

Specification of Cjiang products

Customer	
Product Name	Molding SMD Power Inductors
Customer P/N:	
C iang P/N:	FXL0640U 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. 5thFloor,ChangJiangWeiDianIndustrialPark,No.24YingbinAvenue,ZhongshanCity,GuangdongProvince

TEL: 0755-82529562 FAX:0755-83977004

<http://www.CJIANG.COM.CN>SALES: E-mail: BOND@Cjiang.com.cn; ann@cjiang.com.cnR&D: E-mail: LZJ@cjiang.com.cn

Version change history

Rev	Date	Description	APPROVED	CHECKED	DRAWN
1.0	2025/9/28	Document formulation	BOND	MIKO	Roy

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.

更多资讯,请点击长江微电官网 more information, Please click: WWW.CJIANG.COM.CN

1.Features:

- Halogen Free & ROHS compliant.
- Operating temperature : -55℃~+125℃
- Low profile and low DCR
- Magnetically Shielded construction, low EMI
- Frequency range up to 3MHz
- Minimized acoustic noise and minimized leakage flux noise
- High current carrying capacity, Low core loss

2.Applications:

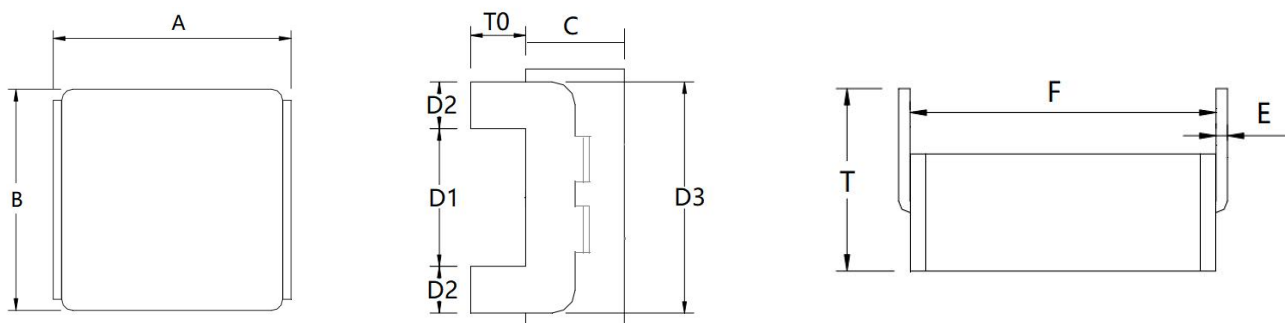
- PC/TV, and server applications
- DC/DC converter for CPU in Notebook / PC /PDA
- VRM for server
- DC switching power supply circuit

3.Product Identification:

FXL 0640 U - R22 - M
① ② ③ ④ ⑤

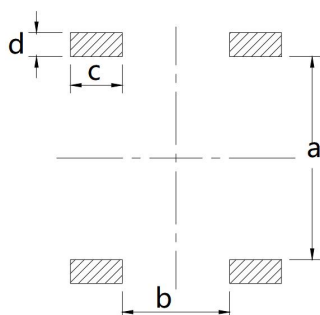
- ① Series name
- ② Product dimensions (0640:7.10X6.60X3.80 mm)
- ③ Product appearance
- ④ Inductance Value (R22:0.22uH)
- ⑤ Inductance Tolerance (M= ± 20%)

4.Appearance shape (unit : mm):



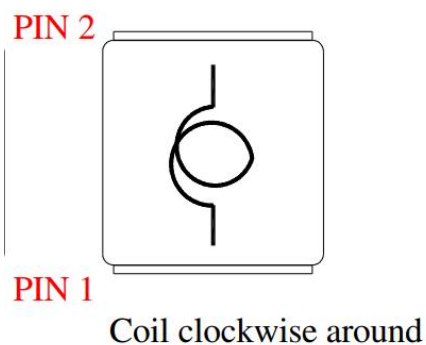
series	A	B	C	D1	D2	D3	T	T0	E	F
FXL0640U-R22-M	7.10	6.60	2.40	4.60	1.00	6.60	3.80	1.15	0.25	6.50
	MAX	±0.30	MAX	±0.20	±0.30	±0.20	MAX	±0.25	±0.10	Typ

5.Recommend Land Pattern Dimensions:



a	b	c	d
5.8	4.0	1.6	1.0
Typ	Typ	Typ	Typ

6.Schematic:



7.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	
FXL0640U-R10-M	0.10	2.00(1.70)	55.00	25.00	R10
FXL0640U-R22-M	0.22	3.00(2.60)	34.00	21.00	R22
FXL0640U-R33-M	0.33	4.10(3.50)	24.50	18.00	R33
FXL0640U-R47-M	0.47	5.10(4.80)	22.00	15.00	R47
FXL0640U-R56-M	0.56	6.50(5.50)	17.00	13.00	R56
FXL0640U-R68-M	0.68	7.00(5.80)	16.00	12.00	R68
FXL0640U-1R0-M	1.00	13.5(10.5)	15.00	9.00	1R0
FXL0640U-1R5-M	1.50	20.0(17.0)	14.00	9.00	1R5
FXL0640U-2R2-M	2.20	28.0(22.5)	12.00	7.00	2R2
FXL0640U-3R3-M	3.30	39.0(35.0)	10.00	5.50	3R3
FXL0640U-4R7-M	4.70	50.0(45.0)	7.50	5.00	4R7
FXL0640U-6R8-M	6.80	70.0(62.0)	6.00	4.00	6R8
FXL0640U-100-M	10.00	101(90.5)	4.00	3.10	100
FXL0640U-150-M	15.00	160(135)	3.30	2.50	150

- 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 ($\Delta T = 40^{\circ}\text{C}$) from 25℃ ambient.
- 7).L tested by Wayne kerr 3260B LCR meter with Wayne kerr 3265B bias current source or equivalent.
- 8).DCR tested by a Milliohm meter.
- 9).Absolute maximum voltage 30VDC.

8. Material list:

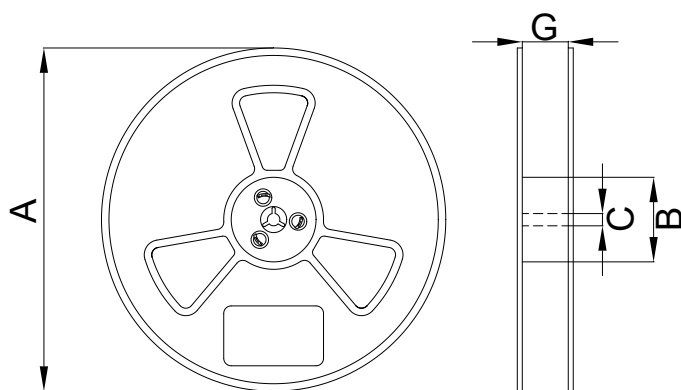
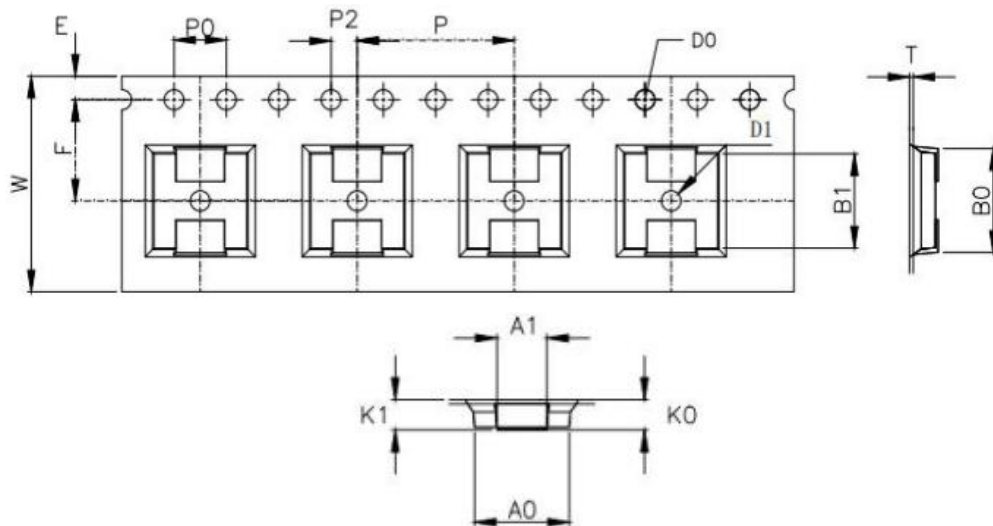
NO	ITEM	MATERIAL	Temperatureclass
1	Core	Alloy powder	/
2	Wire	Copper wire	220℃
3	BASE	Tinned copper Thickness: 0.25mm	/

9. Typical performance curves:

10.Packaging Information:

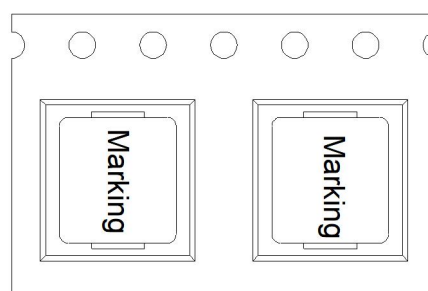
1).Tape and Reel: [mm]

ITEM	W	A0	B0	K0	P	E	F	D0	P0	P2	T
DIM	16.00 ±0.20	7.00 ±0.10	7.90 ±0.10	4.30 ±0.10	12.00 ±0.10	1.75 ±0.10	7.50 ±0.10	1.50 ±0.10	4.00 ±0.10	2.00 ±0.10	0.35 ±0.05

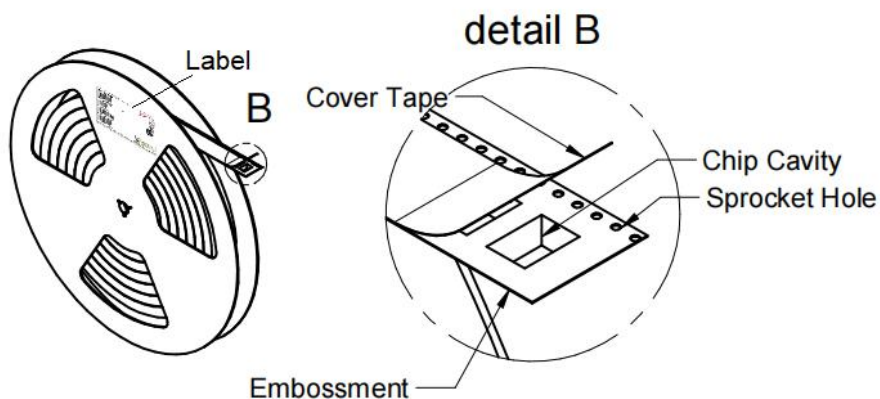


REEL SPEC	13"
A±1.0	330.0
B±1.0	100.0
C±0.50	13.2
G±0.20	16.5

2) .Tape Direction



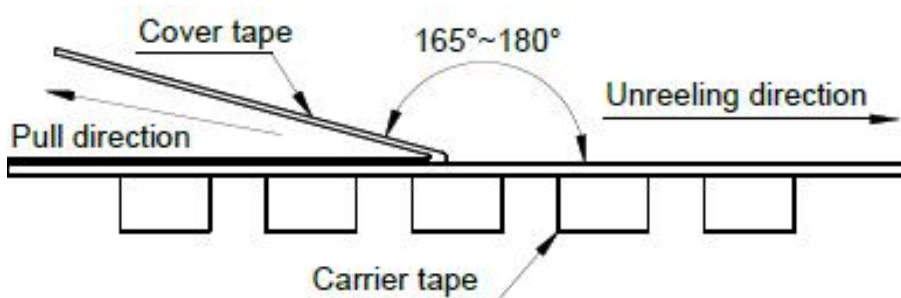
3). Cover tape peel off condition



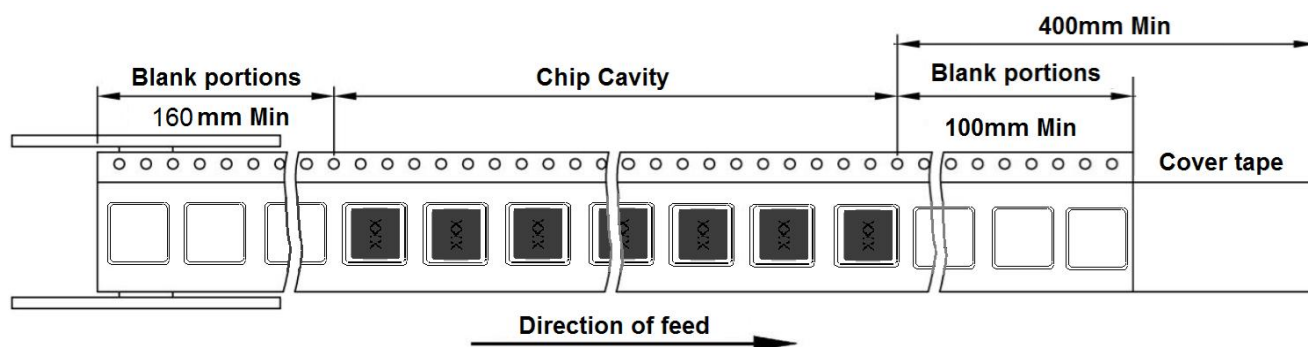
4). Peel force of top cover tape

a) The peel speed shall be about 300 mm/minute

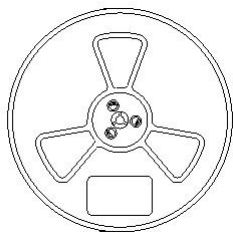
b) The peel force of top cover tape shall be between 0.1 to 1.3N



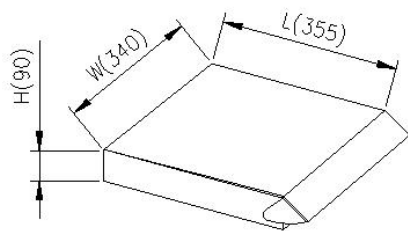
5). Tape and Reel Specifications: (Dimensions are in mm)



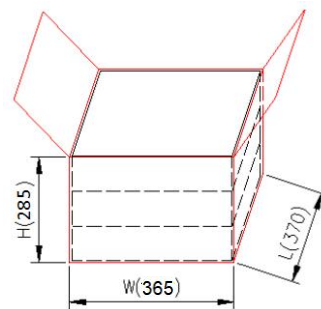
6). OUTSIDE PACKAGING



13" 1000 pcs



Small carton: 3000 pcs

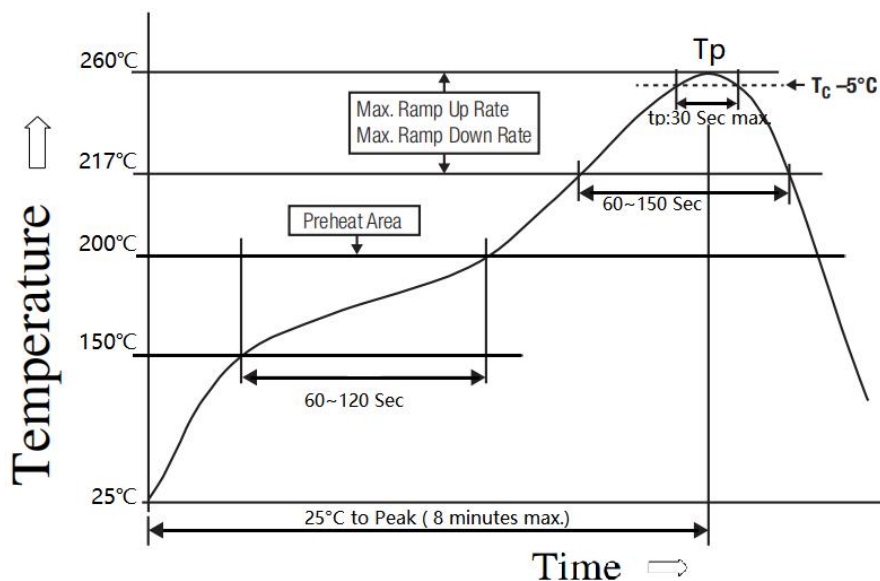


Outer carton: 9000 pcs

备注:

- 1.包装袋规格: 380*450mm (1 REEL.) .
- 2.内箱规格: 355*340*90mm (3 REEL.) .
- 3.外箱规格: 370*365*285mm (9 REEL.) .

11.Recommended reflow soldering curve:



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

12.Safety Reminders:



- .The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- .Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- .Before soldering, be sure to preheat components.
The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- .Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- .Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- .Don't touch electrodes directly with bare hands as oil secretions may inhibit soldering Always ensure optimum conditions for soldering.
- .Please always handle products carefully to prevent any damage caused bydropping down or inappropriate removing.
- .Don't bend the terminals with excessive stress in case of any wire fracture.
- .Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
A malfunction may occur due to magnetic interference.
- .Do not use for a purpose outside of the contents regulated in the delivery specifications.
- .The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equip- ment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equip- ment, industrial robots) under a normal operation and use condition.
- .The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or qual- ity require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.
 - 1) Aerospace/aviation equipment
 - 2) Transportation equipment (cars, electric trains, ships, etc.)
 - 3) Atomic energy-related equipment
 - 4) Seabed equipment
 - 5) Military equipment
 - 6) Safety equipment
 - 7) Other applications that are not considered general-purpose applications
- .If you need to rinse this product, please contact us.