

# Shielded Power Inductors AGM2222



- 75% smaller than previous generation
- Very low DCR maintains high efficiency
- Soft saturation with high current handling capability
- Magnetic shielding reduces power losses at high frequency
- Ideal for Bi-directional 12 V – 48 V DC-DC converters
- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant tin-silver over copper

**Core material** Powdered iron

**Weight** 46 – 51 g

**Ambient temperature** –40°C to +125°C with Irms current

**Maximum part temperature** +165°C (ambient + temp rise)

**Storage temperature** Component: –40°C to +165°C.

Tray packaging: –40°C to +80°C

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

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 42 parts per tray

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

Part number	Inductance <sup>1</sup> ±20% (µH)	DCR (mOhms) <sup>2</sup>		SRF typ <sup>3</sup> (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
AGM2222-192ME	1.9	0.62	0.80	65.0	49.0	81.5	110.0	37.0	54.0
AGM2222-222ME	2.2	0.62	0.80	62.0	35.0	60.0	84.0	37.0	54.0
AGM2222-282ME	2.8	0.74	0.85	46.0	41.0	66.5	93.5	33.0	47.0
AGM2222-322ME	3.2	0.74	0.85	45.8	29.0	50.0	71.0	33.0	47.0
AGM2222-392ME	3.9	0.77	0.90	34.0	35.0	57.5	80.0	32.0	45.0
AGM2222-432ME	4.3	0.77	0.90	35.0	23.0	40.0	57.0	32.0	45.0
AGM2222-512ME	5.1	1.10	1.40	33.0	31.0	50.0	71.0	28.0	40.0
AGM2222-562ME	5.6	1.10	1.40	29.5	22.0	38.0	55.0	28.0	40.0
AGM2222-652ME	6.5	1.47	1.80	29.0	27.5	44.0	62.0	25.0	35.0
AGM2222-712ME	7.1	1.47	1.80	29.0	18.0	32.0	46.0	25.0	35.0
AGM2222-802ME	8.0	1.70	2.00	24.5	24.5	40.0	56.0	22.0	32.0
AGM2222-882ME	8.8	1.70	2.00	24.5	17.0	29.0	42.0	22.0	32.0
AGM2222-103ME	10.0	2.08	2.50	23.0	15.0	26.0	37.0	21.0	30.0

1. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.

2. DCR measured on a micro-ohmmeter.

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

4. DC current at 25°C that causes an inductance drop of 30% (typ) from its value without current.

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.

6. Electrical specifications at 25°C.



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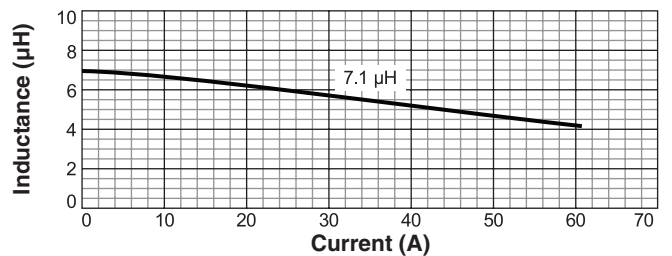
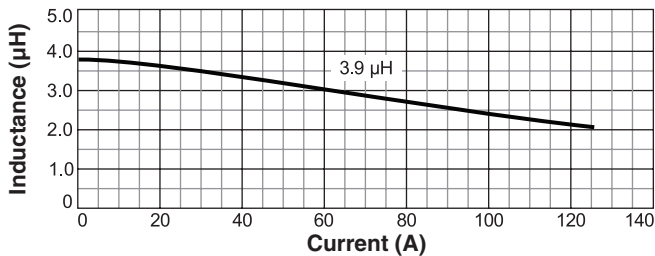
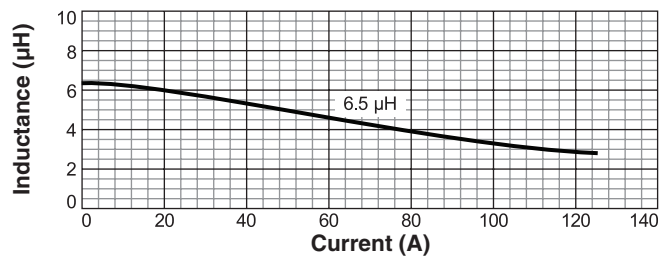
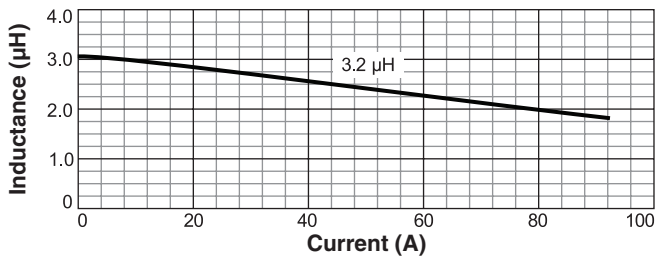
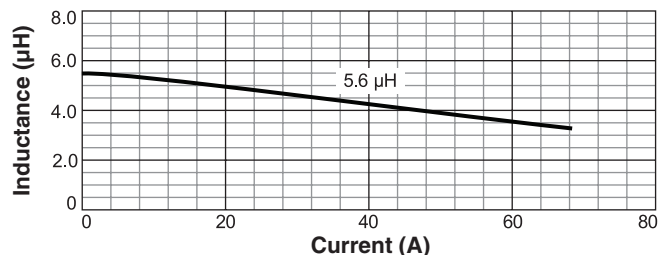
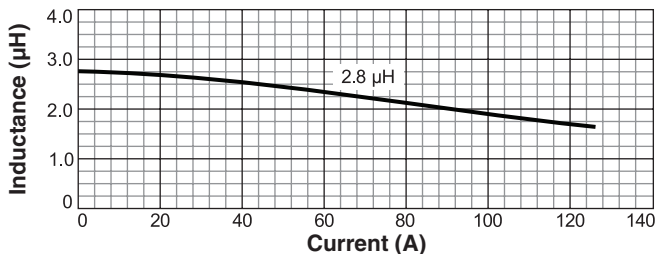
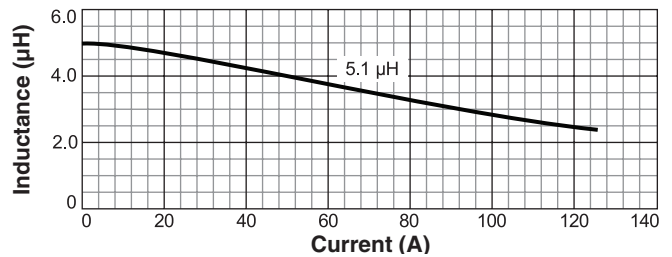
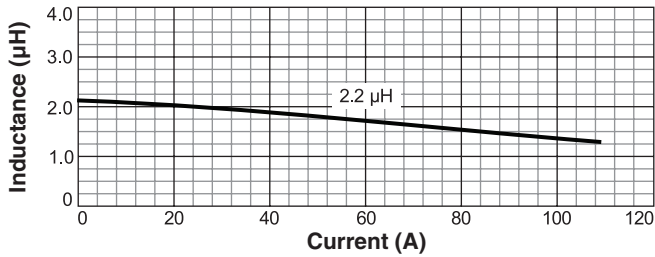
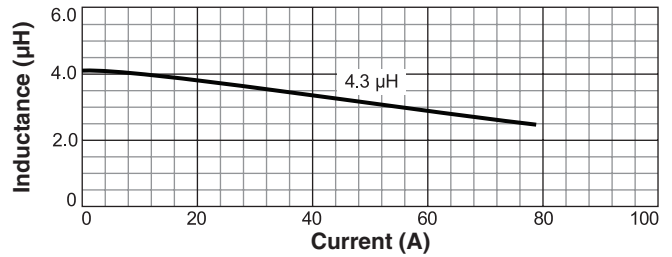
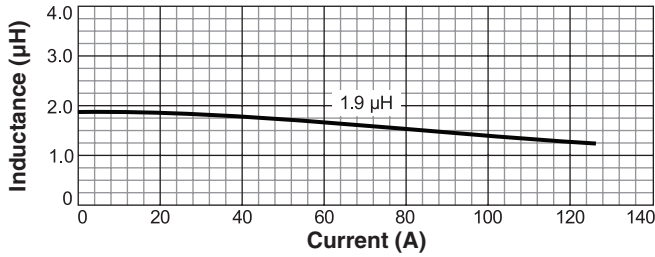
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# AGM2222 Shielded Power Inductors

## L vs Current



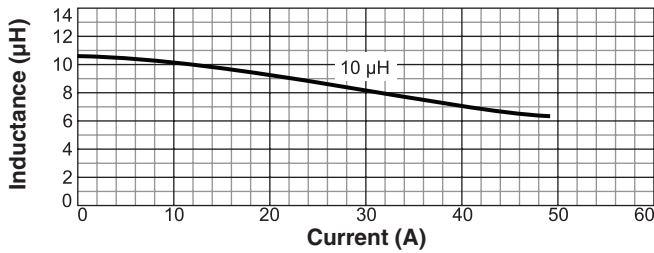
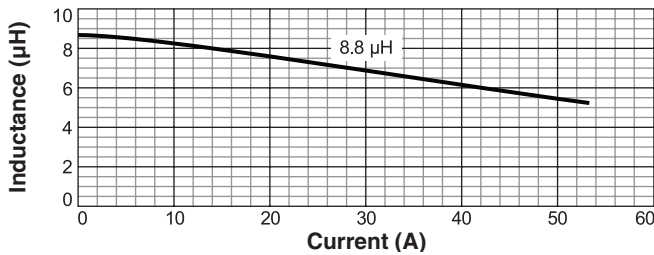
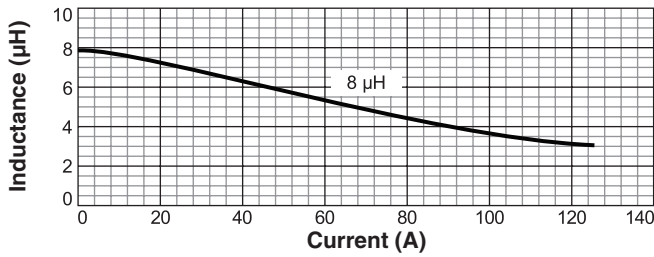
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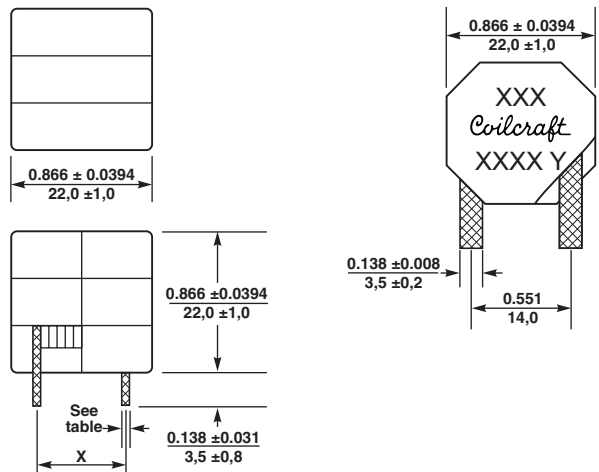
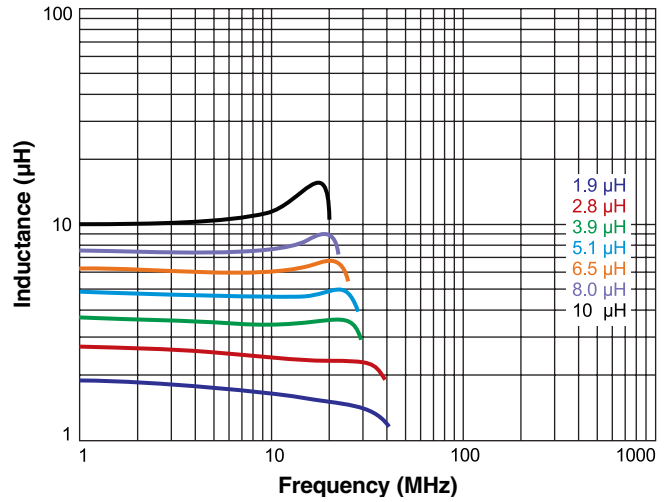


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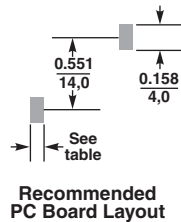
## L vs Current



## L vs Frequency



X-Lead Centers ±0.020/0,5 (in/mm)	Dash number	Terminal dimension ±0.008/0,203 (in/mm)	Through hole dimension (in/mm)
0.562/14.3	-192	0.098/2,5	0.118/3,0
0.562/14.3	-222	0.098/2,5	0.118/3,0
0.562/14.3	-282	0.079/2,0	0.10/2,54
0.562/14.3	-322	0.079/2,0	0.10/2,54
0.562/14.3	-392	0.079/2,0	0.10/2,54
0.562/14.3	-432	0.079/2,0	0.10/2,54
0.579/14,7	-512	0.069/1,75	0.089/2,25
0.579/14,7	-562	0.069/1,75	0.089/2,25
0.579/14,7	-652	0.059/1,5	0.079/2,0
0.579/14,7	-712	0.059/1,5	0.079/2,0
0.602/15,3	-802	0.053/1,35	0.073/1,85
0.602/15,3	-882	0.053/1,35	0.073/1,85
0.602/15,3	-103	0.047/1,2	0.067/1,7



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



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