

Version:  
June 27, 2017



# TOKEN

## (TCAL)

# Fixed Inductors

### **Token Electronics Industry Co., Ltd.**

**Taiwan:** No.137, Sec. 1, Zhongxing Rd., Wugu District,  
New Taipei City, Taiwan, R.O.C. 24872  
Tel: +886 2981 0109 Fax: +886 2988 7487

**China:** 12F, Zhong Xing Industry Bld., Chuang Ye Road,  
Nan Shan District, Shen Zhen City,  
Guang Dong, China 518054  
Tel: +86 755 26055363; Fax: +86 755 26055365

[Web: www.token.com.tw](http://www.token.com.tw)

[Email: rfq@token.com.tw](mailto:rfq@token.com.tw)



### ▶ Product Introduction

#### Introduction (TCAL)

##### Features :

- TV, VCR.
- Computer Devices
- Electronics products.
- Communication equipment.

##### Applications :

- Low Cost.
- Coating epoxy resin that ensures the humidity resistance to be long life.

Token fixed inductors meet the needs of a variety of manufacturing methods. Token (TCAL) fixed inductor utilizes the latest winding technology with special core material, sturdy construction, outer layer of epoxy resin processing, high Q value and self-resonance frequency, wide inductance range, high reliability, and low price.

The (TCAL) series is ideal for consumer electronics such as digital set-top boxes (DVB), digital video disc players (DVD), video cassette recorders (VCR), television (TV), computers, audio equipment, mobile communications, telephone, and various general-purpose electronic applications.



Token highly efficient automated production processes offer a full range of high-quality inductors products suitable for automatic plug-in operation. The (TCAL) provides 0204,0307,0410, and 0510 size varieties of different forming, such as Normal & Short Form, F Forming, U Forming, Pana Forming, and bulk products to meet the needs of a variety of manufacturing methods.

Token (TCAL) through hole inductors are full line conforming with RoHS specifications, Pb-free standards. Provide a complete inductor size and full range inductance, and custom parts are available on request. Token will also produce devices outside these specifications to meet specific customer requirements, contact us with your specific needs. For more information, please link to Token official website "[Through Hole Inductors](#)".

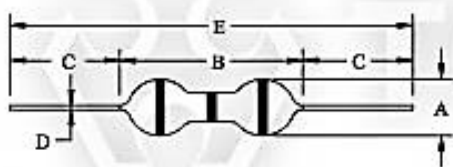


## Normal Forming

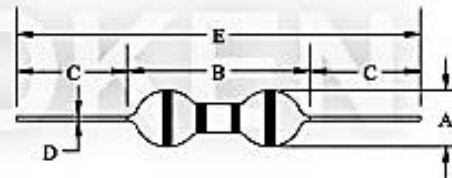
### Normal Form & Short Form (TCAL)

Type	$\Phi A(\text{max})$	B(max)	$C \pm 3.0$	$\Phi D \pm 0.05$	$E \pm 1.5$
TCALN0204	2.8	5.0	29.5	0.50	62.5
TCALS0204	2.8	5.0	16.0	0.50	36.5
TCALN0307	3.0	7.0	28.0	0.50	62.5
TCALS0307	3.0	7.0	15.0	0.50	36.5
TCALN0410	4.0	10.0	26.0	0.65	62.5
TCALS0410	4.0	10.0	14.0	0.65	36.5
TCALN0510	5.0	10.0	26.0	0.65	62.5
TCALS0510	5.0	10.0	14.0	0.65	36.5

TCAL0204



TCAL0307,TCAL0410,TCAL0510

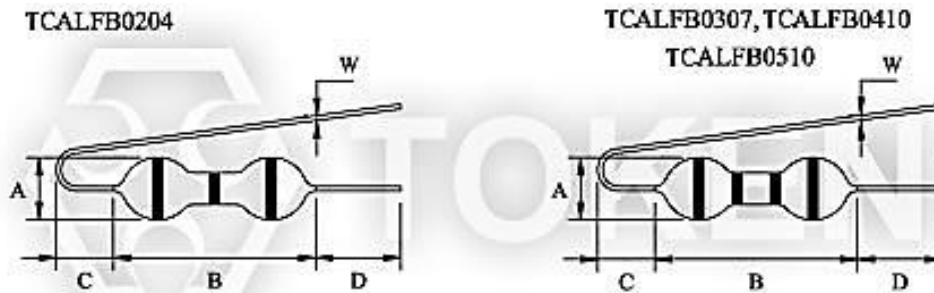


Normal Form & Short Form (TCAL) Dimensions

## F Forming

### F Forming (TCAL)

Sym.	TCALFB0204	TCALFB0307	TCALFB0410	TCALFB0510
A (max)	2.80	3.00	4.00	5.00
B (max)	5.00	7.00	10.00	10.00
C (max)	6.00	6.00	6.00	6.00
D (min)	3.60	3.60	4.00	4.00
W ± 0.05	0.50 Φ	0.50 Φ	0.65 Φ	0.65 Φ

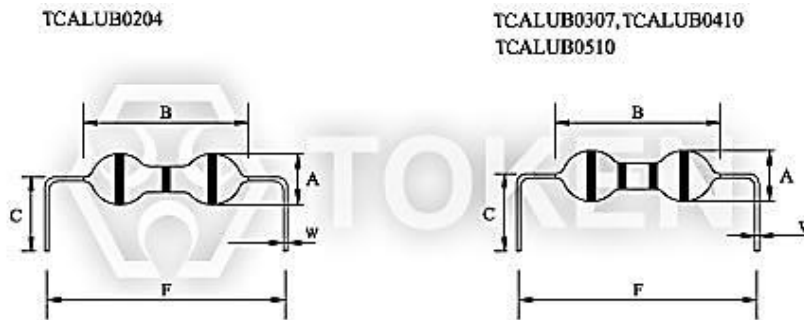


F Forming (TCAL) Dimensions

## U Forming

### U Forming (TCAL)

Sym.	TCALUB0204	TCALUB0307	TCALUB0410	TCALUB0510
A (max)	2.80	3.00	4.00	5.00
B (max)	5.00	7.00	10.00	10.00
C (min)	3.60	3.60	3.60	3.60
F	6 ~ 15	10 ~ 20	12.5 ~ 20	12.5 ~ 20
W ± 0.05	0.50 Φ	0.50 Φ	0.65 Φ	0.65 Φ

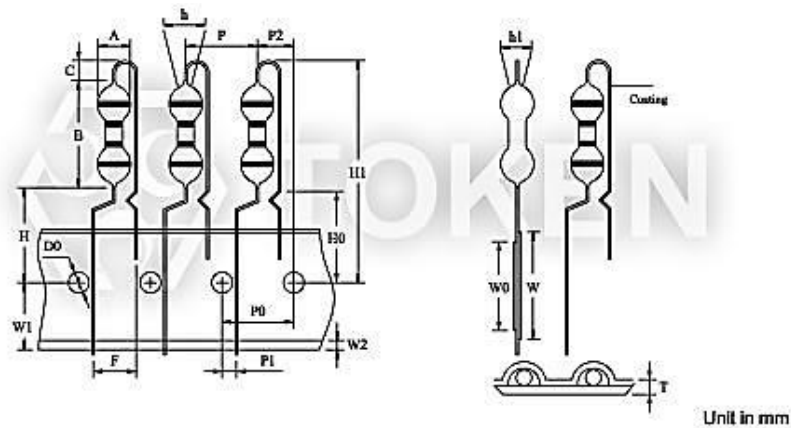


U Forming (TCAL) Dimensions

## Pana Forming

### Pana Forming (TCAL 0307 Series)

A	B	C	D0	F	H	H0	H1	h	h1
3.00 (max)	7.00 (max)	3.00 +0.00 -1.00	4.00±0.3	5.00 +0.80 -0.20	19.00 +1.00 -0.30	16.00 ±0.5	28.50 (max)	0.00 ±2.0 (±5°)	0.00 ±2.0 (±5°)
P	P0	P1	P2	T	W	W0	W1	W2	
12.7±1.0	12.7±0.3	3.85±0.7	6.35±1.3	0.7±0.2	18.00 +1.00 -0.50	13.00±1.0	9.00 +0.75 -0.50	4.00 (max)	

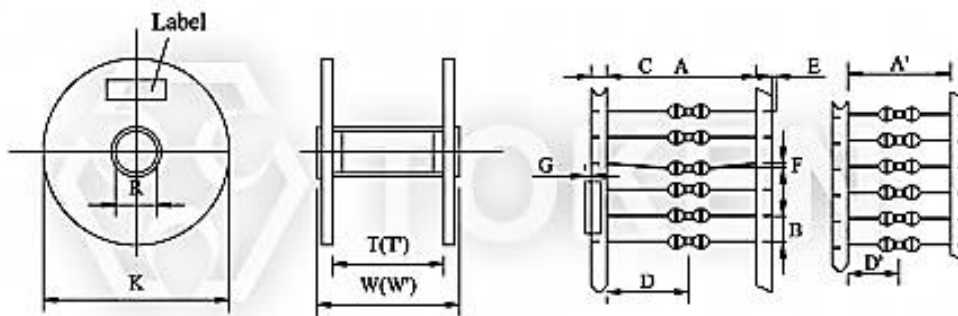


Pana Forming (TCAL) Dimensions

## ▶ Reel & Packing

### Dimensions of Tape & Reel Axial Lead Type (TCAL)

Sym.	Dimensions	Sym.	Dimensions	Sym.	Dimensions
A	52.00 ± 1.50	E	0.00 ± 0.50	T'	45.00 ± 0.50
A'	26.00 ± 1.50	F	1.00 (max)	W	76.00 ± 0.50
B	5.00 ± 0.50	G	1.00 (max)	W'	50.00 ± 0.50
C	6.00 ± 1.00	K	355.00 ± 0.50		
D	26.00 ± 0.50	R	15.00 ± 0.50		
D'	13.00 ± 0.50	T	71.00 ± 0.50		



Axial Lead Type (TCAL) Dimensions of Tape & Reel

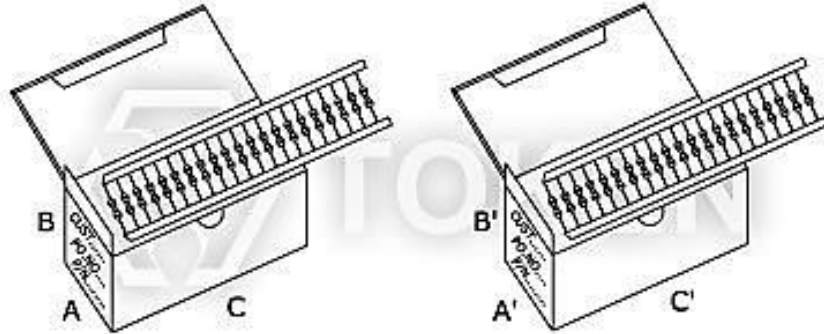
### Packing Unit for Reel Axial Lead Type (TCAL)

Item	TCAL0204	TCAL0307	TCAL0410	TCAL0510
Q' TY/ Reel	5,000 PCS	5,000 PCS	5,000 PCS	3,000 PCS
GW/Reel (Approx.)	1.4 Kgm	1.6 Kgm	2.0 Kgm	2.0 Kgm
Q' TY/CTN.	25,000 PCS	25,000 PCS	25,000 PCS	15,000 PCS
NW/CTN. (Approx.)	7.0 Kgm	8.0 Kgm	10.0 Kgm	10.0 Kgm
GW/CTN. (Approx.)	8.0 Kgm	9.0 Kgm	11.0 Kgm	11.0 Kgm
Carton Size (mm)	397 × 397 × 479	397 × 397 × 479	397 × 397 × 479	397 × 397 × 479

## ► Box & Packing

### Dimensions of Ammo Box Axial Lead Type (TCAL)

Sym.	Dimensions	Sym.	Dimensions	Sym.	Dimensions
A	74.00 ± 0.30	B	108.00 ± 0.30	C	260.00 ± 0.30
A'	48.00 ± 0.30	B'	105.00 ± 0.30	C'	255.00 ± 0.30



Axial Lead Type (TCAL) Dimensions of Ammo Box

### Packing Unit for Box Axial Lead Type (TCAL)

Item	TCAL0204	TCAL0307	TCAL0410	TCAL0510
Q' TY / Ammo Box	3,000 PCS	3,000 PCS	2,000 PCS	1,500 PCS
GW / Box(Approx.)	0.8 KGM	0.9 KGM	1.0 KGM	0.7 KGM
Q' TY / CTN.	30,000 PCS	30,000 PCS	20,000 PCS	10,000 PCS
NW / CTN. (Approx.)	6.0 Kgm	7.0 Kgm	8.0 Kgm	5.0 Kgm
GW / CTN.(Approx.)	8.0 Kgm	9.0 Kgm	10.0 Kgm	7.0 Kgm

## ► Packing Unit for Bulk

### Packing Unit for Bulk Axial Lead Type (TCAL)

Item	TCAL0204	TCAL0307	TCAL0410	TCAL0510
Q' TY / Bag	1,000 PCS	1,000 PCS	1,000 PCS	500 PCS
GW / Bag (Approx.)	0.1 Kgm	0.15 Kgm	0.3 Kgm	0.3 Kgm



### ▶ How to Select a fixed inductor

#### How to select a fixed inductor

Perfectly, inductors should have zero resistance and capacitance. This is not practically possible, as the conducting copper wires, used for through hole inductors, have small internal resistance.

#### Important criteria for the selection are:

- **Inductance Range (H):**  
The rated inductance range of the inductor. This is designated by  $\pm 10\%$  of the inductance.
- **Quality Factor (Q):**  
The Q value of an inductor is a measure of the relative losses in an inductor. The Q is also known as the "quality factor" and is technically defined as the ratio of inductive reactance to effective resistance.
- **Self-Resonant Frequency (SRF):**  
The frequency at which the inductor's distributed capacitance resonates with the inductance. It is at this frequency that the inductance is equal to the capacitance and they cancel each other. The inductor will act purely resistive with a high impedance at the SRF point.
- **Permissible DC Current:**  
Measured in Ohms, it is the maximum DC current that the inductor should be exposed to.



## TCAL0204 Characteristics

### Characteristics (TCAL0204)

Part Number	Inductance( $\mu$ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR( $\Omega$ )(max)	IDC(mA)(max)
TCAL**0204-R22M	0.22 $\pm$ 20%	40	25.2	175	0.20	705
TCAL**0204-R27M	0.27 $\pm$ 20%	40	25.2	160	0.22	670
TCAL**0204-R33M	0.33 $\pm$ 20%	40	25.2	150	0.24	645
TCAL**0204-R39M	0.39 $\pm$ 20%	50	25.2	150	0.27	605
TCAL**0204-R47M	0.47 $\pm$ 20%	50	25.2	150	0.30	575
TCAL**0204-R56M	0.56 $\pm$ 20%	50	25.2	150	0.34	540
TCAL**0204-R68M	0.68 $\pm$ 20%	50	25.2	150	0.38	510
TCAL**0204-R82M	0.82 $\pm$ 20%	50	25.2	150	0.43	480
TCAL**0204-1R0K	1.0 $\pm$ 10%	50	25.2	150	0.46	465
TCAL**0204-1R2K	1.2 $\pm$ 10%	50	7.96	110	0.52	435
TCAL**0204-1R5K	1.5 $\pm$ 10%	50	7.96	80	0.57	415
TCAL**0204-1R8K	1.8 $\pm$ 10%	50	7.96	66	0.60	405
TCAL**0204-2R2K	2.2 $\pm$ 10%	50	7.96	60	0.65	390
TCAL**0204-2R7K	2.7 $\pm$ 10%	50	7.96	54	0.73	370
TCAL**0204-3R3K	3.3 $\pm$ 10%	50	7.96	48	0.82	345
TCAL**0204-3R9K	3.9 $\pm$ 10%	50	7.96	44	0.90	330
TCAL**0204-4R7K	4.7 $\pm$ 10%	50	7.96	38	1.00	315
TCAL**0204-5R6K	5.6 $\pm$ 10%	50	7.96	34	1.10	300
TCAL**0204-6R8K	6.8 $\pm$ 10%	50	7.96	30	1.20	285
TCAL**0204-8R2K	8.2 $\pm$ 10%	50	7.96	26	1.30	275
TCAL**0204-100K	10 $\pm$ 10%	50	7.96	24	1.40	265
TCAL**0204-120K	12 $\pm$ 10%	50	2.52	22	1.50	255
TCAL**0204-150K	15 $\pm$ 10%	50	2.52	20	1.65	245
TCAL**0204-180K	18 $\pm$ 10%	50	2.52	18	1.90	225
TCAL**0204-220K	22 $\pm$ 10%	50	2.52	17	2.20	210
TCAL**0204-270K	27 $\pm$ 10%	50	2.52	16	2.50	200
TCAL**0204-330K	33 $\pm$ 10%	50	2.52	14	3.80	160
TCAL**0204-390K	39 $\pm$ 10%	50	2.52	13	4.20	150
TCAL**0204-470K	47 $\pm$ 10%	50	2.52	12	4.60	145
TCAL**0204-560K	56 $\pm$ 10%	40	2.52	11	5.10	140
TCAL**0204-680K	68 $\pm$ 10%	40	2.52	10	5.60	130
TCAL**0204-820K	82 $\pm$ 10%	40	2.52	9.5	9.60	100
TCAL**0204-101K	100 $\pm$ 10%	40	2.52	8.0	10.8	95
TCAL**0204-121K	120 $\pm$ 10%	40	0.796	6.5	12.5	85
TCAL**0204-151K	150 $\pm$ 10%	40	0.796	6.0	14.5	80
TCAL**0204-181K	180 $\pm$ 10%	40	0.796	5.5	16.3	75
TCAL**0204-221K	220 $\pm$ 10%	40	0.796	5.0	20.0	70



## TCAL0307 Characteristics

### Characteristics (TCAL0307)

Part Number	Inductance( $\mu$ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR( $\Omega$ )(max)	IDC(mA)(max)
TCAL**0307-R22M	0.22 $\pm$ 20%	30	25.2	380	0.075	1150
TCAL**0307-R27M	0.27 $\pm$ 20%	30	25.2	360	0.08	1110
TCAL**0307-R33M	0.33 $\pm$ 20%	30	25.2	350	0.08	1110
TCAL**0307-R39M	0.39 $\pm$ 20%	30	25.2	320	0.09	1000
TCAL**0307-R47M	0.47 $\pm$ 20%	30	25.2	300	0.10	1000
TCAL**0307-R56M	0.56 $\pm$ 20%	30	25.2	280	0.11	950
TCAL**0307-R68M	0.68 $\pm$ 20%	30	25.2	250	0.12	900
TCAL**0307-R82M	0.82 $\pm$ 20%	30	25.2	200	0.12	900
TCAL**0307-1R0K	1.0 $\pm$ 10%	40	25.2	180	0.15	815
TCAL**0307-1R2K	1.2 $\pm$ 10%	40	7.96	165	0.18	740
TCAL**0307-1R5K	1.5 $\pm$ 10%	40	7.96	150	0.20	700
TCAL**0307-1R8K	1.8 $\pm$ 10%	50	7.96	125	0.23	655
TCAL**0307-2R2K	2.2 $\pm$ 10%	50	7.96	110	0.25	630
TCAL**0307-2R7K	2.7 $\pm$ 10%	50	7.96	95	0.28	595
TCAL**0307-3R3K	3.3 $\pm$ 10%	50	7.96	70	0.30	575
TCAL**0307-3R9K	3.9 $\pm$ 10%	45	7.96	65	0.32	555
TCAL**0307-4R7K	4.7 $\pm$ 10%	45	7.96	50	0.35	530
TCAL**0307-5R6K	5.6 $\pm$ 10%	45	7.96	40	0.40	500
TCAL**0307-6R8K	6.8 $\pm$ 10%	40	7.96	30	0.45	470
TCAL**0307-8R2K	8.2 $\pm$ 10%	40	7.96	28	0.55	425
TCAL**0307-100K	10 $\pm$ 10%	40	7.96	22	0.72	370
TCAL**0307-120K	12 $\pm$ 10%	40	2.52	20	0.80	350
TCAL**0307-150K	15 $\pm$ 10%	50	2.52	16	0.88	335
TCAL**0307-180K	18 $\pm$ 10%	50	2.52	15	1.00	315
TCAL**0307-220K	22 $\pm$ 10%	50	2.52	13	1.20	285
TCAL**0307-270K	27 $\pm$ 10%	50	2.52	11	1.35	270
TCAL**0307-330K	33 $\pm$ 10%	50	2.52	10	1.50	255
TCAL**0307-390K	39 $\pm$ 10%	50	2.52	9.5	1.70	240
TCAL**0307-470K	47 $\pm$ 10%	60	2.52	8.5	2.30	205
TCAL**0307-560K	56 $\pm$ 10%	60	2.52	7.5	2.60	195
TCAL**0307-680K	68 $\pm$ 10%	60	2.52	6.5	2.90	185
TCAL**0307-820K	82 $\pm$ 10%	60	2.52	6.0	3.20	175
TCAL**0307-101K	100 $\pm$ 10%	60	2.52	5.5	3.50	165
TCAL**0307-121K	120 $\pm$ 10%	60	0.796	5.4	3.80	160
TCAL**0307-151K	150 $\pm$ 10%	60	0.796	4.75	4.40	150
TCAL**0307-181K	180 $\pm$ 10%	60	0.796	4.35	5.00	140
TCAL**0307-221K	220 $\pm$ 10%	60	0.796	4.0	5.70	130
TCAL**0307-271K	270 $\pm$ 10%	60	0.796	3.7	6.50	120
TCAL**0307-331K	330 $\pm$ 10%	60	0.796	3.4	9.50	100
TCAL**0307-391K	390 $\pm$ 10%	60	0.796	2.8	10.5	95
TCAL**0307-471K	470 $\pm$ 10%	60	0.796	2.55	11.6	90
TCAL**0307-561K	560 $\pm$ 10%	60	0.796	2.35	13.0	85
TCAL**0307-681K	680 $\pm$ 10%	60	0.796	2.0	18.0	75
TCAL**0307-821K	820 $\pm$ 10%	60	0.796	1.5	23.0	65
TCAL**0307-102K	1000 $\pm$ 10%	60	0.796	1.2	26.0	60

## TCAL0410 Characteristics

### Characteristics (TCAL0410)

Part Number	Inductance( $\mu$ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR( $\Omega$ )(max)	IDC(mA)(max)
TCAL**0410-R22M	0.22 $\pm$ 20%	25	25.2	380	0.21	880
TCAL**0410-R27M	0.27 $\pm$ 20%	25	25.2	340	0.24	800
TCAL**0410-R33M	0.33 $\pm$ 20%	25	25.2	300	0.28	750
TCAL**0410-R39M	0.39 $\pm$ 20%	25	25.2	280	0.32	680
TCAL**0410-R47M	0.47 $\pm$ 20%	25	25.2	250	0.36	650
TCAL**0410-R56M	0.56 $\pm$ 20%	25	25.2	230	0.41	600
TCAL**0410-R68M	0.68 $\pm$ 20%	25	25.2	210	0.47	550
TCAL**0410-R82M	0.82 $\pm$ 20%	45	25.2	172	0.17	980
TCAL**0410-1R0K	1.0 $\pm$ 10%	45	25.2	157	0.19	920
TCAL**0410-1R2K	1.2 $\pm$ 10%	50	7.96	144	0.21	880
TCAL**0410-1R5K	1.5 $\pm$ 10%	50	7.96	131	0.23	830
TCAL**0410-1R8K	1.8 $\pm$ 10%	55	7.96	121	0.25	790
TCAL**0410-2R2K	2.2 $\pm$ 10%	55	7.96	110	0.28	750
TCAL**0410-2R7K	2.7 $\pm$ 10%	60	7.96	100	0.30	720
TCAL**0410-3R3K	3.3 $\pm$ 10%	60	7.96	94	0.34	670
TCAL**0410-3R9K	3.9 $\pm$ 10%	60	7.96	86	0.37	640
TCAL**0410-4R7K	4.7 $\pm$ 10%	60	7.96	80	0.39	620
TCAL**0410-5R6K	5.6 $\pm$ 10%	60	7.96	74	0.43	590
TCAL**0410-6R8K	6.8 $\pm$ 10%	60	7.96	68	0.48	550
TCAL**0410-8R2K	8.2 $\pm$ 10%	60	7.96	53	0.52	530
TCAL**0410-100K	10 $\pm$ 10%	60	7.96	45	0.58	500
TCAL**0410-120K	12 $\pm$ 10%	60	2.52	34	0.63	480
TCAL**0410-150K	15 $\pm$ 10%	60	2.52	20	0.72	460
TCAL**0410-180K	18 $\pm$ 10%	60	2.52	14	0.77	430
TCAL**0410-220K	22 $\pm$ 10%	60	2.52	9.9	0.84	410
TCAL**0410-270K	27 $\pm$ 10%	50	2.52	7.6	0.94	390
TCAL**0410-330K	33 $\pm$ 10%	50	2.52	6.3	1.03	370
TCAL**0410-390K	39 $\pm$ 10%	50	2.52	6.3	1.12	350
TCAL**0410-470K	47 $\pm$ 10%	50	2.52	6.3	1.22	340
TCAL**0410-560K	56 $\pm$ 10%	40	2.52	6.2	1.34	320
TCAL**0410-680K	68 $\pm$ 10%	40	2.52	5.7	1.47	305
TCAL**0410-820K	82 $\pm$ 10%	35	2.52	5.3	1.62	290
TCAL**0410-101K	100 $\pm$ 10%	35	2.52	4.8	1.80	275
TCAL**0410-121K	120 $\pm$ 10%	60	0.796	3.8	3.70	185
TCAL**0410-151K	150 $\pm$ 10%	60	0.796	3.5	4.20	175
TCAL**0410-181K	180 $\pm$ 10%	60	0.796	3.3	4.60	165
TCAL**0410-221K	220 $\pm$ 10%	60	0.796	3.0	5.10	155
TCAL**0410-271K	270 $\pm$ 10%	60	0.796	2.8	5.80	145
TCAL**0410-331K	330 $\pm$ 10%	60	0.796	2.6	6.40	137
TCAL**0410-391K	390 $\pm$ 10%	60	0.796	2.4	7.00	133
TCAL**0410-471K	470 $\pm$ 10%	60	0.796	2.25	7.70	126
TCAL**0410-561K	560 $\pm$ 10%	60	0.796	2.1	8.50	120
TCAL**0410-681K	680 $\pm$ 10%	55	0.796	1.95	9.40	113
TCAL**0410-821K	820 $\pm$ 10%	55	0.796	1.85	10.5	100
TCAL**0410-102K	1000 $\pm$ 10%	50	0.796	1.4	14.0	100

## TCAL0510 Characteristics

### Characteristics (TCAL0510)

Part Number	Inductance( $\mu$ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR ( $\Omega$ )(max)	RDC(mA)(max)
TCAL**0510-R56M	0.56 $\pm$ 10%	50	25.2	280	0.14	1150
TCAL**0510-R68K	0.68 $\pm$ 10%	50	25.2	250	0.15	1100
TCAL**0510-R82M	0.82 $\pm$ 10%	50	25.2	220	0.22	900
TCAL**0510-1R0K	1.0 $\pm$ 10%	50	25.2	200	0.29	785
TCAL**0510-1R2K	1.2 $\pm$ 10%	33	7.96	180	0.42	650
TCAL**0510-1R5K	1.5 $\pm$ 10%	33	7.96	160	0.50	600
TCAL**0510-1R8K	1.8 $\pm$ 10%	33	7.96	150	0.65	525
TCAL**0510-2R2K	2.2 $\pm$ 10%	33	7.96	135	0.95	435
TCAL**0510-2R7K	2.7 $\pm$ 10%	33	7.96	120	1.5	385
TCAL**0510-3R3K	3.3 $\pm$ 10%	33	7.96	110	2.0	300
TCAL**0510-3R9K	3.9 $\pm$ 10%	33	7.96	100	2.3	280
TCAL**0510-4R7K	4.7 $\pm$ 10%	33	7.96	90	2.8	260
TCAL**0510-5R6K	5.6 $\pm$ 10%	45	7.96	60	0.32	495
TCAL**0510-6R8K	6.8 $\pm$ 10%	45	7.96	55	0.5	395
TCAL**0510-8R2K	8.2 $\pm$ 10%	45	7.96	50	0.6	360
TCAL**0510-100K	10 $\pm$ 10%	45	7.96	45	0.9	290
TCAL**0510-120K	12 $\pm$ 10%	60	2.52	42	1.2	265
TCAL**0510-150K	15 $\pm$ 10%	65	2.52	40	1.7	240
TCAL**0510-180K	18 $\pm$ 10%	65	2.52	34	2.3	185
TCAL**0510-220K	22 $\pm$ 10%	65	2.52	30	2.6	175
TCAL**0510-270K	27 $\pm$ 10%	45	2.52	25	2.0	170
TCAL**0510-330K	33 $\pm$ 10%	45	2.52	19	2.3	165
TCAL**0510-390K	39 $\pm$ 10%	45	2.52	15	2.5	165
TCAL**0510-470K	47 $\pm$ 10%	45	2.52	14	2.6	165
TCAL**0510-560K	56 $\pm$ 10%	50	2.52	12	3.0	164
TCAL**0510-680K	68 $\pm$ 10%	50	2.52	11	3.3	156
TCAL**0510-820K	82 $\pm$ 10%	50	2.52	10	3.9	143
TCAL**0510-101K	100 $\pm$ 10%	50	2.52	9	4.5	133
TCAL**0510-121K	120 $\pm$ 10%	60	0.796	8.5	5.2	124
TCAL**0510-151K	150 $\pm$ 10%	40	0.796	7.8	6.18	114
TCAL**0510-181K	180 $\pm$ 10%	60	0.796	7.0	6.8	108
TCAL**0510-221K	220 $\pm$ 10%	60	0.796	6.2	7.5	103
TCAL**0510-271K	270 $\pm$ 10%	60	0.796	5.6	8.2	103
TCAL**0510-331K	330 $\pm$ 10%	60	0.796	5.0	9.1	102
TCAL**0510-391K	390 $\pm$ 10%	60	0.796	4.5	10	102
TCAL**0510-471K	470 $\pm$ 10%	60	0.796	4.0	11	100
TCAL**0510-561K	560 $\pm$ 10%	60	0.796	3.6	12.3	85
TCAL**0510-681K	680 $\pm$ 10%	60	0.796	3.6	13.7	81
TCAL**0510-821K	820 $\pm$ 10%	60	0.796	1.32	3.1	180
TCAL**0510-102K	1000 $\pm$ 10%	60	0.796	1.25	4.1	156

## Order Codes

### Order Codes (TCAL)

TCAL	N		TR		0204		-	R10		M	
Part Number	Form		Package		Size			Inductance		Tolerance	
TCAL	N	Normal Form	P	Bulk	0204	2.8×5.0mm		R10	0.10μH	J	5%
	S	Short Form	TR	Taping Reel	0307	3.0×7.0mm		1R0	1.00μH	K	10%
	F	F Forming			0410	4.0×10.0mm		100	10.00μH	M	20%
	U	U Forming	TB	Taping Box	0510	5.0×10.0mm		101	100.00μH		
	P	Pana Forming without coating of lead wire				102	1000.00μH				
	PC	Pana Forming with coating of lead wire									

**► General Information****Leading-Edge Technology**

Token Electronics brand passive component specializes in standard and custom solutions offering the latest in state-of-the-art low profile high power density inductor components. Token provides cost-effective, comprehensive solutions that meet the evolving needs of technology-driven markets. In working closely with the industry leaders in chipset and core development, we remain at the forefront of innovation and new technology to deliver the optimal mix of packaging, high efficiency and unbeatable reliability. Our designs utilize high frequency, low core loss materials, new and custom core shapes in combination with innovative construction and packaging to provide designers with the highest performance parts available on the market.

**Find Inductor Solutions Faster**

**Find Your Inductor** - wt.moc.nekot@qfr

Only timely and accurate information can help manage the changing needs of your customers. The Token Inductor Finder puts you only a click away from all of the inductor information you need.

**Find Your Solution** - wt.moc.nekot@qfr

Selecting the correct inductor solution will not only save you time, but it will give you a competitive edge. At Token, we are committed to helping you find the most efficient alternative for your power design. Our inductor and power supply design experts can help you make that selection.

Please forward us:

- A brief description of your particular application's requirements.
- Details of an existing solution that you'd like to replace, enhance or find an alternative.
- Inquiries for feasibility to tailor a power transformer or inductor to your specific application.

We can also help you with any additional technical information you might need relating to any of our products.

**Ask Us Today**

