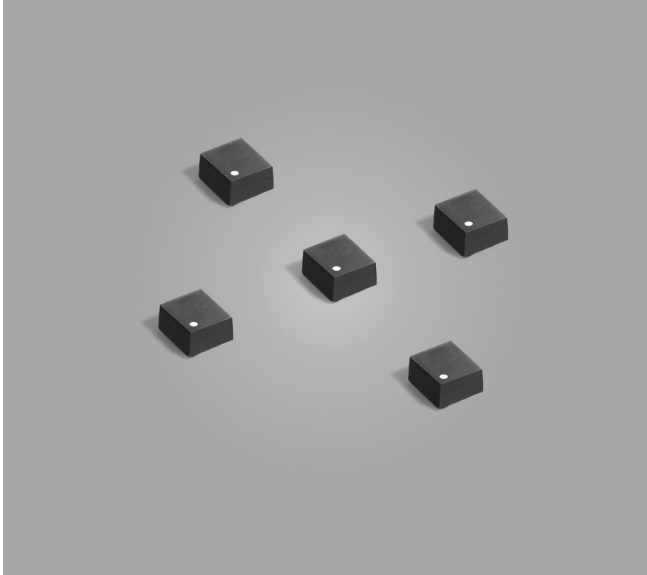


**NEW!**

# Shielded Power Inductors XFL2010



- Ultra-miniature, magnetically shielded power inductors
- Very low DCR, excellent current handling, soft saturation
- AEC-Q200 Grade 1 (–40°C to +125°C)<sup>8</sup>

**Core material** Composite

**Weight** 19 – 21 mg

**Operating voltage** 40 V (higher ratings on request)

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum. Other terminations available at additional cost.

**Ambient temperature** –40°C to +125°C<sup>8</sup> with (40°C rise) Irms current

**Maximum part temperature** +165°C<sup>8</sup> (ambient + temp rise).

**Storage temperature** Component: –55°C to +165°C<sup>8</sup>

Tape and reel packaging: –55°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 2000/7" reel; 7500/13" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.19 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (Ohms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
XFL2010-400ME_	0.04	0.012	0.016	2200	5.50	7.50	8.60	3.40	4.80
XFL2010-121ME_	0.12	0.017	0.022	730	3.00	4.25	4.90	2.70	3.70
XFL2010-221ME_	0.22	0.020	0.025	400	2.10	3.20	3.75	2.30	3.10
XFL2010-381ME_	0.38	0.028	0.033	280	1.70	2.50	3.05	2.10	2.85
XFL2010-601ME_	0.60	0.047	0.054	200	1.30	1.95	2.32	1.75	2.35
XFL2010-821ME_	0.82	0.052	0.061	160	1.05	1.52	1.95	1.60	2.15
XFL2010-102ME_	1.0	0.072	0.083	130	0.95	1.42	1.68	1.30	1.80
XFL2010-152ME_	1.5	0.100	0.115	110	0.75	1.16	1.45	1.15	1.55
XFL2010-222ME_	2.2	0.136	0.156	90	0.70	1.06	1.25	1.00	1.35
XFL2010-332ME_	3.3	0.185	0.213	65	0.60	0.85	1.00	0.88	1.20
XFL2010-472ME_	4.7	0.278	0.320	60	0.42	0.64	0.78	0.68	0.91
XFL2010-682ME_	6.8	0.352	0.405	50	0.39	0.61	0.72	0.58	0.79
XFL2010-822ME_	8.2	0.445	0.511	40	0.38	0.55	0.62	0.56	0.76
XFL2010-103ME_	10	0.517	0.595	36	0.29	0.45	0.56	0.51	0.67
XFL2010-183ME_	18	1.02	1.17	29	0.245	0.370	0.435	0.34	0.46
XFL2010-223ME_	22	1.30	1.50	23	0.190	0.280	0.340	0.31	0.42
XFL2010-333ME_	33	1.86	2.14	18	0.160	0.240	0.285	0.26	0.35
XFL2010-473ME_	47	2.53	2.91	16	0.130	0.200	0.250	0.25	0.31
XFL2010-563ME_	56	3.18	3.66	15	0.120	0.175	0.215	0.20	0.27
XFL2010-683ME_	68	3.46	3.98	13	0.110	0.170	0.210	0.19	0.26
XFL2010-823ME_	82	5.05	5.81	12	0.096	0.150	0.185	0.16	0.21
XFL2010-104ME_	100	6.07	6.98	11	0.092	0.140	0.172	0.15	0.20
XFL2010-224ME_ <sup>8</sup>	220	11.88	13.66	6	0.060	0.094	0.113	0.11	0.14

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

**XFL2010-224MEC**

**Termination: E** = RoHS compliant tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum.

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

**Packaging: C** = 7" machine-ready reel. EIA-481 embossed plastic tape (2000 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (7500 parts per full reel).

2. Inductance tested at 1 MHz, 0.1 Vrms, 0 Adc.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 4395A or equivalent.

5. DC current at 25°C that causes the specified inductance drop from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

7. Electrical specifications at 25°C.

8. -224 rated AEC-Q200 Grade 3. Maximum part temperature 125°C for this part number only.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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 1690-1 Revised 03/15/22

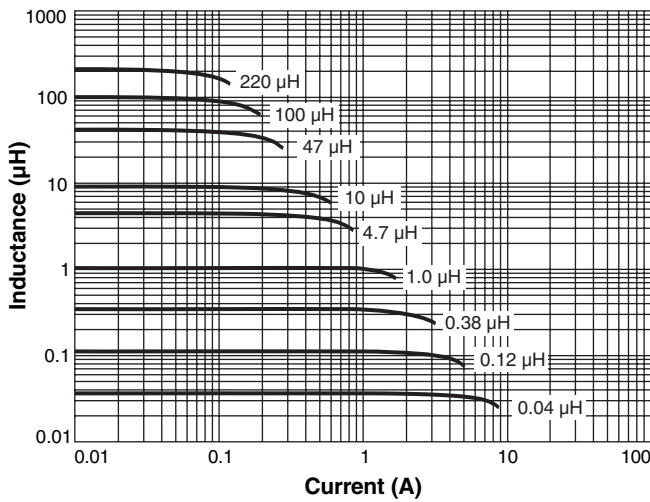
© Coilcraft Inc. 2022

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.

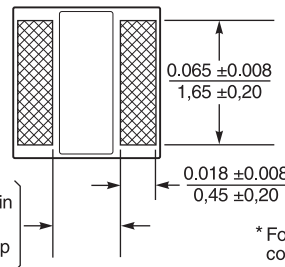
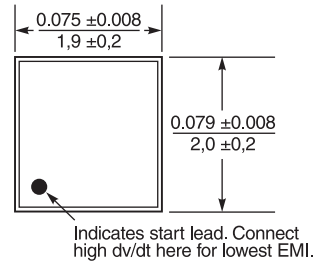
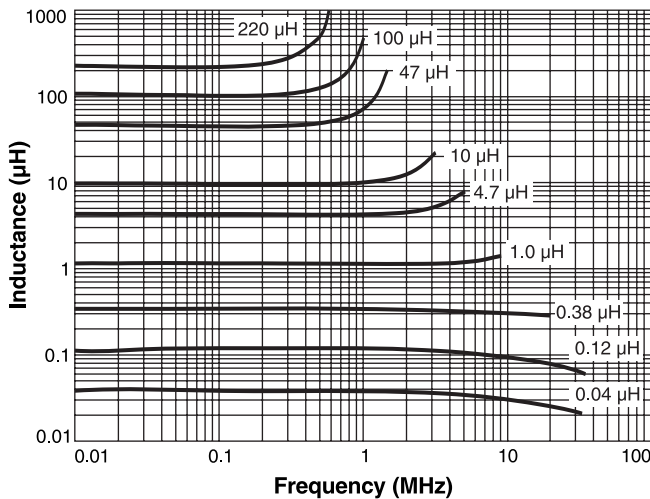


# Shielded Power Inductors – XFL2010 Series

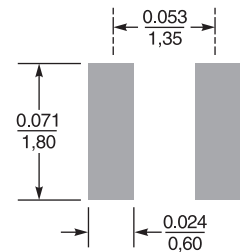
## Typical L vs Current



## Typical L vs Frequency



### Recommended Land Pattern



\* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.

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



**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 1690-2 Revised 03/15/22

© Coilcraft Inc. 2022

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.