

# Coil Choke Inductors

**Radial Choke Coils with open magnetic circuit construction design makes better TCR (TCRB)**

## ▶ Preview

Token TCRB series structure with open magnetic circuit construction design and protect by UL or PVC Heat-shrinkable tube. The TCRB features with small size, space savings, low cost, wide inductance range, high Q value, high availability of a large induced current, high self-resonance frequency, small magnetic flux leakage and so on.

Choke coils, also known as: Choke, differential mode inductors, is used to limit the alternating current through the coil, high-frequency and low frequency choke coils.

The TCRB is ideal for broadband modems, game consoles, lighting equipment, notebook computers, inkjet printers, photocopying machines, color TV, VCR, camera, microwave ovens, display monitors, mobile phones, automotive electronics products.

Token will also produce devices outside these specifications to meet specific customer requirements, please contact our sales for more information.

## Features :

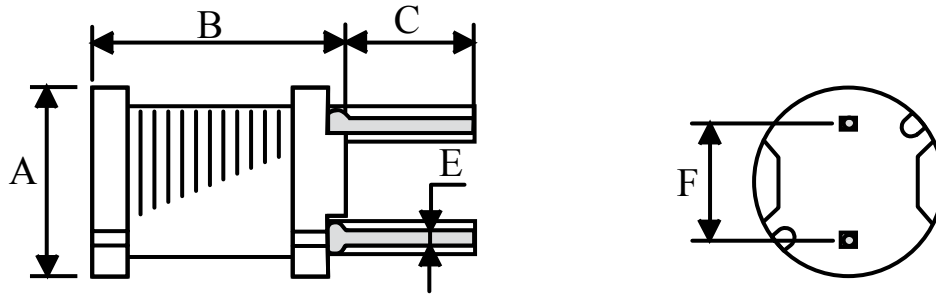
- Open magnetic circuit construction
- Low cost and high reliability

## Applications :

- Video Camera, Video Tape Recorder,
- Notebook, Inkjet Printer, Copying Machine,
- Display Monitor, Cellular Phone, ADSL Modem,
- Microwave Oven, Lighting and Car Electronics.



## Configurations & Dimensions



Type	$\Phi A(\text{max})$	B(max)	$C \pm 1.0$	$E \pm 0.05$	$F \pm 0.5$
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.

## TCRB0605) Electrical Characteristics

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (KHz)	DCR ( $\Omega$ )(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°C ~ +85°C

Inductance drop = 10% typ. at IDC.

## ▶ (TCRB0606) Electrical Characteristics

Part Number	Inductance ( $\mu$ H)	Test Freq. (KHz)	DCR ( $\Omega$ )(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.

## ▶ (TCRB0805) Electrical Characteristics

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (KHz)	DCR ( $\Omega$ )(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.

## ▶ (TCRB0807) Electrical Characteristics

Part Number	Inductance ( $\mu\text{H}$ )	Test Freq. (KHz)	DCR ( $\Omega$ )(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.

## ▶ (TCRB0809) Electrical Characteristics

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

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Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω)(max)	IDC (A)(max)
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.

## ▶ How to Order

TCRB

❶

UL

❷

0605

❸

220

❹

220

❺

❶ Part Number: TCRB

❷ TUBE

Code	TUBE
V	UL
P	PVC
NONE	NO TUBE

❸ Size

Code	Size
0605	6.50×5.5mm
0606	6.50×6.50mm
0805	8.30×5.5mm
0807	8.30×7.50mm
0809	8.30×9.50mm

❹ Inductance

Code	Inductance
1R0	1.00μH
100	10.00μH
101	100.00μH
102	1000.00μH

❺ Tolerance

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

*Back to 1st Page - Coil Choke Inductors Radial (TCRB)*