Specification of Cjiang products

Customer	
Product Name	Molding SMD Power Inductors
Customer P/N:	
Cjiang P/N:	FXL-U Series

[■ New Released, □ Revised] SPEC No：

REMARK：		
Customer Approval Feedback		

●深圳市长江微电科技有限公司
SZ CJIANG TECHNOLOGY CO.,LTD
ADD：11F, International Science and Technology Building, Fuhong Road, Futian District, Shenzhen
Factory ADD: No. shanyang RD CJIANG Industrial Park HUAi'AN Section HUAI'AN City Jiangsu Province
TEL: 0755-82529562 FAX:0755-83977004
http://www.CJIANG.COM.CN
SALES：E-mail: BOND@Cjiang.com.cn； ann@cjiang.com.cn
R&D：E-mail：LZJ@cjiang.com.cn

Version change history

Rev	Date	Description	APPROVED	CHECKED	DRAWN
1.0	2024/10/8	Document formulation	BOND	MIKO	Roy
2.0	2025/12/25	Additional Model Introduced	BOND	QIUCHAN	QIUCHAN

Caution：

All products listed in this specification are developed, designed and intended for use in general electronics equipment. The products are not designed or Warranted to meet the requirements of the applications listed below, whose performance and/or quality require especially high reliability, or whose failure, malfunction or trouble might directly cause damage to society, person, or property. Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below. Please contact us for more details if you intend to use our products in the following applications.

1. Aircraft equipment.
2. Aerospace equipment.
3. Undersea equipment.
4. nuclear control equipment.
5. military equipment.
6. Power plant equipment.
7. Medical equipment.
8. Transportation equipment (automobiles, trains, ships,etc.)
9. Traffic signal equipment.
10. Disaster prevention / crime prevention equipment.
11. Data-processing equipment.
12. Applications of similar complexity or with reliability requirements comparable to the applications listed in the above.

1.Features:

●High performance (Isat) realized by metal dust core.
●Shielded construction.
●handles high transient current spikes without saturation.
●frequency up to 3MHz.
●Ultra Low buzz noise, due to composite construction.
●Ultra-high current, ultra-low loss.
● Halogen Free & ROHS compliant.
●Operating temperature : -55℃~+125℃.

2.Applications：

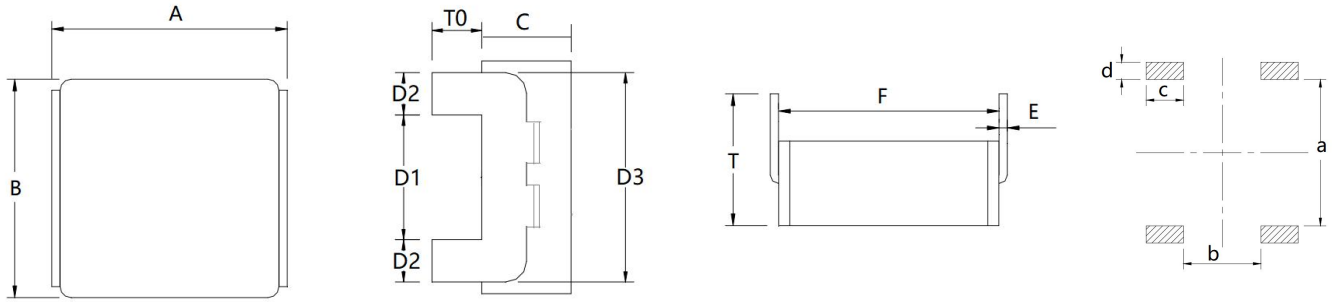
● PDA/Notebook/Desktop, and server applications
● DC/DC converters in distributed power systems
● DC/DC converter for Field Programmable Gate Array(FPGA)

3.Product Identification:

FXL	0640	U	-	R22	M
①	②	③		④	⑤

① Series name
② Product dimensions (0640:7.1X6.6X3.8 mm)
③ Product appearance
④ Inductance Value (R22:0.22uH)
⑤ Inductance Tolerance (M= ± 20%)

4.Appearance shape (unit : mm)：



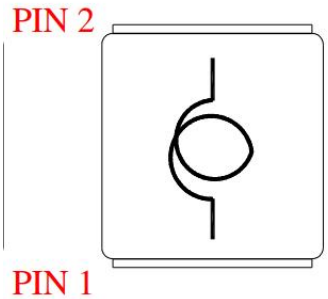
Recommend Land Pattern Dimensions：

series	A	B	C	D1	D2	D3	T	T0	E	F	a	b	c	d
FXL0535U	6.2	5.60	2.20	3.00	1.00	5.00	3.55	1.35	0.25	5.40	5.00	2.50	1.50	1.00
	MAX	±0.20	MAX	±0.20	±0.20	±0.20	MAX	±0.25	±0.05	Typ	Typ	Typ	Typ	Typ

series	A	B	C	D1	D2	D3	T	T0	E	F	a	b	c	d
FXL0640U	7.10	6.60	2.40	4.60	1.00	6.60	3.80	1.15	0.25	6.50	5.80	4.00	1.60	1.00
	MAX	±0.30	MAX	±0.20	±0.30	±0.20	MAX	±0.25	±0.10	Typ	Typ	Typ	Typ	Typ

series	A	B	C	D1	D2	D3	T	T0	E	F	a	b	c	d
FXL0855U	9.10	8.10	4.00	2.50	2.50	7.50	5.50	1.50	0.30	8.00	7.50	2.00	3.00	1.00
	MAX	±0.20	MAX	±0.20	±0.20	±0.20	MAX	±0.25	±0.05	Typ	Typ	Typ	Typ	Typ

5.Schematic：



Coil clockwise around

6.Electrical Characteristics：

Part No.	Inductance	DC Resistance	Saturation Current	Heating Rating Current	Marking (Black)
	L0(μH)±20%	DCR (mΩ)	Isat (A)	Irms (A)	
	100 kHz,1.0V	MAX(TYP)	TYP	TYP	
FXL0535U-R68M	0.68	9.80(9.30)	12.00	13.00	R68

Part No.	Inductance	DC Resistance	Saturation Current	Heating Rating Current	Marking (Black)
	L0(μH)±20%	DCR (mΩ)	Isat (A)	Irms (A)	
	100 kHz,1.0V	MAX(TYP)	TYP	TYP	
FXL0640U-R22M	0.22	3.00(2.60)	34.00	21.00	R22
FXL0640U-R33M	0.33	4.10(3.50)	24.50	18.00	R33
FXL0640U-R47M	0.47	5.10(4.80)	22.00	15.00	R47
FXL0640U-R56M	0.56	6.50(5.50)	17.00	13.00	R56
FXL0640U-R68M	0.68	7.00(5.80)	16.00	12.00	R68
FXL0640U-1R0M	1.00	13.5(10.5)	15.00	9.00	1R0
FXL0640U-1R5M	1.50	20.0(17.0)	14.00	9.00	1R5
FXL0640U-2R2M	2.20	28.0(22.5)	12.00	7.00	2R2
FXL0640U-3R3M	3.30	39.0(35.0)	10.00	5.50	3R3
FXL0640U-4R7M	4.70	50.0(45.0)	7.50	5.00	4R7
FXL0640U-6R8M	6.80	70.0(62.0)	6.00	4.00	6R8
FXL0640U-100M	10.00	101.0(90.5)	4.00	3.10	100
FXL0640U-150M	15.00	160.0(135.0)	3.30	2.50	150

Part No.	Inductance	DC Resistance	Saturation Current	Heating Rating Current	Marking (Black)
	L0(μH)±20%	DCR (mΩ)	Isat (A)	Irms (A)	
	100 kHz,1.0V	MAX(TYP)	TYP	TYP	
FXL0855U-R22M	0.22	1.68(1.50)	50.00	32.00	R22
FXL0855U-R47M	0.47	2.62(2.40)	35.00	28.00	R47

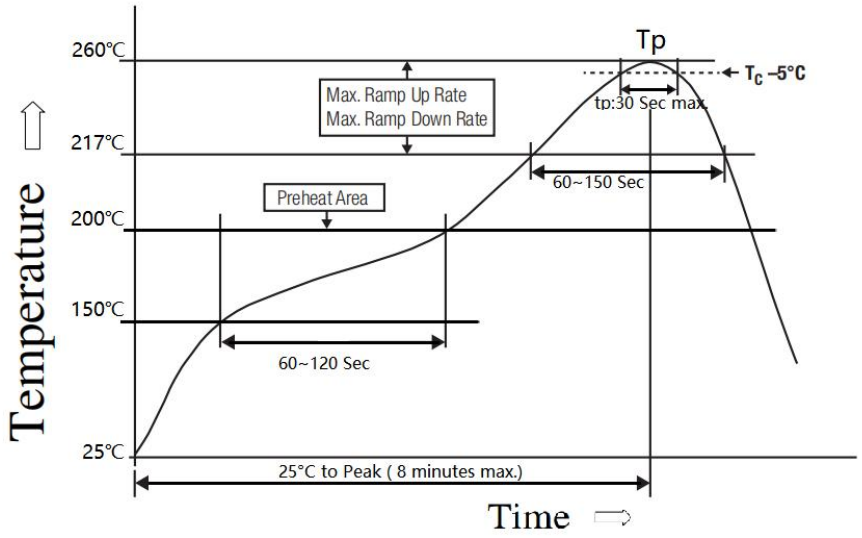
Test remarks

1).All test data is referenced to 25℃ ambient.
2).Inductance Tolerance±20%.
3).Test Condition:100KHz, 1.0Vrms.
4).Rated current: Isat or Irms, whichever is smaller.
5).Isat: DC current at which the inductance drops approximate 30% TYP from its value without current.
6).Irms: DC current that causes the temperature rise (△T =40℃) from 25℃ ambient.
7).L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source orequivalent.
8).DCR tested by a Milliohm meter.
9).Absolute maximum voltage 30VDC.

7. Material list:

NO	ITEM	MATERIAL	Temperatureclass
1	Core	Alloy powder	/
2	Wire	Copper wire	220℃
3	BASE	Tinned copper	/

8.Recommended reflow soldering curve:



Reflow Soldering	Tp:255~260℃ Max.30 seconds (tp)	
	217℃	60~150 seconds
Pre-Heat	150 ~ 200℃	60~120 seconds