

**NEW!**

# Power Inductors – RFC0810 Series



- Low cost, high current power inductors
- 34 inductance values; 33  $\mu$ H to 18 mH
- Flame retardant polyolefin wrap to protect the winding.

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over copper over steel. Other terminations available at additional cost

**Environmental** RoHS compliant, halogen free

**Weight** 2.0 – 2.3 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with Irms current,  $+85^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  with derated current

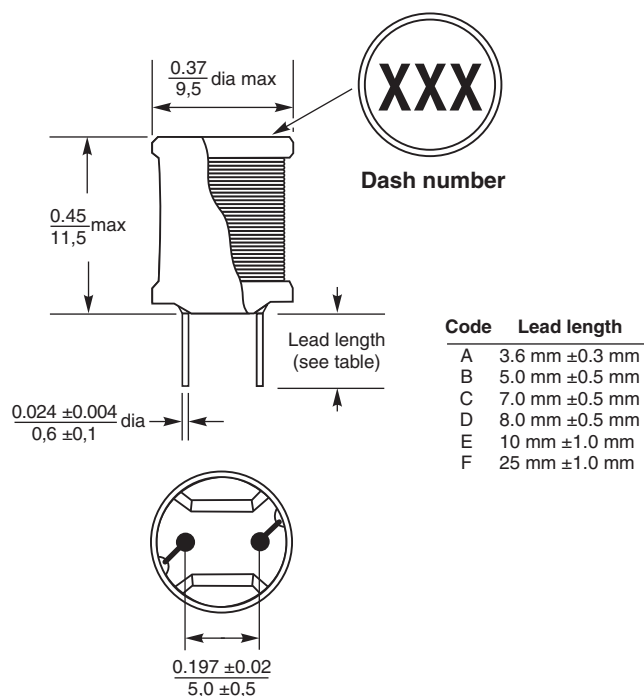
**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .  
Tray or tape packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**  
38 per billion hours / 26,315,789 hours, calculated per Telcordia SRA-332

**Packaging** 150 parts per tray (except parts with 25 mm lead length);  
Parts with 25 mm lead length: in fanfold tape, 800 parts per box

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** +65-6484 8412 sales@coilcraft.com.sg

Document 1108-1 Revised 01/21/14

© Coilcraft Inc. 2014

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

**NEW!**

# Power Inductors – RFC0810 Series



| Part number <sup>1</sup> | Inductance <sup>2</sup><br>±10% (µH) | DCR (Ohms) |       | SRF typ <sup>3</sup><br>(MHz) | Isat (A) <sup>4</sup> |          |          | Irms (A) <sup>5</sup> |           |
|--------------------------|--------------------------------------|------------|-------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
|                          |                                      | typ        | max   |                               | 10% drop              | 20% drop | 30% drop | 20°C rise             | 40°C rise |
| RFC0810B-333KE           | 33                                   | 0.065      | 0.075 | 9.0                           | 3.50                  | 3.96     | 4.25     | 2.10                  | 3.00      |
| RFC0810B-393KE           | 39                                   | 0.070      | 0.085 | 8.7                           | 3.20                  | 3.66     | 3.95     | 2.00                  | 2.75      |
| RFC0810B-473KE           | 47                                   | 0.080      | 0.095 | 7.5                           | 2.90                  | 3.33     | 3.60     | 1.85                  | 2.60      |
| RFC0810B-563KE           | 56                                   | 0.110      | 0.125 | 7.3                           | 2.65                  | 3.05     | 3.27     | 1.55                  | 2.15      |
| RFC0810B-683KE           | 68                                   | 0.120      | 0.140 | 6.3                           | 2.45                  | 2.80     | 3.02     | 1.50                  | 2.10      |
| RFC0810B-823KE           | 82                                   | 0.160      | 0.185 | 5.2                           | 2.20                  | 2.52     | 2.72     | 1.30                  | 1.80      |
| RFC0810B-104KE           | 100                                  | 0.185      | 0.210 | 5.0                           | 2.00                  | 2.27     | 2.43     | 1.20                  | 1.70      |
| RFC0810B-124KE           | 120                                  | 0.210      | 0.240 | 4.9                           | 1.80                  | 2.08     | 2.24     | 1.15                  | 1.60      |
| RFC0810B-154KE           | 150                                  | 0.280      | 0.325 | 4.1                           | 1.60                  | 1.86     | 2.01     | 1.00                  | 1.40      |
| RFC0810B-184KE           | 180                                  | 0.310      | 0.355 | 3.8                           | 1.50                  | 1.75     | 1.88     | 0.95                  | 1.30      |
| RFC0810B-224KE           | 220                                  | 0.400      | 0.460 | 3.0                           | 1.30                  | 1.55     | 1.67     | 0.82                  | 1.15      |
| RFC0810B-274KE           | 270                                  | 0.460      | 0.530 | 2.9                           | 1.20                  | 1.40     | 1.51     | 0.75                  | 1.05      |
| RFC0810B-334KE           | 330                                  | 0.520      | 0.600 | 2.6                           | 1.10                  | 1.27     | 1.40     | 0.70                  | 1.00      |
| RFC0810B-394KE           | 390                                  | 0.705      | 0.810 | 2.4                           | 1.03                  | 1.18     | 1.28     | 0.60                  | 0.85      |
| RFC0810B-474KE           | 470                                  | 0.795      | 0.915 | 2.2                           | 0.93                  | 1.06     | 1.15     | 0.58                  | 0.80      |
| RFC0810B-564KE           | 560                                  | 0.895      | 1.05  | 2.0                           | 0.84                  | 0.97     | 1.06     | 0.55                  | 0.75      |
| RFC0810B-684KE           | 680                                  | 1.15       | 1.30  | 1.7                           | 0.78                  | 0.90     | 0.96     | 0.48                  | 0.66      |
| RFC0810B-824KE           | 820                                  | 1.55       | 1.80  | 1.6                           | 0.70                  | 0.82     | 0.87     | 0.40                  | 0.57      |
| RFC0810B-105KE           | 1000                                 | 1.70       | 1.95  | 1.5                           | 0.64                  | 0.73     | 0.78     | 0.38                  | 0.54      |
| RFC0810B-125KE           | 1200                                 | 2.35       | 2.70  | 1.2                           | 0.58                  | 0.66     | 0.71     | 0.33                  | 0.46      |
| RFC0810B-155KE           | 1500                                 | 2.70       | 3.10  | 1.1                           | 0.53                  | 0.59     | 0.64     | 0.31                  | 0.43      |
| RFC0810B-185KE           | 1800                                 | 3.00       | 3.45  | 1.0                           | 0.48                  | 0.55     | 0.59     | 0.29                  | 0.41      |
| RFC0810B-225KE           | 2200                                 | 4.10       | 4.70  | 0.93                          | 0.43                  | 0.49     | 0.52     | 0.25                  | 0.35      |
| RFC0810B-275KE           | 2700                                 | 4.70       | 5.40  | 0.89                          | 0.39                  | 0.45     | 0.48     | 0.23                  | 0.33      |
| RFC0810B-335KE           | 3300                                 | 6.15       | 7.10  | 0.88                          | 0.36                  | 0.40     | 0.43     | 0.20                  | 0.29      |
| RFC0810B-395KE           | 3900                                 | 7.10       | 8.15  | 0.84                          | 0.33                  | 0.37     | 0.40     | 0.185                 | 0.26      |
| RFC0810B-475KE           | 4700                                 | 8.05       | 9.25  | 0.78                          | 0.31                  | 0.35     | 0.37     | 0.180                 | 0.25      |
| RFC0810B-565KE           | 5600                                 | 9.90       | 11.5  | 0.59                          | 0.28                  | 0.31     | 0.33     | 0.150                 | 0.22      |
| RFC0810B-685KE           | 6800                                 | 11.5       | 13.0  | 0.55                          | 0.26                  | 0.28     | 0.31     | 0.145                 | 0.205     |
| RFC0810B-825KE           | 8200                                 | 15.0       | 17.0  | 0.48                          | 0.23                  | 0.26     | 0.28     | 0.130                 | 0.180     |
| RFC0810B-106KE           | 10,000                               | 17.0       | 19.5  | 0.45                          | 0.21                  | 0.23     | 0.25     | 0.122                 | 0.170     |
| RFC0810B-126KE           | 12,000                               | 21.5       | 24.5  | 0.40                          | 0.19                  | 0.22     | 0.23     | 0.108                 | 0.150     |
| RFC0810B-156KE           | 15,000                               | 24.5       | 27.0  | 0.36                          | 0.17                  | 0.20     | 0.21     | 0.100                 | 0.142     |
| RFC0810B-186KE           | 18,000                               | 27.5       | 30.0  | 0.34                          | 0.16                  | 0.18     | 0.20     | 0.097                 | 0.135     |

1. When ordering, please specify **lead length** and **termination** codes:

RFC0810B-183E

**Lead length:** A = 3.6 mm ±0.3 mm (special order)

B = 5.0 mm ±0.5 mm

C = 7.0 mm ±0.5 mm (special order)

D = 8.0 mm ±0.5 mm (special order)

E = 10.0 mm ±1.0 mm (special order)

F = 25.0 mm ±1.0 mm, packaged in fanfold tape, 800 parts per box (special order)

**Termination:** E = RoHS compliant tin-silver over tin over copper over steel.

Special order: S = non-RoHS tin-lead (63/37).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR-meter or equivalent.

3. SRF measured using Agilent/HP 4191A or equivalent.

4. DC current at which the inductance drops the specified amount from its value without current.

5. Current that causes the specified temperature rise from 25°C ambient.

6. Electrical specifications at 25°C.



www.coilcraft.com

**US** +1-847-639-6400 sales@coilcraft.com

**UK** +44-1236-730595 sales@coilcraft-europe.com

**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw

**China** +86-21-6218 8074 sales@coilcraft.com.cn

**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 1108-2 Revised 01/21/14

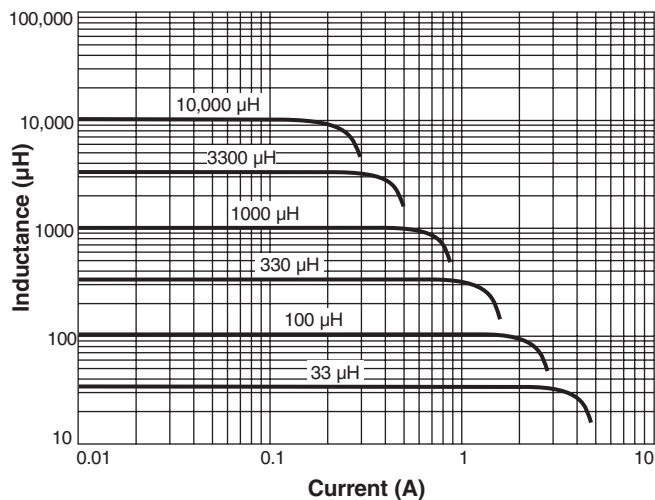
© Coilcraft Inc. 2014

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

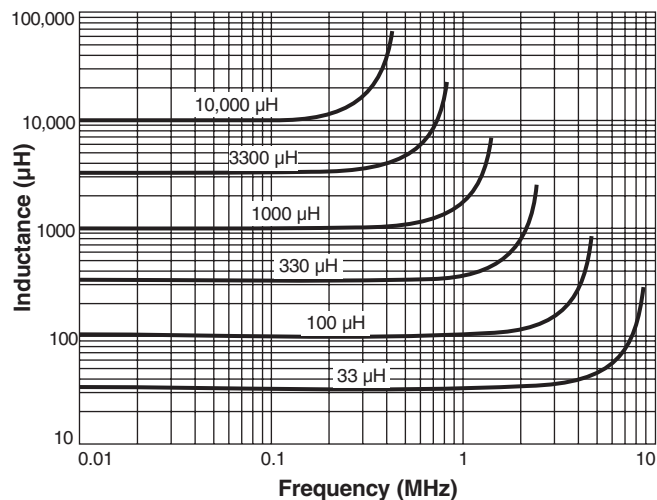
**NEW!**

# Power Inductors – RFC0810 Series

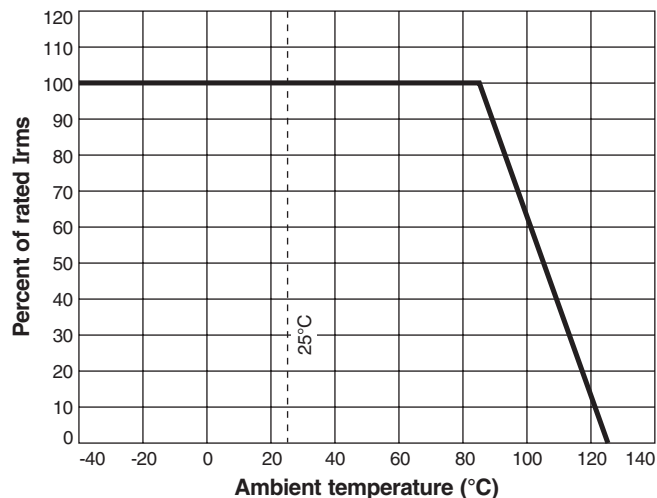
## Typical L vs Current



## Typical L vs Frequency



## Typical Irms derating


[www.coilcraft.com](http://www.coilcraft.com)

**US** +1-847-639-6400 [sales@coilcraft.com](mailto:sales@coilcraft.com)  
**UK** +44-1236-730595 [sales@coilcraft-europe.com](mailto:sales@coilcraft-europe.com)  
**Taiwan** +886-2-2264 3646 [sales@coilcraft.com.tw](mailto:sales@coilcraft.com.tw)  
**China** +86-21-6218 8074 [sales@coilcraft.com.cn](mailto:sales@coilcraft.com.cn)  
**Singapore** + 65-6484 8412 [sales@coilcraft.com.sg](mailto:sales@coilcraft.com.sg)

Document 1108-3 Revised 01/21/14

© Coilcraft Inc. 2014

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.