



Inductor / Coil / Choke / Transformer

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Notice: Specification Changed or Version Updated will be posted at irregular intervals.
All Updated and Final Specifications, Please Confirm with TOKEN ELECTRONICS REPRESENTATIVES.



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Inductor

Through Hole Gap Toroidal coils

▶ Inductor Features

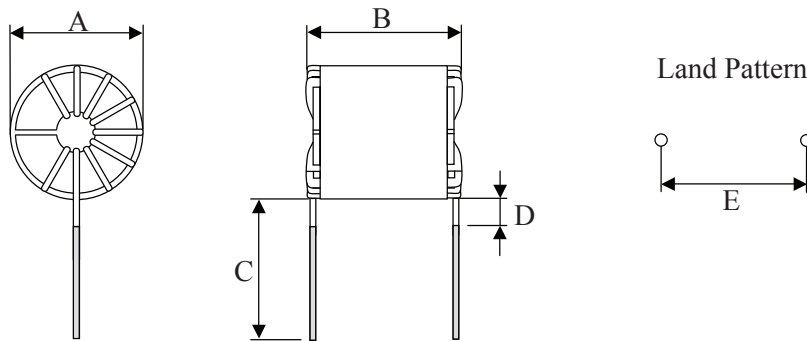
- Micro gap toroid technology.
- Not easy magnetic saturation.

▶ Applications

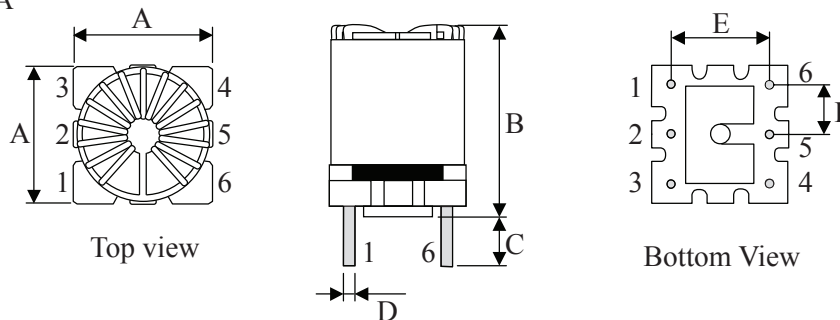
- VCD, DVD.

▶ Toroidal Coil Configurations & Dimensions (unit: mm)

TC19



TC19A



Type	A	B	C	D	E	F
TC19	10.0 (Ref.)	11.5 (Ref.)	15.0 ± 5.0	2.0 (max)	11.0	-
TC19A	11.0 (Ref.)	15.0 (Ref.)	3.5 ± 1.0	0.6 ± 0.05	7.0 ± 0.5	3.5 ± 0.5

Note: Design as Customer's Requested Specifications.

▶ Toroidal Coil Electrical Characteristics

Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TC19	19.5	100	0.093	3.00
TC19A	19.5	100	0.093	3.00

Note: Test Freq.: 100KHz / 0.1V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.

▶ How to Order

TC19

①

① Power Inductor Through Hole Gap Toroidal Coils: TC19, TC19A



Inductor

TCTK 4452/5052/6852/8052 Series - Toroidal Coils Inductor

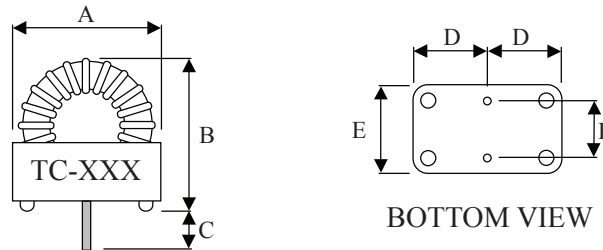
▶ Toroidal Coils Inductor Features

- Closed magnetic circuit for lowest EMI
- Low cost , High current
- Lowest EMI

▶ Applications

Copying Machine, Display Monitor, ADSL Modem, Gaming Machine, Color TV, Video Camera, Air Conditioner, Refrigerator, Laundry Machine, Microwave Oven and Car Electronics, etc..

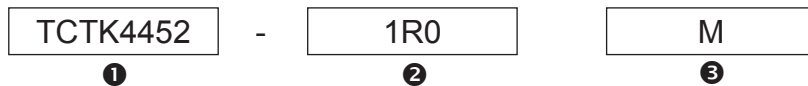
▶ Configurations & Dimensions (unit: mm) - Toroidal Coils Inductor



Type	A± 0.5	B(max)	C ± 1.0	D (ref.)	E ± 0.05	F± 0.05
TCTK4452	14.7	17.0	5.0	7.35	8.6	5.6
TCTK5052	16.5	18.0	5.0	8.25	11.4	7.6
TCTK6852	21.0	25.0	5.0	10.50	11.4	7.6
TCTK8052	24.1	27.5	5.0	12.05	15.2	11.4

Note: Design as Customer's Requested Specifications

▶ How to Order



① Power Inductor Toroidal Coil: TCTK4452 ,TCTK5052 ,TCTK6852

② Inductance

③ Tolerance

Code	Tolerance
K	10%
L	15%
M	20%
N	30%
Y	min



Inductor

Low Loss Powdered Iron Cores, Low EMI Toroidal Coils - TCTC Series

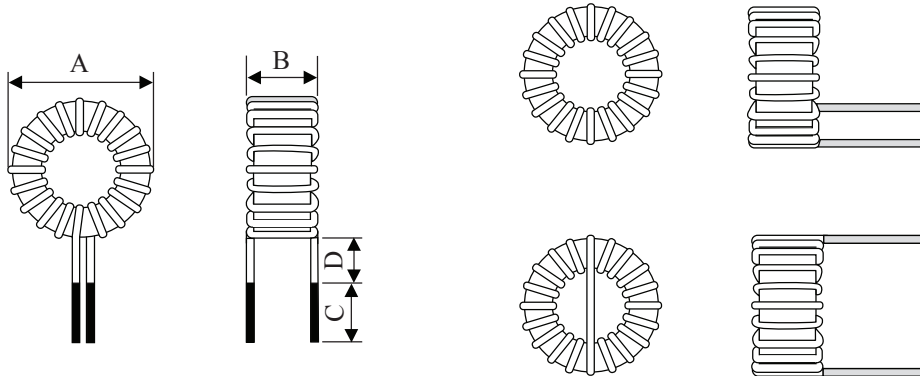
► Features

Low cost , High current.
Lowest EMI .

► Applications

Copying Machine, Display Monitor, ADSL Modem, Gaming Machine, Color TV, Video Camera,
Air Conditioner, Refrigerator, Laundry Machine, Microwave Oven and Car Electronics, etc..

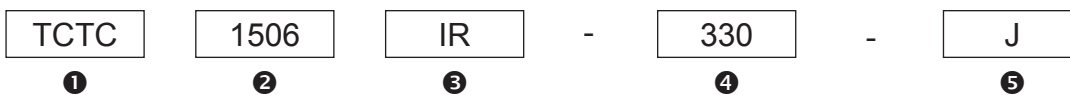
► Configurations & Dimensions (unit: mm) - Toroidal Coil



Part Number	Dimensions (mm)					Turns	Inductance L (μH)	RDC (mΩ)
	A max.	B max.	C max.	D max.	Wire Dia.			
TCTC1005IR-330-J	12.0	7.0	25.0	3.0	Φ0.4	25	33	59
TCTC1104IR-300-J	13.5	7.5	25.0	3.0	Φ0.4	25	30	62
TCTC1305IR-330-J	15.5	8.5	25.0	3.0	Φ0.4	28	33	71
TCTC1306IR-300-J	17.0	9.5	25.0	3.0	Φ0.6	26	30	30
TCTC1506IR-330-J	19.0	10.0	25.0	3.0	Φ0.6	24	33	40
TCTC1806IR-390-J	21.0	10.0	25.0	3.0	Φ0.6	25	39	33
TCTC2006IR-430-J	25.0	11.0	25.0	3.0	Φ0.8	29	43	31
TCTC2310IR-960-J	27.0	13.5	25.0	3.0	Φ0.8	30	96	42
TCTC2711IR-121-J	32.0	17.0	25.0	3.0	Φ1.0	30	120	37
TCTC3311IR-141-J	40.0	17.0	25.0	3.0	Φ1.0	40	140	37

Note: Design as Customer's Requested Specifications.

► How to Order



① Toroidal Coils: TCTC

② Core Size

③ Core Type

④ Inductance

Code	Inductance
330	33μH
121	120μH

⑤ Material



Inductor

Air Core Coils Inductor Through Hole - AC Series

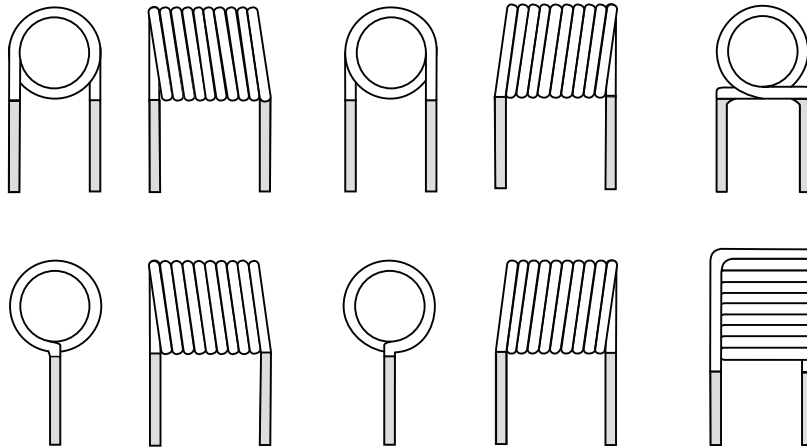
▶ Air Core Coils Features

- High frequency
- High Q values

▶ Applications

Set up box, CATV & Electronic Products.

▶ Configurations - Air Core Coils Inductor



Note: Design as Customer's Requested Specifications.

▶ How to Order

$$\boxed{\text{TCAC}}_{\text{①}} - \boxed{\text{R}}_{\text{②}} - \boxed{0.8}_{\text{③}} \times \boxed{3.1}_{\text{④}} \times \boxed{8.5}_{\text{⑤}}$$

① Air Core Coils : TCAC

② Type of Winding

Code	Type of Winding
R	Clockwise winding
L	Counter clockwise winding

③ Wire Diameter (mm)

④ Inner Diameter (mm)

⑤ Number of Turns



Inductor

Fixed Inductor - LGA Series

Fixed Inductor Features

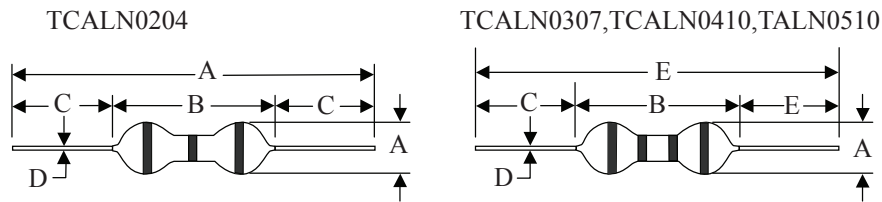
Coating epoxy resin that ensures the humidity resistance to be long life.
Low Cost.

Applications

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

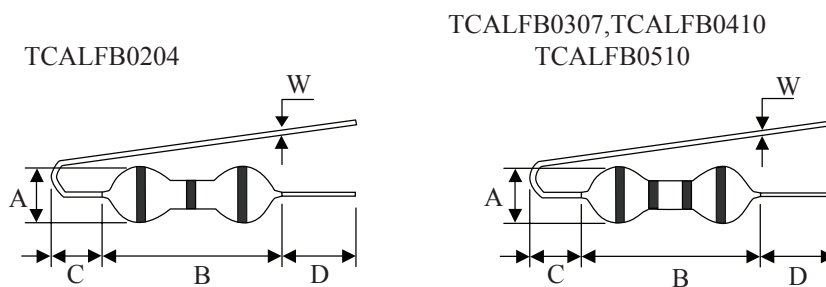
Configurations & Dimensions - Fixed Inductor

(1) Normal Form & Short Form



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

(2) F Forming

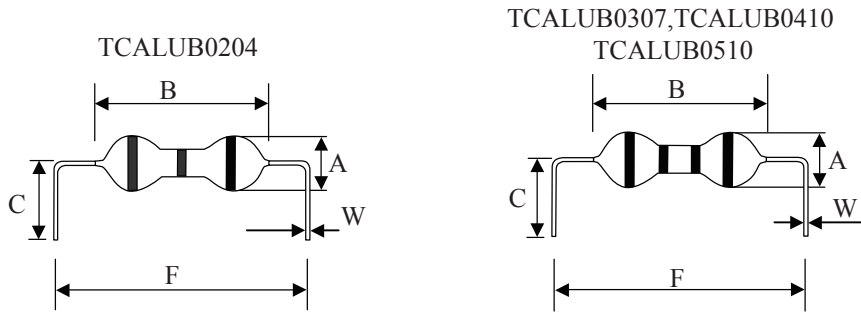


Sym.	TCALFB0204	TCALFB0307	TCALFB0410	TCALFB0510
A (max)	2.80	3.00	4.00	5.00
B (max)	5.00	7.00	10.00	10.00
C (max)	6.00	6.00	6.00	6.00
D (min)	3.60	3.60	4.00	4.00
$W \pm 0.05$	0.50Φ	0.50Φ	0.65Φ	0.65Φ



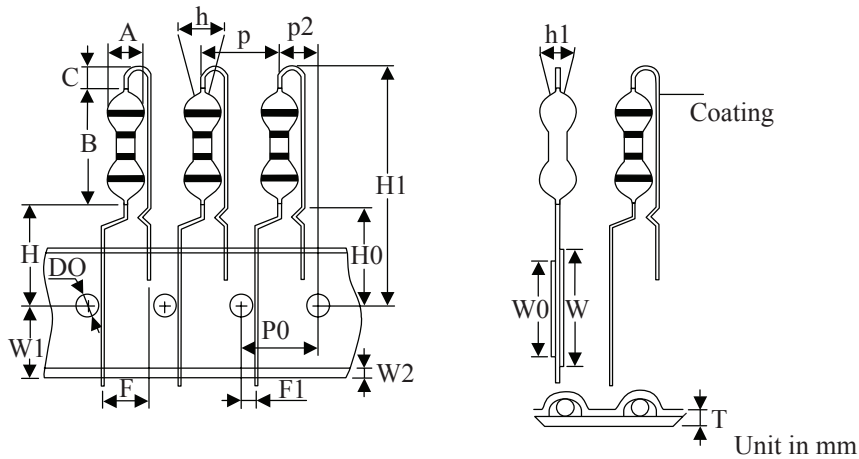
Inductor

(3) U Forming



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

(4) Pana Forming for 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)



Inductor

Electrical Characteristics for TCAL0204 Series Fixed Inductor

Part Number	Inductance(μ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR(Ω)(max)	RDC(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





Inductor

► Electrical Characteristics for TCAL0307 Series Fixed Inductor

Part Number	Inductance(μ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR(Ω)(max)	RDC(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





Inductor

Electrical Characteristics for TCAL0410 Series Inductor

Part Number	Inductance(μ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR(Ω)(max)	RDC(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





Inductor

► Electrical Characteristics for TCAL0510 Series Inductor

Part Number	Inductance(μ H)	Q(min)	Freq.(MHz)	SRF(MHz)(min)	DCR(Ω)(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

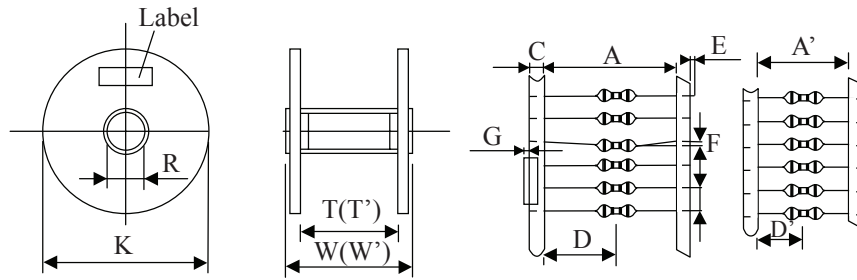




Inductor

► Packaging Specifications for Fixed Inductor (Axial Lead Type)

(1) Dimensions of Reel & Packing Unit



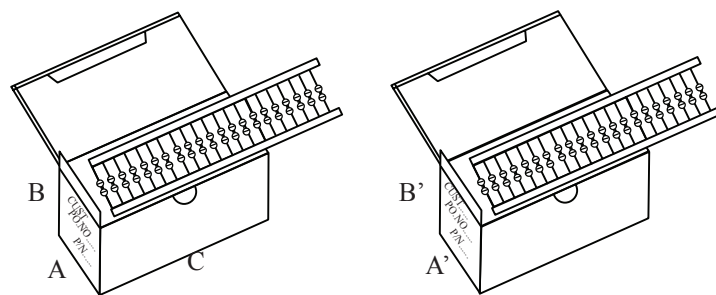
(A) Dimensions of Tape & Reel (unit: mm)

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		

(B) Packing Unit for Reel

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

(2) Dimensions of Box & Packing Unit



(A) Dimensions of Ammo Box (unit: mm)

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





Inductor

(B) Packing Unit for Box

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
Carton Size (mm)	438 × 295 × 270	438 × 295 × 270	438 × 295 × 270	438 × 295 × 270

(3) Packing Unit for Bulk

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 Order

TCAL	N	T	0204	-	R10	M
①	②	③	④		⑤	⑥

① Fixed Inductor (Axial Lead Type)

② Form

Code	Form
N	Normal Form
S	Short Form
F	F Forming
U	U Forming
P	Pana Forming without coating of lead wire
PC	Pana Forming with coating of lead wire

③ Packing

Code	Packing
P	Bulk
TB	Tapping Box
T	Tapping Reel

④ Size : 0204, 0307, 0410, 0510

⑤ Inductance

Code	Inductance
R10	0.10 μ H
1R0	1.00 μ H
100	10.00 μ H
101	100.00 μ H
102	1000.00 μ H

⑥ Tolerance

Code	Tolerance
J	5%
K	10%
M	20%



Inductor

Low DCR - TCLP/TCVP Series Power Inductors

► Inductor Features

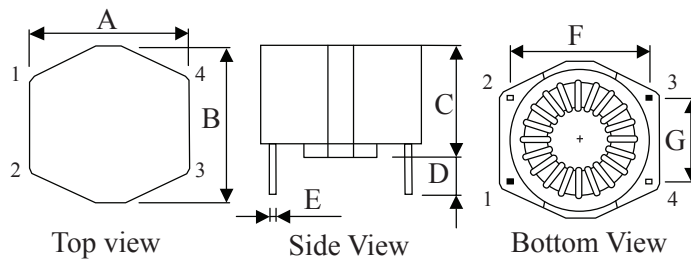
high saturation for surface mounting.
Large Current and Low DCR.

► Applications

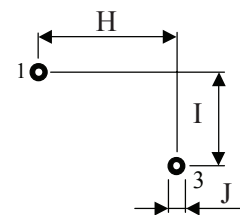
TV BOX
Power supply applications
Output Ripple Current Filter

► Configurations & Dimensions (unit: mm) - Low Power Inductors

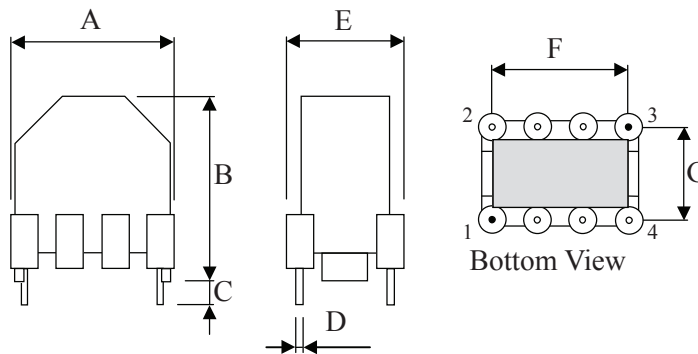
TCLP



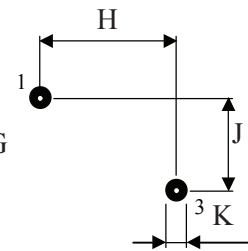
Land Pattern



TCVP



Land Pattern



Type	A(max)	B(max)	C	D	E	F	G	H	I	J
TCLP	18.03	18.03	13.0(max)	4.0 ± 1.0	0.64 ± 0.2	15.3 ± 0.5	10.2 ± 0.5	15.3	10.2	1.78
TCVP	19.00	21.00	4.0 ± 1.0	0.7 ± 0.3	14.0(max)	15.0 ± 0.5	10.0 ± 0.5	15.0	10.0	1.78

Note: Design as Customer's Requested Specifications.

► Electrical Characteristics for TCLP/VP Series - Low Power Inductors

Part Number	Inductance(μH)	Test Freq.(KHz)	L@IDC(μH)(min)	DCR (Ω)(max)	IDC (A)(max)
TC*P - 60E - 151M	150	100	125	0.210	1.70
TC*P - 60E - 221M	220	100	180	0.250	1.50
TC*P - 60E - 331M	330	100	280	0.480	1.00
TC*P - 60E - 471M	470	100	400	0.660	0.90
TC*P - 60E - 681M	680	100	590	0.930	0.85
TC*P - 60E - 821M	820	100	700	1.300	0.75
TC*P - 60E - 102M	1000	100	930	1.600	0.50



Inductor

► How to Order

1 - - **4**

1 Power Inductor: TCLP, TCVP

2 Core Material

3 Inductance

Code	Inductance
151	(150 μ H)
471	(470.00 μ H)
102	(1000.00 μ H)

4 Tolerance

Code	Tolerance
M	20%
N	30%



Inductor

PC Series - Power Inductor Choke

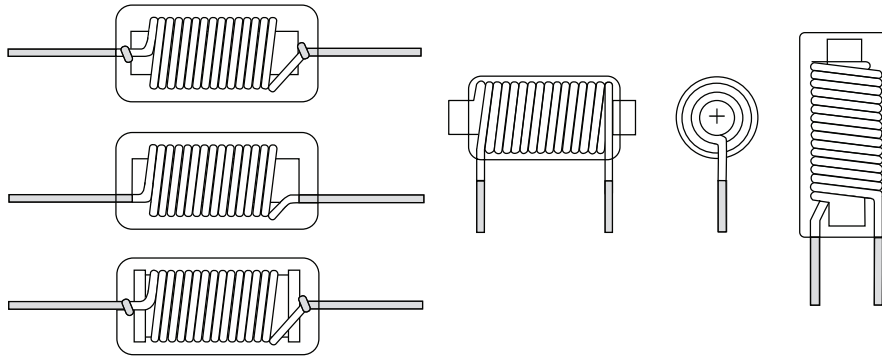
▶ Choke Features

High rated current for High current circuits.
Have lot of dimensions to choose.

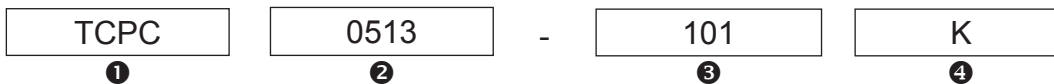
▶ Applications

Switching Regulators, Power amplifiers,
Power Suppliers, Typewriter, Car Electronics, etc..

▶ Configurations & Dimensions - Power Inductor Choke



▶ How to Order



① Power Inductor Choke: TCPC

② Core Dimension: Outside Diameter & Height

③ Inductance

④ Tolerance

Code	Tolerance
J	5%
K	10%
L	15%
M	20%
N	30%
Y	min



Inductor

TC1213/1213A/1213B Series - Power Inductor THT

Power Inductor Features

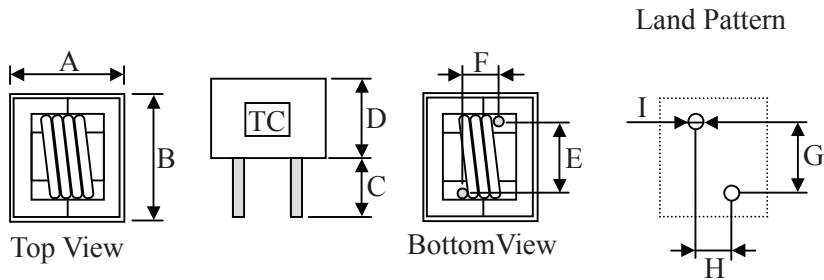
Large Current and Low DCR.

Applications

Mother Board of PC.

Mother Board of Notebook.

Configurations & Dimensions (unit: mm) - Power Inductor THT



Type	A(max)	B(max)	C ± 1.0	D(max)	E(Ref.)	F(Ref.)	G	H	I
TC1213	14.0	14.5	5.0	9.5	7.0	5.0	7.5	5.5	1.8
TC1213A	14.0	14.5	5.0	9.5	7.0	5.0	7.5	5.5	1.8
TC1213B	14.5	14.5	5.0	9.5	7.0	5.0	7.5	5.5	1.8

Note: Design as Customer's Requested Specifications.

Electrical Characteristics - Power Inductor THT

Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	Peak Current (A) (max)	Irms (A)(max)
TC1213 - R68N	0.68	100	0.0015	40.00	20.00
TC1213A - R33N	0.33	100	0.0015	40.00	20.00
TC1213B - 1R0N	1.00	100	0.0015	35.00	20.00

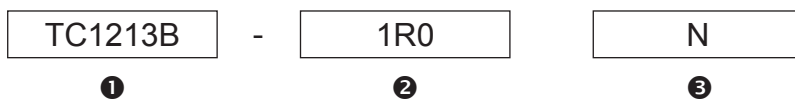
Note: Test Freq.: 100KHz / 0.1V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at Peak Current.

ΔT=40°C rise at I_{rms}.

How to Order



❶ Power inductor THT : TC1213, TC1213A, TC1213B

❷ Inductance

Code	Inductance
R68	0.68μH
1R0	1.00μH

❸ Tolerance

Code	Tolerance
N	30%



Inductor

Choke Coils Inductor Through Hole Common Mode - TCB7T Series

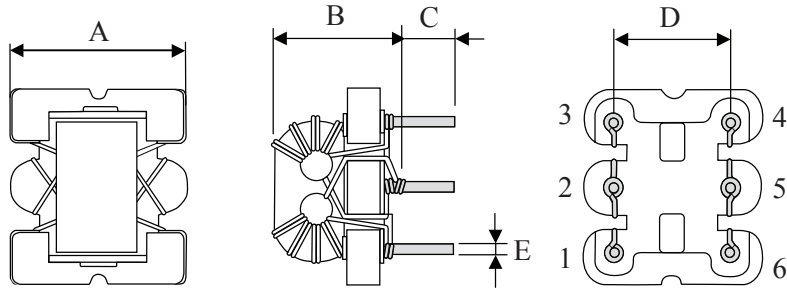
▶ Choke Coils Common Mode Features

Pair wire coil for high stability.

▶ Applications

Double balance mixers, broad-band transformers, impedance transformers, etc..

▶ Configurations & Dimensions (unit: mm) - Choke Coils Common Mode



Type	A(max)	B(max)	C ± 1.0	D ± 0.5	E ± 0.05
TCB7T	7.2	7.1	2.6	4.5	0.5

Note: Design as Customer's Requested Specifications

▶ Electrical Characteristics for TCB7T Series Choke Coils Common Mode

Part Number	Winding Turns	Operating Freq. Ranges (MHz)	Insertion Loss (dB)	Figure
Double balanced mixer				
TCB7T - 456DB1013	1	50 ~ 400	10dB(max)	1
TCB7T - 456DB1014	2	10 ~ 1.0 GHz	6dB(max)	1
TCB7T - 456DB1005	3	8 ~ 800	3.5dB(max)	1
TCB7T - 456DB1006	4	6 ~ 600	2.5dB(max)	1
TCB7T - 456DB1007	5	5 ~ 500	2dB(max)	1
TCB7T - 456DB1009	2	400 ~ 1.3 GHz	4dB(max)	1
Distributor				
TCB7T - 456DS1012	-	20 ~ 600	In to Out-1,2 4.5dB(max) Out-1 to Out-2 (Isolation)10dB(min)	2
Directional coupler				
TCB7T - 456PS1015	4	6 ~ 600	In to Out-1 1.3dB(max) In to Out-2 11dB-14dB	3
TCB7T - 456PS1016	5	6 ~ 600	In to Out-1 0.9dB(max) In to Out-2 13dB-16dB	3
TCB7T - 456PS1011	6	6 ~ 600	In to Out-1 0.8dB(max) In to Out-2 15dB-17dB	3



Inductor

► Choke Coils Common Mode Pin connections Diagram

Double Balanced Mixer

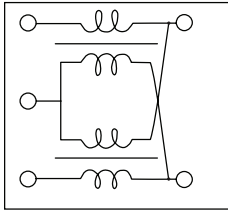


Fig. 1

Distributor

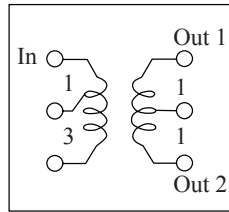


Fig. 2

Directional coupler

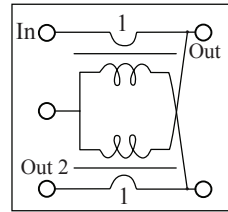


Fig. 3

► How to Order

TCB7T - 456DB1013
① ②

① Choke Coils Common Mode : TCB7T

② Type

Code	Type
456DB	Double balance mixer
456DS	Distributor
456PS	Directional coupler



Inductor

TCRB Radial Series - Choke Inductors

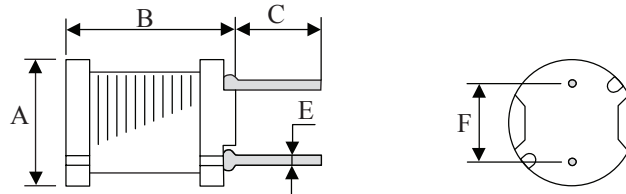
► Inductor Features

- Open Magnetic circuit construction
- Low cost and high reliability

► Applications

Notebook, Inkjet printer, Copying machine, Display monitor, Cellular phone, ADSL modem, Gaming machine, Color TV, Video tape recorder, Video camera, Microwave oven, Lighting and Car electronics.

► Configurations & Dimensions (unit: mm) - Choke Radial Inductors



Type	$\Phi A(\text{max})$	B(max)	C ± 1.0	E ± 0.05	F ± 0.5
TCRB0605	6.5	5.5	4.0	0.50	4.0
TCRB0606	6.5	6.5	4.0	0.50	4.0
TCRB0805	8.3	5.5	5.0	0.65	5.0
TCRB0807	8.3	7.5	5.0	0.65	5.0
TCRB0809	8.3	9.5	5.0	0.65	5.0

Note: Design as Customer's Requested Specifications.

► Electrical Characteristics for TCRB0605 Series - Choke Radial Inductors

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRB0605 - 220M	22.00	1	0.180	0.90
TCRB0605 - 270M	27.00	1	0.210	0.81
TCRB0605 - 330M	33.00	1	0.270	0.74
TCRB0605 - 390M	39.00	1	0.290	0.68
TCRB0605 - 470M	47.00	1	0.340	0.62
TCRB0605 - 560M	56.00	1	0.420	0.57
TCRB0605 - 680M	68.00	1	0.480	0.51
TCRB0605 - 820M	82.00	1	0.550	0.47
TCRB0605 - 101M	100.00	1	0.680	0.42
TCRB0605 - 121M	120.00	1	0.770	0.39
TCRB0605 - 151M	150.00	1	0.950	0.35
TCRB0605 - 181M	180.00	1	1.150	0.32
TCRB0605 - 221M	220.00	1	1.300	0.29
TCRB0605 - 271M	270.00	1	1.550	0.26
TCRB0605 - 331M	330.00	1	2.180	0.23
TCRB0605 - 391M	390.00	1	2.470	0.21
TCRB0605 - 471M	470.00	1	2.920	0.20
TCRB0605 - 561M	560.00	1	3.970	0.18
TCRB0605 - 681M	680.00	1	4.570	0.16
TCRB0605 - 821M	820.00	1	5.280	0.15
TCRB0605 - 102M	1000.00	1	7.060	0.13

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

Inductance drop = 10% typ. at IDC.





Inductor

► Electrical Characteristics for TCRB0606 Series - Choke Radial Inductors

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRB0606 - 220M	22.00	1	0.110	1.27
TCRB0606 - 270M	27.00	1	0.140	1.14
TCRB0606 - 330M	33.00	1	0.170	1.03
TCRB0606 - 390M	39.00	1	0.190	0.95
TCRB0606 - 470M	47.00	1	0.230	0.87
TCRB0606 - 560M	56.00	1	0.260	0.80
TCRB0606 - 680M	68.00	1	0.280	0.72
TCRB0606 - 820M	82.00	1	0.390	0.66
TCRB0606 - 101M	100.00	1	0.430	0.59
TCRB0606 - 121M	120.00	1	0.540	0.54
TCRB0606 - 151M	150.00	1	0.640	0.48
TCRB0606 - 181M	180.00	1	0.740	0.44
TCRB0606 - 221M	220.00	1	0.960	0.40
TCRB0606 - 271M	270.00	1	1.120	0.36
TCRB0606 - 331M	330.00	1	1.480	0.33
TCRB0606 - 391M	390.00	1	1.660	0.30
TCRB0606 - 471M	470.00	1	1.910	0.27
TCRB0606 - 561M	560.00	1	2.310	0.25
TCRB0606 - 681M	680.00	1	2.670	0.23
TCRB0606 - 821M	820.00	1	3.100	0.21
TCRB0606 - 102M	1000.00	1	4.450	0.19

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.



Inductor

► Electrical Characteristics for TCRB0805 Series - Choke Radial Inductors

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRB0805 - 100M	10.00	1	0.070	2.50
TCRB0805 - 120M	12.00	1	0.080	2.40
TCRB0805 - 150M	15.00	1	0.090	2.10
TCRB0805 - 180M	18.00	1	0.100	2.00
TCRB0805 - 220M	22.00	1	0.120	1.70
TCRB0805 - 270M	27.00	1	0.140	1.60
TCRB0805 - 330M	33.00	1	0.170	1.40
TCRB0805 - 390M	39.00	1	0.210	1.30
TCRB0805 - 470M	47.00	1	0.240	1.20
TCRB0805 - 560M	56.00	1	0.310	1.10
TCRB0805 - 680M	68.00	1	0.340	1.00
TCRB0805 - 820M	82.00	1	0.400	0.93
TCRB0805 - 101M	100.00	1	0.520	0.81
TCRB0805 - 121M	120.00	1	0.590	0.76
TCRB0805 - 151M	150.00	1	0.710	0.67
TCRB0805 - 181M	180.00	1	0.890	0.62
TCRB0805 - 221M	220.00	1	1.040	0.54
TCRB0805 - 271M	270.00	1	1.280	0.49
TCRB0805 - 331M	330.00	1	1.470	0.44
TCRB0805 - 391M	390.00	1	1.670	0.41
TCRB0805 - 471M	470.00	1	1.950	0.38
TCRB0805 - 561M	560.00	1	2.830	0.35
TCRB0805 - 681M	680.00	1	3.250	0.32
TCRB0805 - 821M	820.00	1	3.820	0.31
TCRB0805 - 102M	1000.00	1	5.280	0.25
TCRB0805 - 122M	1200.00	1	6.030	0.23
TCRB0805 - 152M	1500.00	1	7.150	0.21
TCRB0805 - 182M	1800.00	1	8.260	0.20
TCRB0805 - 222M	2200.00	1	11.100	0.18
TCRB0805 - 272M	2700.00	1	13.100	0.16
TCRB0805 - 332M	3300.00	1	15.900	0.14
TCRB0805 - 392M	3900.00	1	18.000	0.13
TCRB0805 - 472M	4700.00	1	23.900	0.12
TCRB0805 - 562M	5600.00	1	26.800	0.11
TCRB0805 - 682M	6800.00	1	31.700	0.098
TCRB0805 - 822M	8200.00	1	46.500	0.088
TCRB0805 - 103M	10000.00	1	55.700	0.081

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.



Inductor

► Electrical Characteristics for TCRB0807 Series - Choke Radial Inductors

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRB0807 - 100M	10.00	1	0.050	2.90
TCRB0807 - 120M	12.00	1	0.060	2.50
TCRB0807 - 150M	15.00	1	0.070	2.20
TCRB0807 - 180M	18.00	1	0.080	1.90
TCRB0807 - 220M	22.00	1	0.090	1.80
TCRB0807 - 270M	27.00	1	0.110	1.70
TCRB0807 - 330M	33.00	1	0.130	1.50
TCRB0807 - 390M	39.00	1	0.140	1.30
TCRB0807 - 470M	47.00	1	0.150	1.30
TCRB0807 - 560M	56.00	1	0.180	1.20
TCRB0807 - 680M	68.00	1	0.200	1.10
TCRB0807 - 820M	82.00	1	0.240	1.00
TCRB0807 - 101M	100.00	1	0.280	0.89
TCRB0807 - 121M	120.00	1	0.360	0.81
TCRB0807 - 151M	150.00	1	0.420	0.72
TCRB0807 - 181M	180.00	1	0.570	0.66
TCRB0807 - 221M	220.00	1	0.630	0.57
TCRB0807 - 271M	270.00	1	0.880	0.51
TCRB0807 - 331M	330.00	1	1.050	0.46
TCRB0807 - 391M	390.00	1	1.170	0.44
TCRB0807 - 471M	470.00	1	1.340	0.41
TCRB0807 - 561M	560.00	1	1.720	0.36
TCRB0807 - 681M	680.00	1	1.960	0.33
TCRB0807 - 821M	820.00	1	2.560	0.30
TCRB0807 - 102M	1000.00	1	2.940	0.27
TCRB0807 - 122M	1200.00	1	4.040	0.24
TCRB0807 - 152M	1500.00	1	4.700	0.22
TCRB0807 - 182M	1800.00	1	5.050	0.20
TCRB0807 - 222M	2200.00	1	6.250	0.18
TCRB0807 - 272M	2700.00	1	8.720	0.16
TCRB0807 - 332M	3300.00	1	10.600	0.15
TCRB0807 - 392M	3900.00	1	14.200	0.14
TCRB0807 - 472M	4700.00	1	16.700	0.12
TCRB0807 - 562M	5600.00	1	18.700	0.11
TCRB0807 - 682M	6800.00	1	21.800	0.10
TCRB0807 - 822M	8200.00	1	28.700	0.093
TCRB0807 - 103M	10000.00	1	33.000	0.084

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.





Inductor

► Electrical Characteristics for TCRB0809 Series - Choke Radial Inductors

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRB0809 - 100M	10.00	1	0.040	2.60
TCRB0809 - 120M	12.00	1	0.040	2.60
TCRB0809 - 150M	15.00	1	0.050	2.10
TCRB0809 - 180M	18.00	1	0.050	2.00
TCRB0809 - 220M	22.00	1	0.060	1.70
TCRB0809 - 270M	27.00	1	0.060	1.60
TCRB0809 - 330M	33.00	1	0.070	1.40
TCRB0809 - 390M	39.00	1	0.080	1.40
TCRB0809 - 470M	47.00	1	0.100	1.30
TCRB0809 - 560M	56.00	1	0.110	1.20
TCRB0809 - 680M	68.00	1	0.140	1.10
TCRB0809 - 820M	82.00	1	0.160	1.00
TCRB0809 - 101M	100.00	1	0.190	0.90
TCRB0809 - 121M	120.00	1	0.220	0.82
TCRB0809 - 151M	150.00	1	0.270	0.74
TCRB0809 - 181M	180.00	1	0.310	0.71
TCRB0809 - 221M	220.00	1	0.380	0.64
TCRB0809 - 271M	270.00	1	0.530	0.57
TCRB0809 - 331M	330.00	1	0.610	0.51
TCRB0809 - 391M	390.00	1	0.690	0.48
TCRB0809 - 471M	470.00	1	0.890	0.43
TCRB0809 - 561M	560.00	1	1.010	0.40
TCRB0809 - 681M	680.00	1	1.180	0.35
TCRB0809 - 821M	820.00	1	1.570	0.32
TCRB0809 - 102M	1000.00	1	1.840	0.30
TCRB0809 - 122M	1200.00	1	2.100	0.27
TCRB0809 - 152M	1500.00	1	2.800	0.23
TCRB0809 - 182M	1800.00	1	3.210	0.21
TCRB0809 - 222M	2200.00	1	4.210	0.19
TCRB0809 - 272M	2700.00	1	4.940	0.17
TCRB0809 - 332M	3300.00	1	6.160	0.15
TCRB0809 - 392M	3900.00	1	6.840	0.14
TCRB0809 - 472M	4700.00	1	7.890	0.13
TCRB0809 - 562M	5600.00	1	11.500	0.12
TCRB0809 - 682M	6800.00	1	13.200	0.11
TCRB0809 - 822M	8200.00	1	15.200	0.10
TCRB0809 - 103M	10000.00	1	22.000	0.089
TCRB0809 - 123M	12000.00	1	25.000	0.073
TCRB0809 - 153M	15000.00	1	29.100	0.068
TCRB0809 - 183M	18000.00	1	38.900	0.066
TCRB0809 - 223M	22000.00	1	44.900	0.059
TCRB0809 - 273M	27000.00	1	55.700	0.052
TCRB0809 - 333M	33000.00	1	64.200	0.048
TCRB0809 - 393M	39000.00	1	74.200	0.042
TCRB0809 - 473M	47000.00	1	96.400	0.038

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.





Inductor

► How to Order

TCRB (UL) 0605 - 1R0 M

① ② ③ ④ ⑤

① Inductor Radial Choke

② TUBE : UL

③ Size : 0605, 0606, 0805, 0807, 0809

④ Inductance

Code	Inductance
1R0	1.00 μ H
100	10.00 μ H
101	100.00 μ H
102	1000.00 μ H

⑤ Tolerance

Code	Tolerance
J	5%
K	10%
L	15%
M	20%
N	30%
Y	min





Inductor

TCRC Radial Series - Choke Inductor

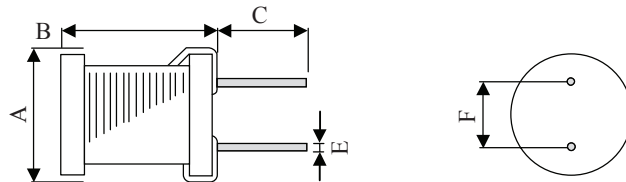
► Inductor Features

Open Magnetic circuit construction.
Low cost and high reliability.

► Applications

Notebook, Notebook, Inkjet printer, Copying machine, Display monitor, Cellular phone, ADSL modem, Gaming machine, Color TV, Video tape recorder, Video camera, Microwave oven, Lighting and Car electronics.

► Configurations & Dimensions (unit: mm) - Choke Inductor Radial



Bottom View

Type	$\Phi A(\text{max})$	B(max)	$C \pm 1.5$	$\Phi E \pm 0.05$	$F \pm 0.5$
TCRC0406	6.0	9.5	15.0	0.50	2.0
TCRC0608	8.0	11.5	15.0	0.65	3.0
TCRC0810	10.0	14.0	15.0	0.65	5.0
TCRC0912	11.0	16.5	15.0	0.80	5.0
TCRC1012	12.0	16.5	15.0	0.80	6.0
TCRC1016	12.5	21.0	15.0	0.80	6.0

Note: Design as Customer's Requested Specifications.

► Electrical Characteristics for TCRC0406 Series - Choke Inductor Radial

Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0406 - 1R0N	1.00	1	0.030	3.00
TCRC0406 - 1R5N	1.50	1	0.035	2.80
TCRC0406 - 1R8N	1.80	1	0.040	2.70
TCRC0406 - 2R2N	2.20	1	0.045	2.50
TCRC0406 - 2R7N	2.70	1	0.050	2.50
TCRC0406 - 3R3N	3.30	1	0.055	2.20
TCRC0406 - 3R9N	3.90	1	0.055	2.20
TCRC0406 - 4R7N	4.70	1	0.065	2.00
TCRC0406 - 5R6N	5.60	1	0.070	1.80
TCRC0406 - 6R8N	6.80	1	0.080	1.70
TCRC0406 - 8R2N	8.20	1	0.090	1.50
TCRC0406 - 100M	10.00	1	0.110	1.40
TCRC0406 - 120M	12.00	1	0.140	1.20
TCRC0406 - 150M	15.00	1	0.160	1.00
TCRC0406 - 180M	18.00	1	0.180	1.00
TCRC0406 - 220M	22.00	1	0.250	0.90
TCRC0406 - 270M	27.00	1	0.370	0.80
TCRC0406 - 330M	33.00	1	0.420	0.70

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Inductor

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Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0406 - 390M	39.00	1	0.450	0.70
TCRC0406 - 470M	47.00	1	0.500	0.60
TCRC0406 - 560M	56.00	1	0.560	0.60
TCRC0406 - 680M	68.00	1	0.630	0.55
TCRC0406 - 820M	82.00	1	0.770	0.50
TCRC0406 - 101M	100.00	1	0.850	0.40
TCRC0406 - 121M	120.00	1	1.300	0.40
TCRC0406 - 151M	150.00	1	1.400	0.30
TCRC0406 - 181M	180.00	1	2.200	0.30
TCRC0406 - 221M	220.00	1	2.500	0.28
TCRC0406 - 271M	270.00	1	2.700	0.25
TCRC0406 - 331M	330.00	1	3.000	0.22
TCRC0406 - 391M	390.00	1	3.400	0.21
TCRC0406 - 471M	470.00	1	3.900	0.20
TCRC0406 - 561M	560.00	1	5.000	0.16
TCRC0406 - 681M	680.00	1	7.000	0.15
TCRC0406 - 821M	820.00	1	7.700	0.14
TCRC0406 - 102M	1000.00	1	8.700	0.12

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.

▶ Electrical Characteristics for TCRC0608 Series - Choke Inductor Radial

Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0608 - 1R0N	1.00	1	0.015	3.00
TCRC0608 - 1R2N	1.20	1	0.015	2.80
TCRC0608 - 1R5N	1.50	1	0.015	2.70
TCRC0608 - 2R2N	2.20	1	0.015	2.60
TCRC0608 - 2R7N	2.70	1	0.020	2.50
TCRC0608 - 3R3N	3.30	1	0.020	2.50
TCRC0608 - 3R9N	3.90	1	0.025	2.50
TCRC0608 - 4R7N	4.70	1	0.025	2.30
TCRC0608 - 5R6N	5.60	1	0.030	2.10
TCRC0608 - 6R8N	6.80	1	0.030	1.80
TCRC0608 - 8R2N	8.20	1	0.035	1.20
TCRC0608 - 100M	10.00	1	0.045	1.00
TCRC0608 - 120M	12.00	1	0.050	1.00
TCRC0608 - 150M	15.00	1	0.055	0.90
TCRC0608 - 180M	18.00	1	0.090	0.90
TCRC0608 - 220M	22.00	1	0.095	0.80
TCRC0608 - 270M	27.00	1	0.110	0.75
TCRC0608 - 330M	33.00	1	0.125	0.70

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Inductor

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Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0608 - 390M	39.00	1	0.140	0.65
TCRC0608 - 470M	47.00	1	0.160	0.60
TCRC0608 - 560M	56.00	1	0.180	0.60
TCRC0608 - 680M	68.00	1	0.200	0.56
TCRC0608 - 820M	82.00	1	0.270	0.48
TCRC0608 - 101M	100.00	1	0.310	0.45
TCRC0608 - 121M	120.00	1	0.370	0.43
TCRC0608 - 151M	150.00	1	0.470	0.40
TCRC0608 - 181M	180.00	1	0.540	0.40
TCRC0608 - 221M	220.00	1	0.730	0.38
TCRC0608 - 271M	270.00	1	0.830	0.32
TCRC0608 - 331M	330.00	1	0.950	0.30
TCRC0608 - 391M	390.00	1	1.220	0.25
TCRC0608 - 471M	470.00	1	1.630	0.22
TCRC0608 - 561M	560.00	1	1.800	0.20
TCRC0608 - 681M	680.00	1	2.100	0.18
TCRC0608 - 821M	820.00	1	2.900	0.17
TCRC0608 - 102M	1000.00	1	3.200	0.15

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.

► Electrical Characteristics for TCRC0810 Series - Choke Inductor Radial

Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0810 - 1R0N	1.00	1	0.015	4.50
TCRC0810 - 1R5N	1.50	1	0.020	4.50
TCRC0810 - 2R2N	2.20	1	0.020	4.20
TCRC0810 - 2R7N	2.70	1	0.020	4.20
TCRC0810 - 3R3N	3.30	1	0.020	4.00
TCRC0810 - 3R9N	3.90	1	0.020	4.00
TCRC0810 - 4R7N	4.70	1	0.025	4.00
TCRC0810 - 5R6N	5.60	1	0.025	4.00
TCRC0810 - 6R8N	6.80	1	0.025	4.00
TCRC0810 - 8R2N	8.20	1	0.035	3.80
TCRC0810 - 100M	10.00	1	0.040	3.80
TCRC0810 - 120M	12.00	1	0.040	3.20
TCRC0810 - 150M	15.00	1	0.045	2.80
TCRC0810 - 180M	18.00	1	0.060	2.50
TCRC0810 - 220M	22.00	1	0.070	2.10
TCRC0810 - 270M	27.00	1	0.085	2.00
TCRC0810 - 330M	33.00	1	0.090	1.80
TCRC0810 - 390M	39.00	1	0.100	1.60

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Inductor

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Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0810 - 470M	47.00	1	0.110	1.50
TCRC0810 - 560M	56.00	1	0.150	1.30
TCRC0810 - 680M	68.00	1	0.190	1.00
TCRC0810 - 820M	82.00	1	0.210	0.90
TCRC0810 - 101M	100.00	1	0.240	0.80
TCRC0810 - 121M	120.00	1	0.260	0.80
TCRC0810 - 151M	150.00	1	0.310	0.75
TCRC0810 - 181M	180.00	1	0.380	0.70
TCRC0810 - 221M	220.00	1	0.430	0.65
TCRC0810 - 271M	270.00	1	0.490	0.63
TCRC0810 - 331M	330.00	1	0.660	0.60
TCRC0810 - 391M	390.00	1	0.790	0.58
TCRC0810 - 471M	470.00	1	0.910	0.52
TCRC0810 - 561M	560.00	1	1.130	0.50
TCRC0810 - 681M	680.00	1	1.300	0.40
TCRC0810 - 821M	820.00	1	1.530	0.30
TCRC0810 - 102M	1000.00	1	1.800	0.27

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.

► Electrical Characteristics for TCRC0912 Series - Choke Inductor Radial

Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0912 - 1R0N	1.00	1	0.015	5.00
TCRC0912 - 1R5N	1.50	1	0.015	5.00
TCRC0912 - 1R8N	1.80	1	0.015	5.00
TCRC0912 - 2R2N	2.20	1	0.015	5.00
TCRC0912 - 3R3N	3.30	1	0.020	4.80
TCRC0912 - 3R9N	3.90	1	0.020	4.80
TCRC0912 - 4R7N	4.70	1	0.020	4.50
TCRC0912 - 5R6N	5.60	1	0.025	4.00
TCRC0912 - 6R8N	6.80	1	0.025	3.90
TCRC0912 - 8R2N	8.20	1	0.025	3.50
TCRC0912 - 100M	10.00	1	0.030	3.40
TCRC0912 - 120M	12.00	1	0.030	3.20
TCRC0912 - 150M	15.00	1	0.040	3.00
TCRC0912 - 180M	18.00	1	0.045	2.80
TCRC0912 - 220M	22.00	1	0.050	2.70
TCRC0912 - 270M	27.00	1	0.055	2.50
TCRC0912 - 330M	33.00	1	0.055	2.50
TCRC0912 - 390M	39.00	1	0.060	2.00
TCRC0912 - 470M	47.00	1	0.070	1.80

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Inductor

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Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC0912 - 560M	56.00	1	0.080	1.70
TCRC0912 - 680M	68.00	1	0.090	1.50
TCRC0912 - 820M	82.00	1	0.110	1.40
TCRC0912 - 101M	100.00	1	0.160	1.20
TCRC0912 - 121M	120.00	1	0.170	1.10
TCRC0912 - 151M	150.00	1	0.200	1.00
TCRC0912 - 181M	180.00	1	0.220	0.90
TCRC0912 - 221M	220.00	1	0.260	0.80
TCRC0912 - 271M	270.00	1	0.390	0.70
TCRC0912 - 331M	330.00	1	0.450	0.50
TCRC0912 - 391M	390.00	1	0.490	0.45
TCRC0912 - 471M	470.00	1	0.620	0.43
TCRC0912 - 561M	560.00	1	0.640	0.40
TCRC0912 - 681M	680.00	1	0.790	0.38
TCRC0912 - 821M	820.00	1	1.340	0.35
TCRC0912 - 102M	1000.00	1	1.820	0.30

Note: Test Freq.: 1KHz / 0.25V.
 Operating Temp.: -40°C ~ +85°C
 Inductance drop = 10% typ. at IDC.

► Electrical Characteristics for TCRC1012 Series - Choke Inductor Radial

Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC1012 - 1R0N	1.00	1	0.010	6.00
TCRC1012 - 1R5N	1.50	1	0.010	6.00
TCRC1012 - 1R8N	1.80	1	0.015	6.00
TCRC1012 - 2R7N	2.70	1	0.015	5.50
TCRC1012 - 3R3N	3.30	1	0.015	5.50
TCRC1012 - 3R9N	3.90	1	0.020	5.00
TCRC1012 - 4R7N	4.70	1	0.020	5.00
TCRC1012 - 5R6N	5.60	1	0.025	4.80
TCRC1012 - 6R8N	6.80	1	0.025	4.80
TCRC1012 - 8R2N	8.20	1	0.025	4.50
TCRC1012 - 100M	10.00	1	0.025	4.50
TCRC1012 - 120M	12.00	1	0.025	4.30
TCRC1012 - 150M	15.00	1	0.035	4.30
TCRC1012 - 180M	18.00	1	0.040	4.00
TCRC1012 - 220M	22.00	1	0.045	3.70
TCRC1012 - 270M	27.00	1	0.045	3.50
TCRC1012 - 330M	33.00	1	0.055	3.00
TCRC1012 - 390M	39.00	1	0.060	2.50
TCRC1012 - 470M	47.00	1	0.080	2.30
TCRC1012 - 560M	56.00	1	0.085	2.00

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Inductor

↖ Continued from the preceding page.

Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC1012 - 680M	68.00	1	0.095	2.00
TCRC1012 - 820M	82.00	1	0.110	1.80
TCRC1012 - 101M	100.00	1	0.140	1.70
TCRC1012 - 121M	120.00	1	0.160	1.50
TCRC1012 - 151M	150.00	1	0.180	1.40
TCRC1012 - 181M	180.00	1	0.250	1.30
TCRC1012 - 221M	220.00	1	0.280	1.00
TCRC1012 - 271M	270.00	1	0.420	0.90
TCRC1012 - 331M	330.00	1	0.540	0.80
TCRC1012 - 391M	390.00	1	0.600	0.80
TCRC1012 - 471M	470.00	1	0.660	0.70
TCRC1012 - 561M	560.00	1	0.740	0.60
TCRC1012 - 681M	680.00	1	0.840	0.50
TCRC1012 - 821M	820.00	1	1.080	0.50
TCRC1012 - 102M	1000.00	1	1.390	0.50

Note: Test Freq.: 1KHz / 0.25V.
 Operating Temp.: -40°C ~ +85°C
 Inductance drop = 10% typ. at IDC.

▶ Electrical Characteristics for TCRC1016 Series - Choke Inductor Radial

Part Number	Inductance(μH)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC1016 - 1R0N	1.00	1	0.010	9.00
TCRC1016 - 1R5N	1.50	1	0.015	9.00
TCRC1016 - 1R8N	1.80	1	0.015	9.00
TCRC1016 - 2R7N	2.70	1	0.015	9.00
TCRC1016 - 3R3N	3.30	1	0.015	8.50
TCRC1016 - 3R9N	3.90	1	0.015	8.00
TCRC1016 - 4R7N	4.70	1	0.020	7.50
TCRC1016 - 5R6N	5.60	1	0.025	7.50
TCRC1016 - 6R8N	6.80	1	0.025	7.50
TCRC1016 - 8R2N	8.20	1	0.025	7.20
TCRC1016 - 100M	10.00	1	0.030	7.20
TCRC1016 - 120M	12.00	1	0.030	7.00
TCRC1016 - 150M	15.00	1	0.035	6.50
TCRC1016 - 180M	18.00	1	0.035	6.30
TCRC1016 - 220M	22.00	1	0.045	5.50
TCRC1016 - 270M	27.00	1	0.050	4.50
TCRC1016 - 330M	33.00	1	0.070	4.00
TCRC1016 - 390M	39.00	1	0.070	3.80
TCRC1016 - 470M	47.00	1	0.070	3.60
TCRC1016 - 560M	56.00	1	0.080	3.20
TCRC1016 - 680M	68.00	1	0.090	3.00

Continued on the following page. ↘



Inductor

Continued from the preceding page.

Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRC1016 - 820M	82.00	1	0.095	2.60
TCRC1016 - 101M	100.00	1	0.120	2.50
TCRC1016 - 121M	120.00	1	0.140	2.30
TCRC1016 - 151M	150.00	1	0.170	2.10
TCRC1016 - 181M	180.00	1	0.190	2.00
TCRC1016 - 221M	220.00	1	0.250	1.80
TCRC1016 - 271M	270.00	1	0.340	1.50
TCRC1016 - 331M	330.00	1	0.450	1.50
TCRC1016 - 391M	390.00	1	0.510	1.30
TCRC1016 - 471M	470.00	1	0.560	1.20
TCRC1016 - 561M	560.00	1	0.640	1.00
TCRC1016 - 681M	680.00	1	0.710	1.00
TCRC1016 - 821M	820.00	1	1.010	0.90
TCRC1016 - 102M	1000.00	1	1.200	0.80

Note: Test Freq.: 1KHz / 0.25V.
 Operating Temp.: -40°C ~ +85°C
 Inductance drop = 10% typ. at IDC.

How to Order

TCRC	-	(UL)	0406	1R0	M
①		②	③	④	⑤

- ① Choke Inductor Radial : TCRC
- ② Tube: UL
- ③ Size: 0406, 0608, 0810, 0912, 1012, 1016
- ④ Inductance

Code	Inductance
1R0	1.00 μ H
100	10.00 μ H
101	100.00 μ H
102	1000.00 μ H

⑤ Tolerance

Code	Tolerance
J	5%
K	10%
L	15%
M	20%
N	30%
Y	min



Inductor

Choke Inductor - TCRS Radial Series

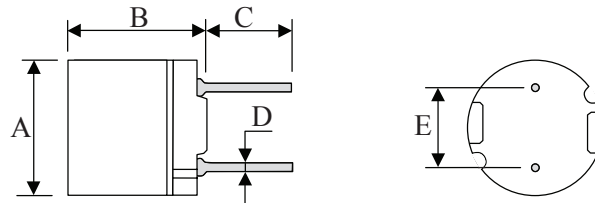
► Inductor Features

Open Magnetic circuit construction.
Ideal for use as an inductor for high current power supplies in all types of electronic instruments.

► Applications

Notebook, Inkjet printer, Copying machine, Display monitor, Cellular phone, ADSL modem, Gaming machine, Color TV, Video tape recorder, Video camera, Microwave oven, Lighting and Car electronics.

► Configurations & Dimensions (unit: mm) - Choke Inductor Shielded Radial



Type	ΦA (max)	B (max)	C \pm 1.0	D \pm 0.05	E \pm 0.5
TCRS0606	6.5	6.5	4.0	0.50	4.0
TCRS0807	8.3	7.5	5.0	0.65	5.0

Note: Design as Customer's Requested Specifications.

► Electrical Characteristics for TCRS0606 Series - Choke Inductor Shielded Radial

Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRS0606 - 220M	22.00	1	0.130	0.96
TCRS0606 - 270M	27.00	1	0.180	0.87
TCRS0606 - 330M	33.00	1	0.210	0.78
TCRS0606 - 390M	39.00	1	0.260	0.72
TCRS0606 - 470M	47.00	1	0.290	0.66
TCRS0606 - 560M	56.00	1	0.330	0.60
TCRS0606 - 680M	68.00	1	0.360	0.55
TCRS0606 - 820M	82.00	1	0.390	0.50
TCRS0606 - 101M	100.00	1	0.540	0.45
TCRS0606 - 121M	120.00	1	0.620	0.41
TCRS0606 - 151M	150.00	1	0.720	0.37
TCRS0606 - 181M	180.00	1	0.880	0.34
TCRS0606 - 221M	220.00	1	0.990	0.30
TCRS0606 - 271M	270.00	1	1.520	0.27
TCRS0606 - 331M	330.00	1	1.690	0.25
TCRS0606 - 391M	390.00	1	1.850	0.23
TCRS0606 - 471M	470.00	1	2.850	0.21
TCRS0606 - 561M	560.00	1	3.210	0.19
TCRS0606 - 681M	680.00	1	3.600	0.17
TCRS0606 - 821M	820.00	1	4.870	0.16
TCRS0606 - 102M	1000.00	1	5.560	0.14

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

Inductance drop = 10% typ. at IDC.





Inductor

► Electrical Characteristics for TCRS0807 Series - Choke Inductor Shielded Radial

Part Number	Inductance(μ H)	Test Freq.(KHz)	DCR (Ω)(max)	IDC (A)(max)
TCRS0807 - 220M	22.00	1	0.080	1.60
TCRS0807 - 270M	27.00	1	0.100	1.40
TCRS0807 - 330M	33.00	1	0.140	1.30
TCRS0807 - 390M	39.00	1	0.150	1.20
TCRS0807 - 470M	47.00	1	0.170	1.10
TCRS0807 - 560M	56.00	1	0.190	0.99
TCRS0807 - 680M	68.00	1	0.210	0.89
TCRS0807 - 820M	82.00	1	0.270	0.81
TCRS0807 - 101M	100.00	1	0.320	0.74
TCRS0807 - 121M	120.00	1	0.360	0.67
TCRS0807 - 151M	150.00	1	0.510	0.60
TCRS0807 - 181M	180.00	1	0.570	0.55
TCRS0807 - 221M	220.00	1	0.760	0.50
TCRS0807 - 271M	270.00	1	0.860	0.45
TCRS0807 - 331M	330.00	1	0.970	0.41
TCRS0807 - 391M	390.00	1	1.280	0.37
TCRS0807 - 471M	470.00	1	1.440	0.34
TCRS0807 - 561M	560.00	1	1.610	0.31
TCRS0807 - 681M	680.00	1	2.070	0.28
TCRS0807 - 821M	820.00	1	2.330	0.26
TCRS0807 - 102M	1000.00	1	2.720	0.23
TCRS0807 - 122M	1200.00	1	3.980	0.21
TCRS0807 - 152M	1500.00	1	4.500	0.19
TCRS0807 - 182M	1800.00	1	6.810	0.17
TCRS0807 - 222M	2200.00	1	7.560	0.16
TCRS0807 - 272M	2700.00	1	8.540	0.14
TCRS0807 - 332M	3300.00	1	9.740	0.13
TCRS0807 - 392M	3900.00	1	12.900	0.12
TCRS0807 - 472M	4700.00	1	14.700	0.11
TCRS0807 - 562M	5600.00	1	20.400	0.099
TCRS0807 - 682M	6800.00	1	23.000	0.089
TCRS0807 - 822M	8200.00	1	30.600	0.081
TCRS0807 - 103M	10000.00	1	35.000	0.074

Note: Test Freq.: 1KHz / 0.25V.

Operating Temp.: -40°C ~ +85°C

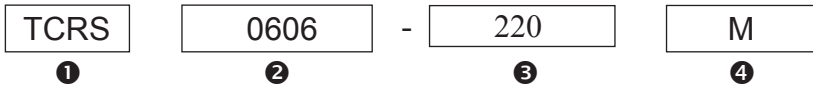
Inductance drop = 10% typ. at IDC.





Inductor

► How to Order



❶ Choke Inductor Shielded Radial: TCRS

❷ Size: 0606, 0807

❸ Inductance

Code	Inductance
220	22.00μH
101	100.00μH
102	1000.00μH
103	10000.00μH

❹ Tolerance

Code	Tolerance
J	5%
K	10%
L	15%
M	20%
N	30%
Y	min





Inductor

Wide Band Chokes - WB Series Inductor Filters Coils

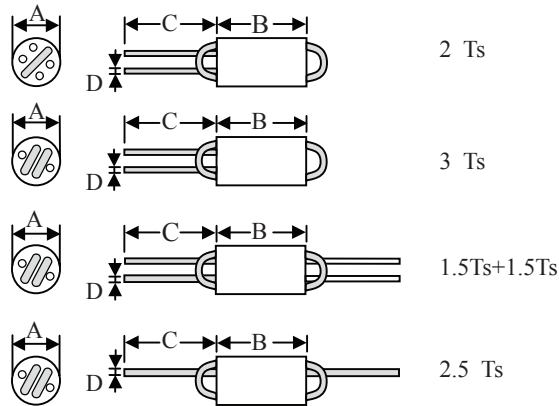
Choke Features

The wide band choke cores mainly used in the PC boards to filters the EMI from the outsides.
Ferrite core construction of low cost.

Applications

Personal Computer and electronic products.

Configurations & Dimensions (unit: mm) - Wide Band Chokes



Type	$\Phi A \pm 0.5$	$B \pm 0.5$	$C \pm 3.0$	$\Phi D \pm 0.05$
TCWBR6H - 1.5Ts	6.0	10.0	25.0	0.5 / 0.6
TCWBR6H - 2.5Ts	6.0	10.0	25.0	0.5 / 0.6
TCWBR6H - 3.0Ts	6.0	10.0	25.0	0.5 / 0.6
TCWBR6H - 1.5+1.5Ts	6.0	10.0	25.0	0.5 / 0.6

Note: Design as Customer's Requested Specifications.

How to Order



① Wide Band Chokes : TCWB

② Hole

Code	Hole
R6H	6 holes
R8H	8 holes

③ No. of Turns





Inductor

Ferrite Beads Filter Inductor - FB Series

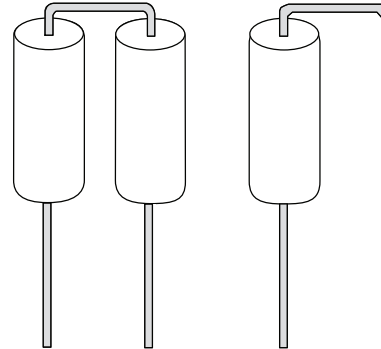
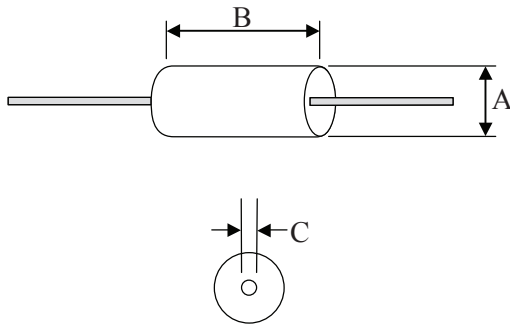
► Features

- Reducing radio frequency interference and noise.
- Low Cost, High reliability.

► Applications

- VGA card, EGA card, Mother board, TV game.

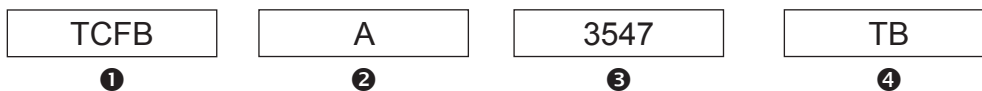
► Ferrite Beads Configurations & Dimensions (unit: mm)



Type	A	B	C	Impedance (Ω) Min.	
				10MHz	100MHz
TCFB*2515*	2.5±0.15	1.5±0.15	0.65	5.0	20.0
TCFB*2530*	2.5±0.15	3.0±0.20	0.65	8.0	25.0
TCFB*2540*	2.5±0.15	4.0±0.20	0.65	12.0	32.0
TCFB*2575*	2.5±0.15	7.0±0.30	0.65	20.0	58.0
TCFB*3530*	3.5±0.20	3.0±0.20	0.65	13.0	65.0
TCFB*3545*	3.5±0.20	4.5±0.20	0.65	20.0	45.0
TCFB*3547*	3.5±0.20	4.7±0.20	0.65	20.0	45.0
TCFB*3550*	3.5±0.20	5.0±0.20	0.65	20.0	50.0
TCFB*3560*	3.5±0.20	6.0±0.20	0.65	20.0	80.0
TCFB*3578*	3.5±0.20	7.8±0.30	0.65	28.0	90.0
TCFB*3583*	3.5±0.20	8.3±0.30	0.65	30.0	100.0
TCFB*3590*	3.5±0.20	9.0±0.40	0.65	60.0	100.0
TCFB*3510*	3.5±0.20	10.0±0.4	0.65	50.0	130.0
TCFB*3512*	3.5±0.20	12.0±0.5	0.65	45.0	145.0
TCFB*3514*	3.5±0.20	14.0±0.5	0.65	60.0	150.0

Note: Only available some sizes for Radial Double & Single core type.

► How to Order



① Ferrite Beads : TCFB

② Form

Code	Form
A	Axial Type
D	Radial double core type
S	Radial single core type

③ Outside Diameter "A" & Length "B"

④ Packing

Code	Packing
T	Tapping reel
TB	Tapping Box
P	Bulk



Inductor

Transformers - TCER 9.5/11.5/14.5 Series

▶ Transformer Features

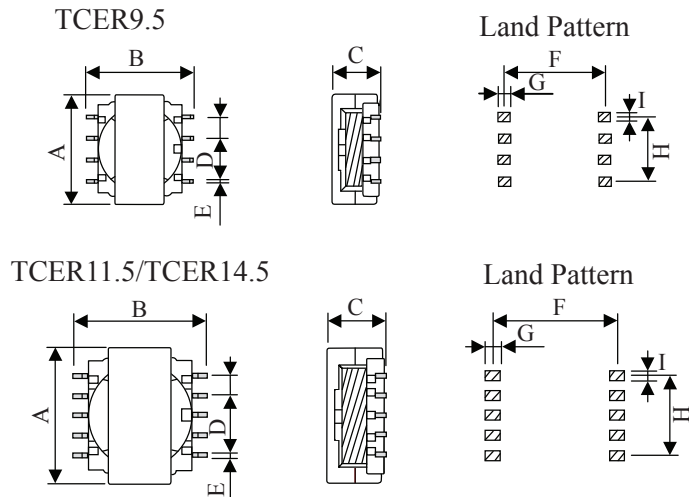
Mini-transformer and automatically seals.

▶ Applications

Multi-output DC-DC converter transformers for low-output power supplies.

Inverter transformers for EL drivers

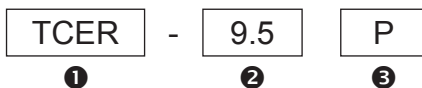
▶ Transformer Configurations & Dimensions (unit: mm)



Type	A(max)	B	C(max)	D ± 0.5	E ± 0.1	F	G	H	I
TCER9.5	10.0	11.0	6.0	2.5	0.6	10.0	1.3	7.5	0.8
TCER11.5	12.8	14.0	6.0	2.0	0.6	12.8	1.3	8.0	0.8
TCER14.5	15.8	16.0	7.0	2.5	0.8	14.4	1.3	10.0	1.0

Note: Design as Customer's Requested Specifications.

▶ How to Order



① Product Type

② Size

③ Packaging





Inductors

Large Current Power Inductor - TCDA Series

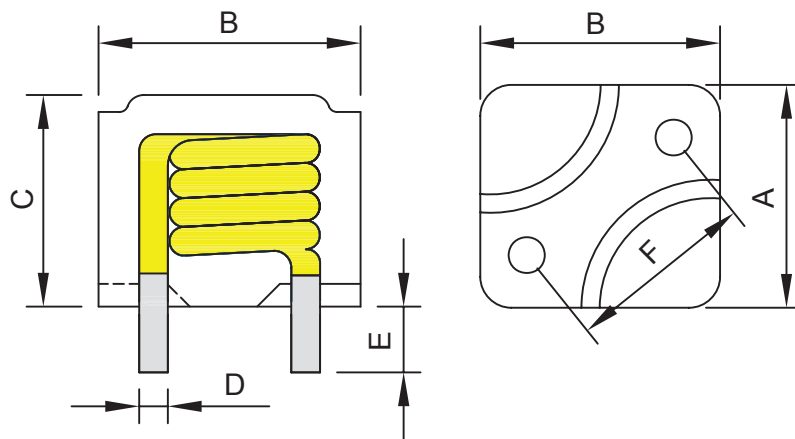
► Features

- Through Hole Power Inductor
- Low Profile: 7.5mm ~ 10.0mm
- For Large Current Use: 12 ~ 45 amp
- Low DCR
- High Frequency (up to 1MHz)

► Applications

- Laptop Computer / Notebook Computer
- Graphic Card/ VGA Module
- DC/DC converter or VRM applications
- Thin type on-board power supply module for exchanger
- Inductor for general purpose use

► TCDA1312 Configurations & Dimensions (unit: mm)



Type	A	B	C	D	E	F
TCDA1312	12.0 ± 0.5	13.0 ± 0.5	by each P/N	by each P/N	3.4 ± 0.5	10.0 ± 0.5



Inductors

► Electrical Characteristics for TCDA1312 Series

Part Number	L0 Inductance (μH) $\pm 20\%$ @0A	C (max) (mm)	D ± 0.1 (mm)	DCR (m Ω)		Heat Rating Current I _{dc} (Amp) Typical	Saturation Current I _{sat} (Amp) Typical
				(Typical)	(Max)		
TCDA1312-R22M	0.22	9	1.7	0.40	0.55	45	60
TCDA1312-R30M	0.30	9	1.7	0.55	0.70	40	60
TCDA1312-R33M	0.33	9	1.7	0.55	0.70	40	60
TCDA1312-R39M	0.39	9	1.7	0.55	0.70	40	60
TCDA1312-R47M	0.47	10	1.7	0.70	0.80	40	60
TCDA1312-R50M	0.50	10	1.7	0.70	0.80	40	60
TCDA1312-R56M	0.56	10	1.7	0.70	0.80	40	60
TCDA1312-R60M	0.60	10	1.7	0.70	0.80	40	60
TCDA1312-R68M	0.68	10	1.7	0.70	0.80	40	50
TCDA1312-R80M	0.8	10	1.7	0.70	0.85	40	50
TCDA1312-1R0M	1.0	10	1.5	1.20	1.35	30	50
TCDA1312-1R2M	1.2	10	1.5	1.20	1.50	30	40
TCDA1312-1R5M	1.5	10	1.4	1.50	1.70	25	30
TCDA1312-2R0M	2.0	10	1.2	2.90	3.30	17	25
TCDA1312-2R2M	2.2	10	1.2	2.90	3.30	17	25

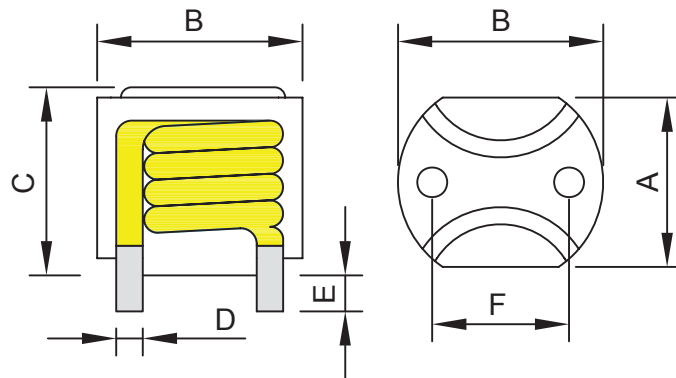
Note: All test Data is referenced to 25°C ambient.

Typical Heat Rating DC Current would cause an approximately ΔT of 40°C.

Typical Saturation DC Current would cause L₀ to drop approximately 20%.

Operating Temperature Range: -25°C to +125°C.

► TCDA1210 Configurations & Dimensions (unit: mm)



Type	A	B	C	D	E	F
TCDA1210	10.2 \pm 0.5	12.3 \pm 0.5	by each P/N	by each P/N	3.5 \pm 0.5	8.0 \pm 0.5



Inductors

► Electrical Characteristics for TCDA1210 Series

Part Number	L0 Inductance (μH) ±20% @0A	C (max) (mm)	D ± 0.1 (mm)	DCR (mΩ)		Heat Rating Current I _{dc} (Amp) Typical	Saturation Current I _{sat} (Amp) Typical
				(Typical)	(Max)		
TCDA1210-R22M	0.22	7.5	1.4	0.5	0.6	38	56
TCDA1210-R33M	0.33	8.6	1.4	0.7	0.8	33	48
TCDA1210-R39M	0.39	8.6	1.4	0.7	0.8	33	45
TCDA1210-R47M	0.47	10	1.5	0.85	1.0	30	40
TCDA1210-R56M	0.56	10	1.5	0.85	1.0	30	40
TCDA1210-R68M	0.68	10	1.5	0.85	1.0	30	40
TCDA1210-R80M	0.8	10	1.4	1.25	1.45	26	36
TCDA1210-1R0M	1.0	10	1.2	1.75	2.0	24	32
TCDA1210-1R2M	1.0	10	1.2	1.75	2.0	24	30
TCDA1210-1R5M	1.5	10	1.0	3.0	3.5	22	30
TCDA1210-2R2M	2.2	10	1.0	3.8	4.6	20	25
TCDA1210-2R8M	2.8	10	1.0	4.5	5.0	18	20
TCDA1210-3R3M	3.3	10	0.8	6.4	7.2	14	16
TCDA1210-4R7M	4.7	10	0.8	8.3	9.8	12	15

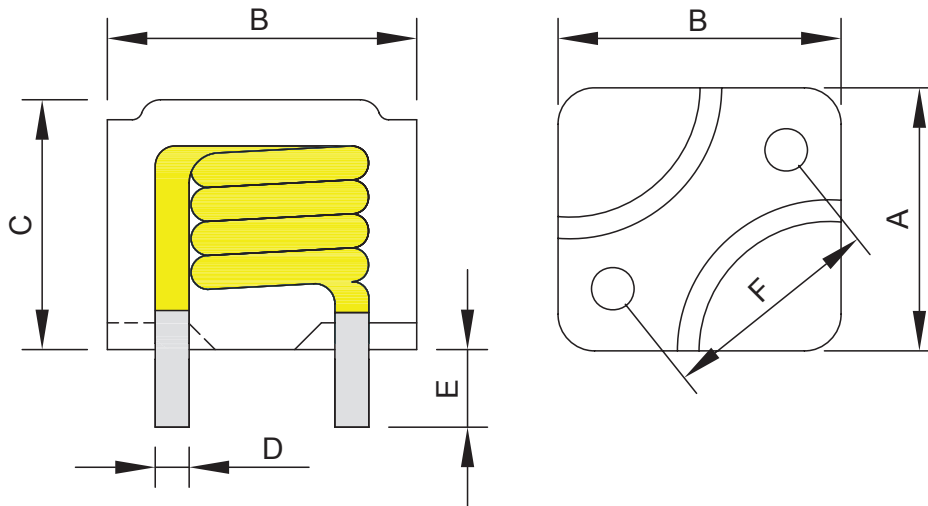
Note: All test Data is referenced to 25°C ambient.

Typical Heat Rating DC Current would cause an approximately ΔT of 40°C.

Typical Saturation DC Current would cause L₀ to drop approximately 20%.

Operating Temperature Range: -25°C to +125°C.

► TCDA1109 & TCDA1090 Configurations & Dimensions (unit: mm)



Type	A	B	C	D	E	F
TCDA1109	11.0 ± 0.5	11.0 ± 0.5	by each P/N	by each P/N	3.4 ± 0.5	8.5 ± 0.5
TCDA1090	11.0 max	11.0 max	by each P/N	by each P/N	3.4 ± 0.5	7.5 ± 0.5



Inductors

► Electrical Characteristics for TCDA1109 Series

Part Number	L0 Inductance (μH) ±20% @0A	C (max) (mm)	D ± 0.1 (mm)	DCR (mΩ)		Heat Rating Current Idc (Amp) Typical	Saturation Current Isat (Amp) Typical
				(Typical)	(Max)		
TCDA1109-R25M	0.25	8	1.5	0.70	0.80	45	60
TCDA1109-R30M	0.30	8	1.5	0.70	0.80	45	60
TCDA1109-R33M	0.33	8	1.5	0.70	0.80	45	60
TCDA1109-R36M	0.36	8	1.5	0.70	0.80	45	60
TCDA1109-R40M	0.40	8	1.5	0.70	0.80	45	60
TCDA1109-R47M	0.47	9	1.5	0.90	1.00	40	60
TCDA1109-R50M	0.50	9	1.5	0.90	1.00	40	60
TCDA1109-R56M	0.56	9	1.5	0.90	1.00	40	50
TCDA1109-R60M	0.60	9	1.5	0.90	1.00	40	50
TCDA1109-R68M	0.68	9	1.5	0.90	1.00	40	40
TCDA1109-R80M	0.8	10	1.4	1.30	1.60	25	45
TCDA1109-1R0M	1.0	10	1.4	1.40	1.80	25	45
TCDA1109-1R5M	1.5	10	1.2	2.20	2.50	21	32
TCDA1109-2R0M	2.0	10	1.0	3.30	4.00	15	27
TCDA1109-2R2M	2.2	10	1.0	4.50	5.00	15	40
TCDA1109-2R5M	2.5	10	1.0	4.50	5.00	15	30

Note: All test Data is referenced to 25°C ambient.

Typical Heat Rating DC Current would cause an approximately ΔT of 40°C.

Typical Saturation DC Current would cause Lo to drop approximately 20%.

Operating Temperature Range: -25°C to +125°C.

► Electrical Characteristics for TCDA1090 Series

Part Number	L0 Inductance (μH) ±20% @0A	C (max) (mm)	D ± 0.1 (mm)	DCR (mΩ)		Heat Rating Current Idc (Amp) Typical	Saturation Current Isat (Amp) Typical
				(Typical)	(Max)		
TCDA1090-R15M	0.15	9	1.4	0.45	0.60	40	60
TCDA1090-R20M	0.20	9	1.4	0.45	0.60	40	60
TCDA1090-R25M	0.25	9	1.4	0.45	0.60	40	50
TCDA1090-R30M	0.30	10	1.4	0.65	0.75	40	60
TCDA1090-R33M	0.33	10	1.4	0.65	0.75	40	60
TCDA1090-R36M	0.36	10	1.4	0.65	0.75	40	50
TCDA1090-R39M	0.39	10	1.4	0.65	0.75	40	50
TCDA1090-R47M	0.47	10	1.4	0.90	1.10	35	50
TCDA1090-R60M	0.60	10	1.4	0.90	1.10	35	50
TCDA1090-R68M	0.68	10	1.4	0.90	1.10	35	40
TCDA1090-R80M	0.8	10	1.4	1.10	1.30	33	40
TCDA1090-1R0M	1.0	10	1.2	1.55	1.80	27	40
TCDA1090-1R2M	1.2	10	1.2	1.90	2.20	25	30
TCDA1090-1R5M	1.5	10	1.0	2.70	3.00	21	30
TCDA1090-1R8M	1.8	10	1.0	2.70	3.00	21	30
TCDA1090-2R2M	2.2	10	1.2	3.70	4.00	18	30

Note: All test Data is referenced to 25°C ambient.

Typical Heat Rating DC Current would cause an approximately ΔT of 40°C.

Typical Saturation DC Current would cause Lo to drop approximately 20%.

Operating Temperature Range: -25°C to +125°C.





Inductors

► How to Order

TCDA 1312 - R22 M
① ② ③ ④

① Large Current Power Inductor : TCDA

② Size : 1312,1210,1109,1090

③ Inductance

Code	Inductance
R22	0.22 μ H
1R0	1.00 μ H

④ Tolerance

Code	Tolerance
M	20%

