

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 (–40°C to +125°C)

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)

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 ¹ ±20% (µH) | DCR (mOhms) ² | | SRF typ ³ (MHz) | Isat (A) ⁴ | | | Irms (A) ⁵ | |
|---------------|--------------------------------------|--------------------------|------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
| | | 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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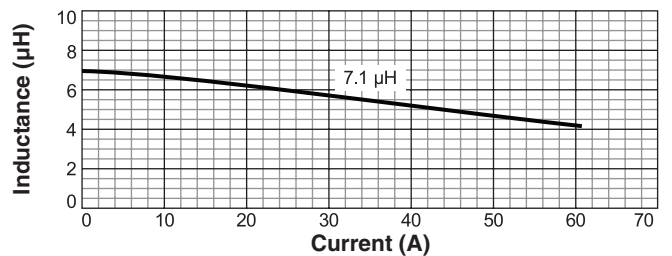
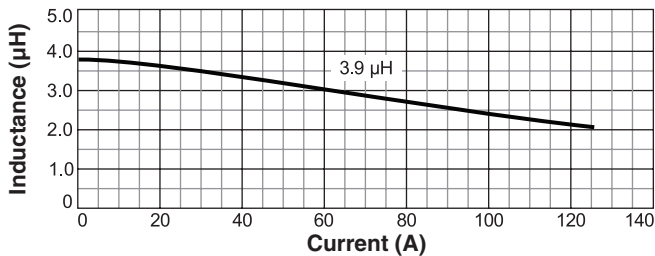
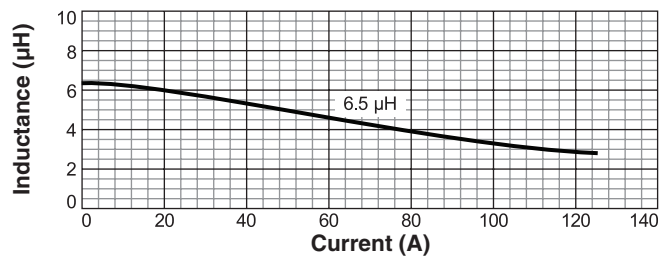
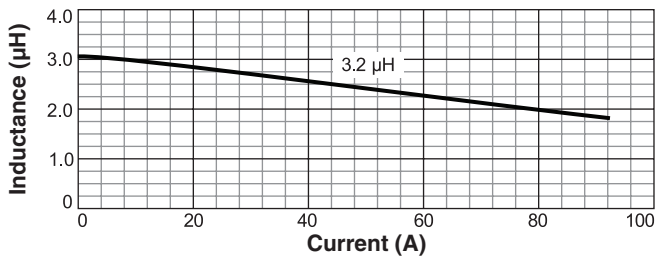
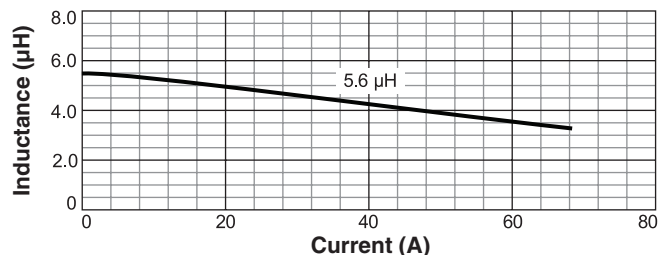
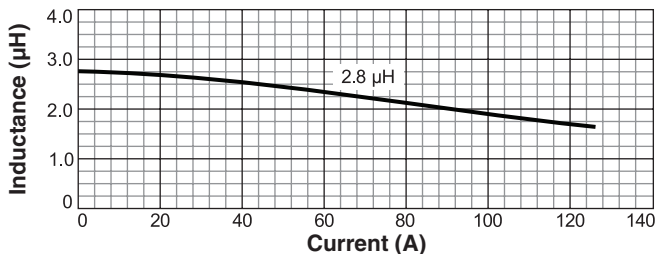
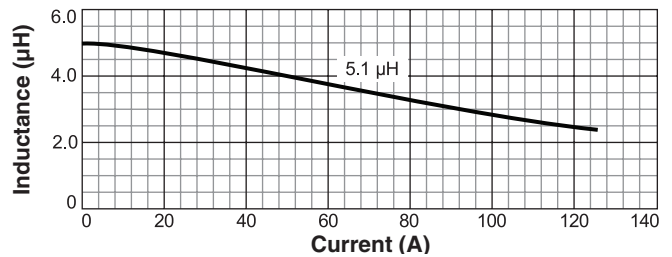
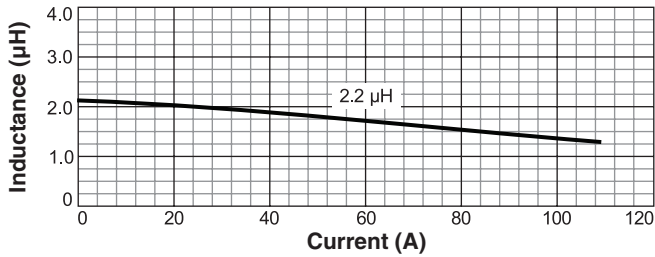
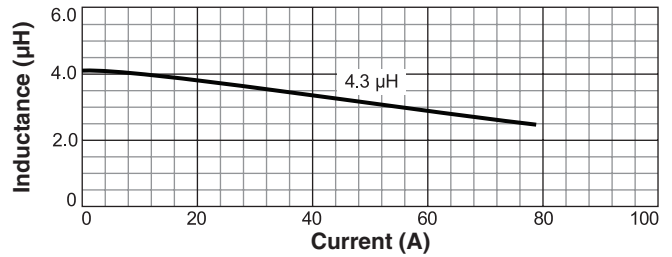
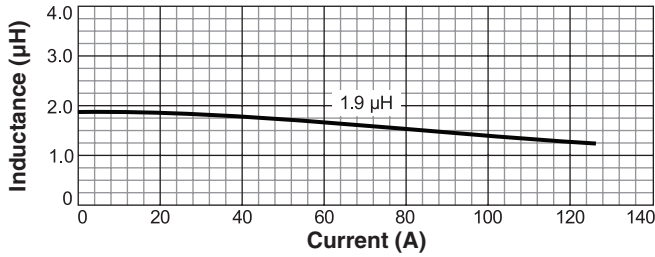
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AGM2222 Shielded Power Inductors

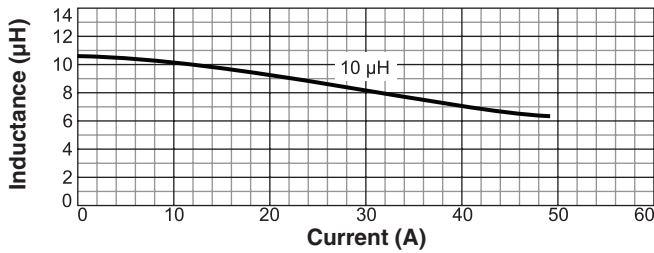
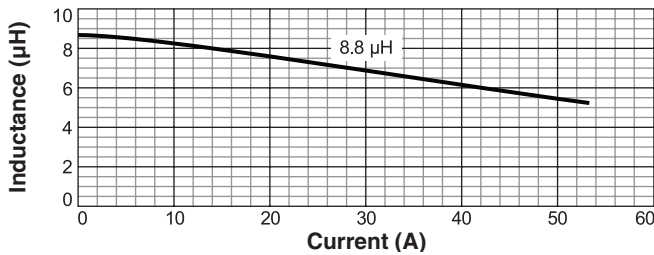
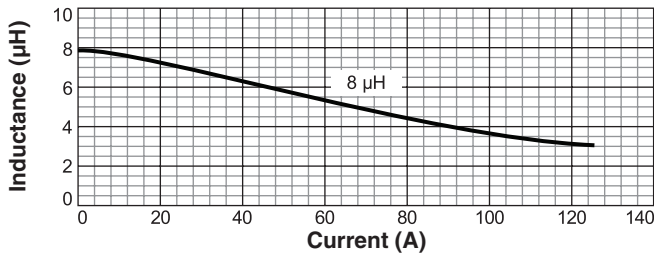
L vs Current



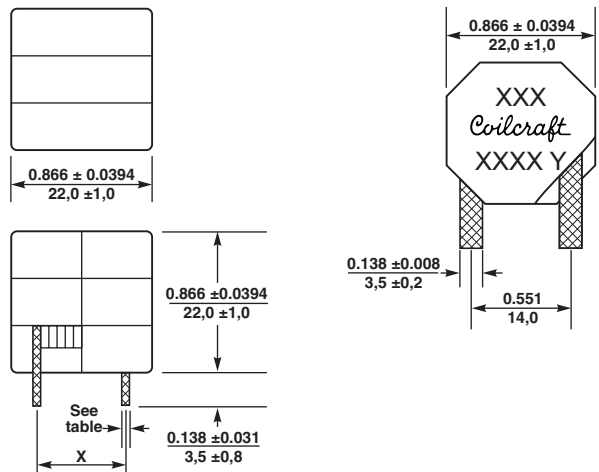
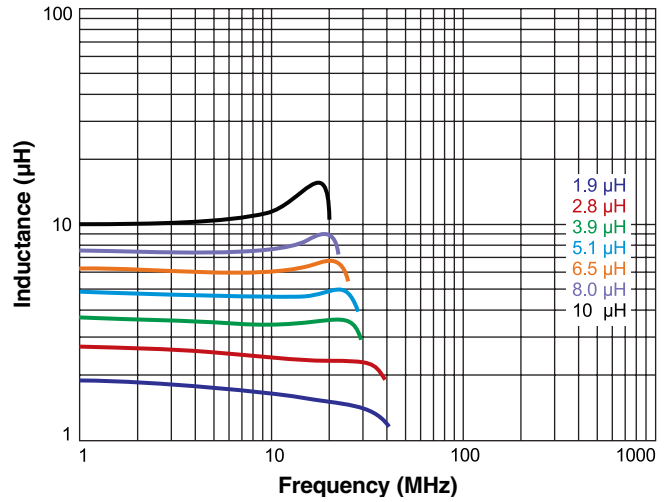


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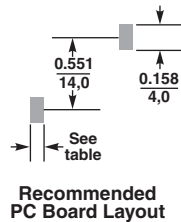
L vs Current



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 inches
mm