Specification of Cjiang products

Customer	
Product Name	Wire Wound Molded SMD Power Inductors
Customer P/N:	
Cjiang P/N:	FAUL0421TF 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: 5th Floor, ChangJiangWeiDian Industrial Park, No. 24 Yingbin Avenue, Zhongshan City, Guangdong 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	**2025/11/11**	**Document formulation**	**BOND**	**Charles**	**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. Traffic signal equipment.
9. Disaster prevention / crime prevention equipment.
10. Data-processing equipment.
11. Applications of similar complexity or with reliability requirements comparable to the applications listed in the above.
12. This series of products of our company apply to regular use in general automotive electronics and in-car electronics.

Not applicable to components related to driving safety of automobiles.

The company does not guarantee the applicability or performance of this series related to equipment failures during the operation of automobiles — including but not limited to brake failure, driving failure, poor operation, and other failures that may cause damage to the lives, bodies, or property of human, as well as applications that may have significant social impact (hereinafter referred to as "specific uses").

introduction

AEC-Q200

- Halogen Free ,ROHS compliance
- High rated current
- 165℃ maximum total temperature operation
- 4.5 x 4.3 x 2.1mm maximum surface mount package
- Low core loss
- Ultra low buzz noise due to molding construction

Applications

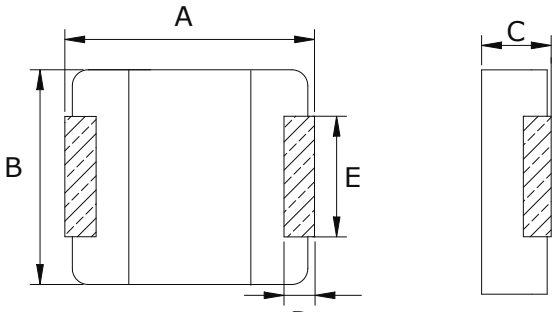
- Laptops and PCs
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices
- SSD modules

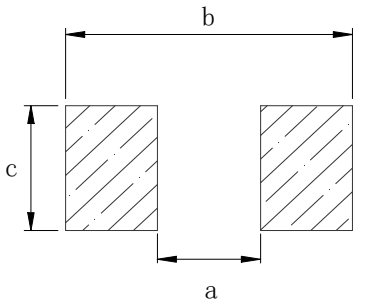
Product Identification

FAUL	0421	TF	-1R5	MT
①	②	③	④	⑤

① FAUL---------- Series name
② 0421 ---------- Dimension
③ TF---------- Special products
④ 1R5 ---------- Inductance Value (1R5 = 1.5μH)
⑤ M ---------- Inductance Tolerance (M= ± 20%)

Dimensions-mm （Unit：mm）





Recommend Land Pattern

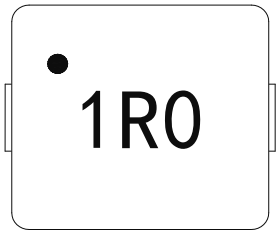
A	B	C	D	E	a typ	b typ	c typ
4.2±0.3	4.0±0.3	2.1MAX	0.8±0.3	3.0±0.3	2.0	5.0	3.5

Marking

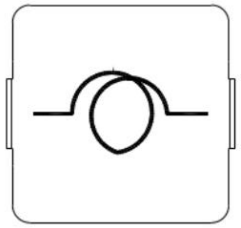
The inductor is marked with a 3-digit code

Nominal Inductance	
Example	Nominal Value
1R0	1.0 μH
100	10 μH
101	100 μH

Note：Using LASER for marking



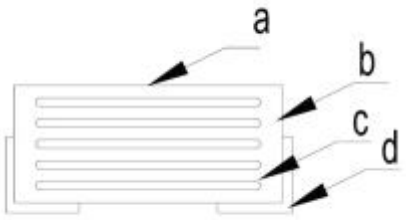
Connection



Upside of Chip

Structure and Components

Symbol	Components	Material
a	MARKING	LASER
b	CORE	Alloy Sponge Powder
c	WIRE	Polyurethane copper wire
d	TERMINAL	Copper plated with Sn



Specification

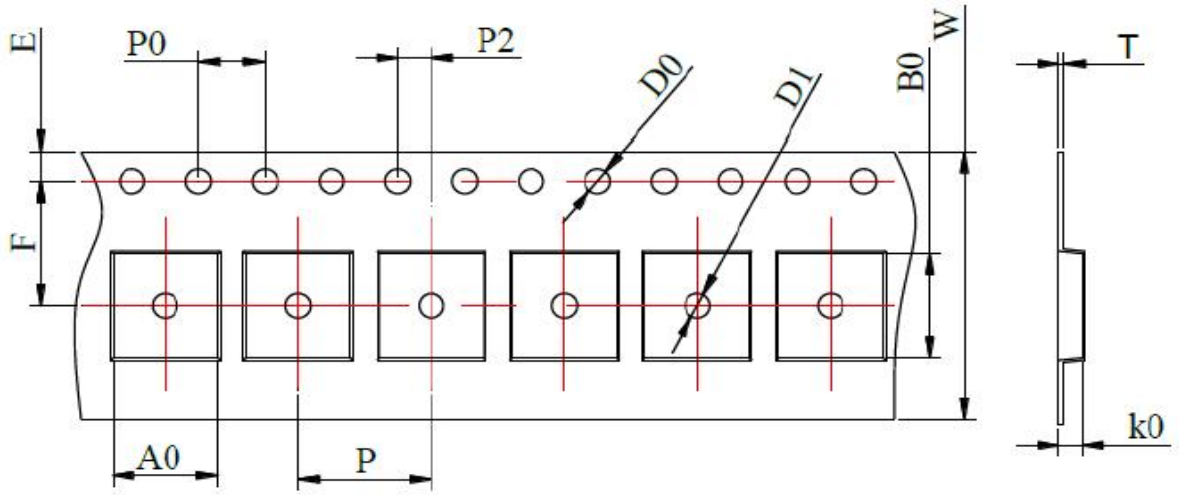
Part No.	Inductance	DC Resistance		Heating Rating Current		Saturation Current		Rated Voltage
	L0 (μH)	DCR (mΩ)		Irms (A)		Isat (A)		(V)
	±20 %, 100 kHz, 1V	TYP	MAX	TYP.	MAX	TYP.	MAX	MAX
FAUL0421TF-R10MT	0.10	1.9	2.28	21.0	18.9	25.0	21.4	50
FAUL0421TF-R22MT	0.22	5.3	6.4	11.4	10.3	13.7	11.7	50
FAUL0421TF-R33MT	0.33	5.8	7.0	10.9	9.8	13.5	11.5	50
FAUL0421TF-R40MT	0.40	6.0	7.2	10.7	9.6	12.6	10.8	50
FAUL0421TF-R47MT	0.47	6.3	7.6	10.6	9.5	10.9	9.4	50
FAUL0421TF-R60MT	0.60	8.1	9.3	12.1	10.9	10.4	8.9	50
FAUL0421TF-R68MT	0.68	8.6	10.3	9.1	8.2	9.5	8.1	50
FAUL0421TF-1R0MT	1.0	9.1	10.5	8.9	8.0	7.9	6.7	50
FAUL0421TF-1R5MT	1.5	13.4	15.4	7.3	6.5	6.2	5.3	50
FAUL0421TF-2R2MT	2.2	20.9	23.0	5.8	5.3	5.3	4.5	50
FAUL0421TF-3R3MT	3.3	33.4	36.8	4.6	4.1	4.0	3.4	50
FAUL0421TF-4R7MT	4.7	48.6	53.8	4.0	3.6	4.6	3.6	40
FAUL0421TF-5R6MT	5.6	61.8	71.1	3.4	3.0	2.9	2.5	40
FAUL0421TF-6R8MT	6.8	80.5	92.5	2.9	2.6	2.6	2.2	40
FAUL0421TF-8R2MT	8.2	103.0	118.5	2.6	2.3	2.5	2.1	40
FAUL0421TF-100MT	10.0	112.0	129.0	2.5	2.2	2.4	2.0	40

Notes

1. All test data is referenced to 25 °C ambient
2. Operating temperature range - 55 °C to + 165 °C
3. Irms (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C)
4. Isat(A):DC current (A) that will cause L0 to drop approximately 30 %
5. The part temperature (ambient + temp rise) should not exceed 165 °C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

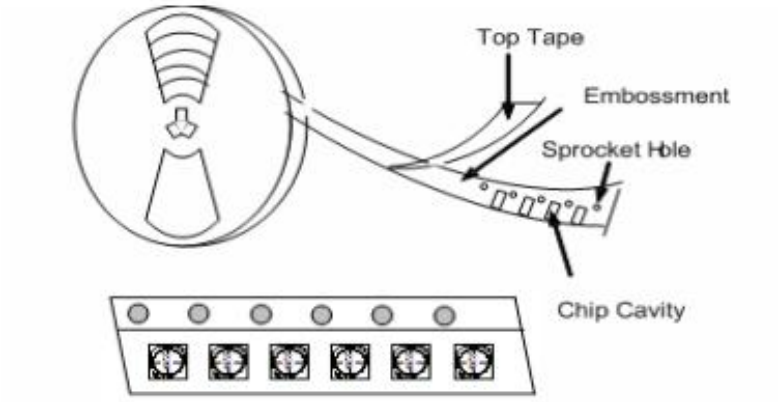
Packaging Information

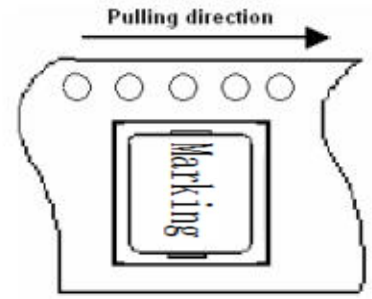
(1) Tape Packaging Dimensions（Unit：mm）



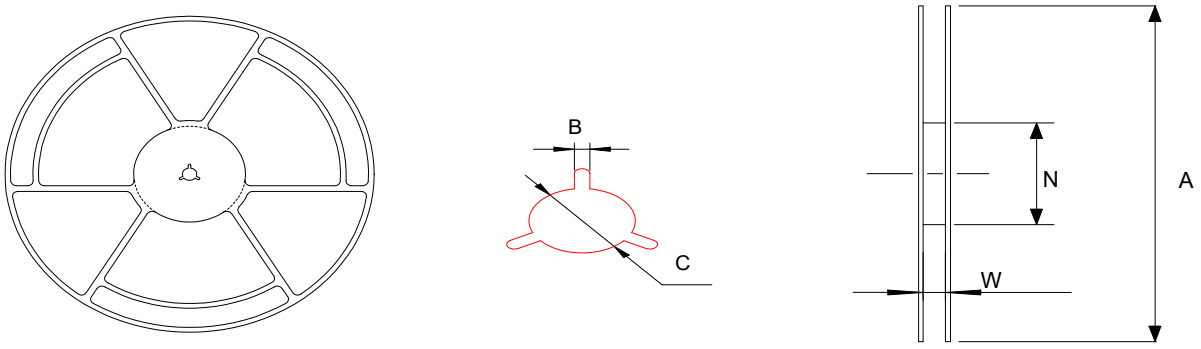
Type	Tape dimensions (mm)											
	W	P	P0	P2	D0	D1	T	A0	B0	K0	E	F
FAUL0421TF	12 ±0.3	8 ±0.1	4 ±0.1	2 ±0.1	1.5 ±0.1	1.5 ±0.1	0.35 ±0.05	4.4 ±0.1	4.7 ±0.1	2.4 ±0.1	1.75 ±0.1	5.5 ±0.1

Taping Drawings (UNIT:mm)





(2) Reel Dimensions（Unit：mm）



A	W	N	B	C
330+2.0	12.8±0.2	97±0.5	2.2+0.5	13.0±0.2

(3) Packaging Quantity

3000 pcs / reel