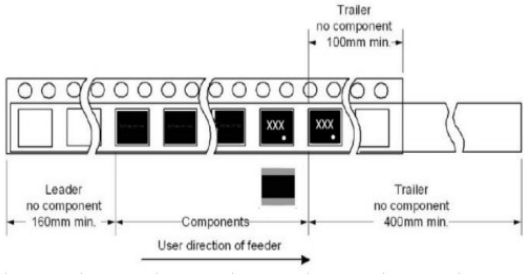
SMD High Current Flat wire power Inductor

7.1 PACKAGE:



Symbol	Dimension
A	330±2
B	100±2
C	13.5±0.2
G	14.3±0.5





7.2Carton ndimensions and packing quantity

Product Series	Quantity/Reel	Inner Carton Quantity	Out Carton Quantity
FC-ALX3012D	4000 pcs	(4000*4)=16000 pcs	(16000*3)=48000pcs
FC-ALX4015 D	3000 pcs	(3000*4)=12000 pcs	(12000*3)=36000pcs
FC-ALX4020 D	2500 pcs	(2500*4)=10000 pcs	(10000*3)=30000pcs
FC-ALX4030 D	2000 pcs	(2000*4)=8000 pcs	(8000*3)=24000pcs
FC-ALX5020 D	2500 pcs	(2500*3)=7500pcs	(7500*3)=22500pcs
FC-ALX5030 D	1500 pcs	(1500*3)=4500pcs	(4500*3)=13500pcs
FC-ALX5050 D	1000 pcs	(1000*3)=3000pcs	(3000*3)=9000pcs
FC-ALX6015 D	2000 pcs	(2000*3)=6000pcs	(6000*3)=18000pcs
FC-ALX6020 D	1500 pcs	(1500*3)=4500pcs	(4500*3)=13500pcs
FC-ALX6030 D	1000 pcs	(1000*3)=3000pcs	(3000*3)=9000pcs
FC-ALX6050 D	800 pcs	(800*3)=2400pcs	(2400*3)=7200pcs
FC-ALX7017 D	1500 pcs	(1500*3)=4500pcs	(4500*3)=13500pcs
FC-ALX7020 D	1500 pcs	(1500*3)=4500pcs	(4500*3)=13500pcs

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Fixed Inductors ***category:***

Click to view products by FANGCHENG ***manufacturer:***

Other Similar products are found below :

CR32NP-100KC 70F224AI MHQ1005P10NJ MHQ1005P1N0S MHQ1005P2N4S MHQ1005P3N6S MHQ1005P5N1S MHQ1005P8N2J PE-53601NL PE-53602NL PG0936.113NLT 9220-20 9310-16 PM06-2N7 PM06-39NJ A01TK 1206CS-471XJ HC2-R47-R HC8-1R2-R HCF1305-3R3-R 1206CS-151XG RCH664NP-4R7M RCP1317NP-391L DH2280-4R7M DS1608C-106 B10TJ B82498B3101J000 ELJ-RE27NJF2 1812CS-153XJ 1812CS-183XJ 1812CS-223XJ 1812LS-104XJ 1812LS-105XJ 1812LS-124XJ 1812LS-154XJ 1812LS-223XJ 1812LS-224XJ 1812LS-563XJ 1812LS-683XJ 1812LS-824XJ NIN-FB101JTR110F NIN-FB471JTR62F NIN-FC1R5JTR220F NIN-HCR15JTRF NIN-HCR33JTRF NIN-HDR22JTRF NIN-HDR82JTRF NIN-HK2N7STRF NIN-PA150KTR370F NIN-PB100KTR550F