Power Inductors – RFC0807BV



- High voltage rating of 800 V – significantly higher than similar parts in the market
- Ideal for high-voltage / high-current battery management systems, as well as universal off-line (non-isolated) AC/DC power supplies for industrial and automotive applications
- AEC-Q200 Grade 3 (-40° to +85°C)

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 1.30 – 1.50 g
Operating voltage 800 V
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise). Derating.
Storage temperature Component: –40°C to +125°C.
Tray or tape packaging: –40°C to +80°C
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
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 to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] ±10% (µH)	DCR (Ohms) typ	DCR (Ohms) max	SRF typ[3] (MHz)	Isat (A)[4] 10% drop	Isat (A)[4] 20% drop	Isat (A)[4] 30% drop	Irms (A)[5] 20°C rise	Irms (A)[5] 40°C rise
RFC0807BV-393KE	39	0.219	0.240	11	2.85	3.20	3.40	1.05	1.45
RFC0807BV-473KE	47	0.243	0.267	10.6	2.55	2.87	3.04	0.95	1.35
RFC0807BV-563KE	56	0.275	0.303	9.7	2.35	2.66	2.84	0.90	1.25
RFC0807BV-683KE	68	0.307	0.338	8.4	2.30	2.60	2.74	0.87	1.20
RFC0807BV-823KE	82	0.342	0.376	8.0	2.13	2.37	2.53	0.85	1.15
RFC0807BV-104KE	100	0.396	0.440	7.1	1.98	2.22	2.34	0.75	1.05
RFC0807BV-124KE	120	0.442	0.486	6.7	1.76	2.00	2.12	0.70	0.98
RFC0807BV-154KE	150	0.505	0.560	5.3	1.62	1.82	1.93	0.68	0.90
RFC0807BV-184KE	180	0.580	0.640	4.4	1.42	1.61	1.70	0.65	0.87
RFC0807BV-224KE	220	0.780	0.850	4.1	1.32	1.48	1.57	0.60	0.82
RFC0807BV-274KE	270	0.867	0.960	3.6	1.20	1.34	1.43	0.50	0.70
RFC0807BV-334KE	330	0.975	1.09	3.4	1.08	1.21	1.30	0.47	0.68
RFC0807BV-394KE	390	1.280	1.54	3.3	1.03	1.16	1.23	0.45	0.63
RFC0807BV-474KE	470	1.482	1.65	2.9	0.90	1.02	1.10	0.40	0.55
RFC0807BV-564KE	560	1.68	1.85	2.7	0.85	0.93	1.01	0.38	0.52
RFC0807BV-684KE	680	2.25	2.48	2.5	0.77	0.83	0.92	0.32	0.44
RFC0807BV-824KE	820	2.57	2.83	2.1	0.68	0.77	0.82	0.30	0.40
RFC0807BV-105KE	1000	3.27	3.60	2.0	0.62	0.68	0.72	0.27	0.37
RFC0807BV-125KE	1200	3.73	4.10	1.7	0.56	0.62	0.66	0.25	0.35

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

RFC0807BV-125KE

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 25°C that causes the specified inductance drop from its value without current.
Click for temperature derating information.
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.
6. Electrical specifications at 25°C.

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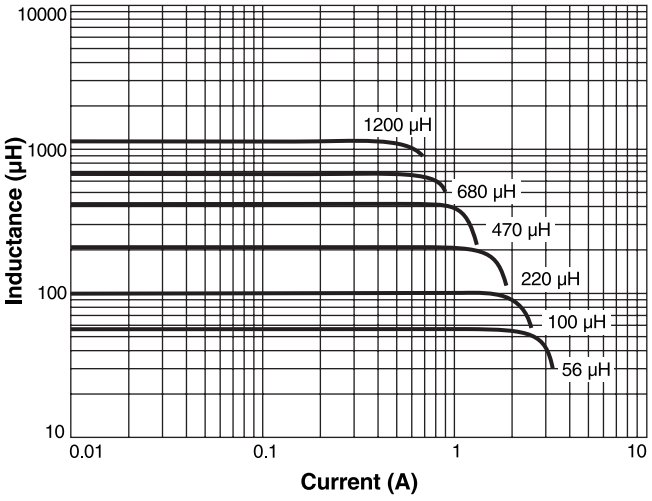
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UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 1645-1 Revised 03/07/22

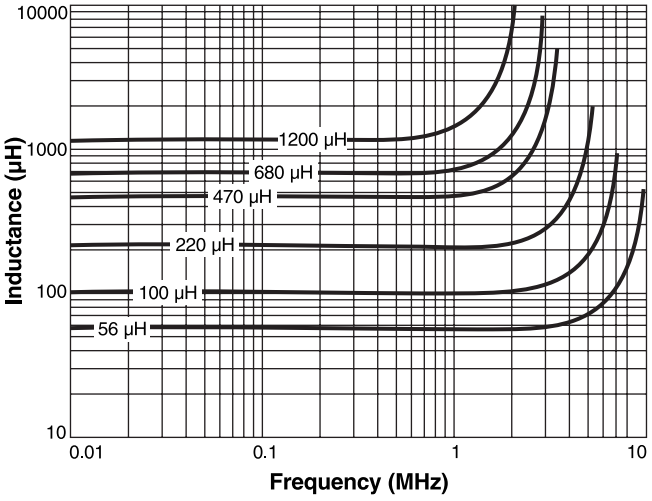
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Power Inductors – RFC0807BV Series

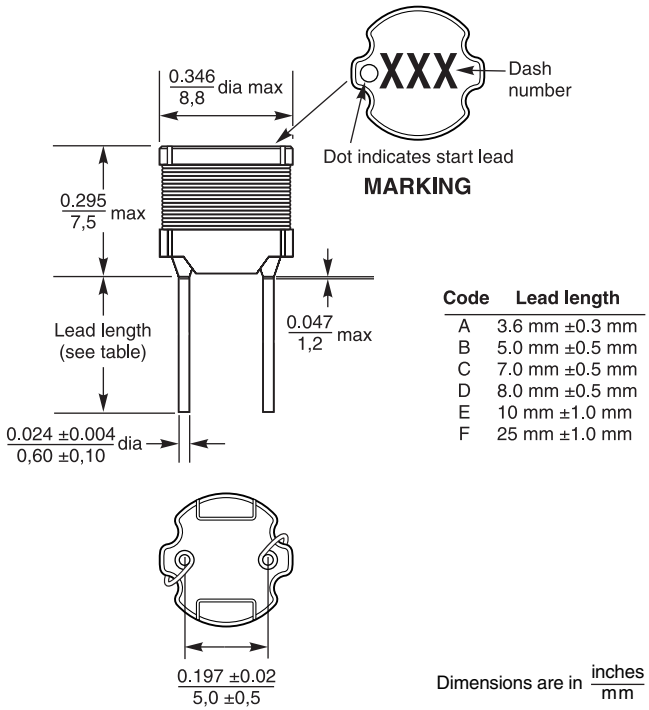
Typical L vs Current



Typical L vs Frequency



Dimensions



Code	Lead length
A	3.6 mm ±0.3 mm
B	5.0 mm ±0.5 mm
C	7.0 mm ±0.5 mm
D	8.0 mm ±0.5 mm
E	10 mm ±1.0 mm
F	25 mm ±1.0 mm

Dimensions are in inches / mm

Coilcraft
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

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