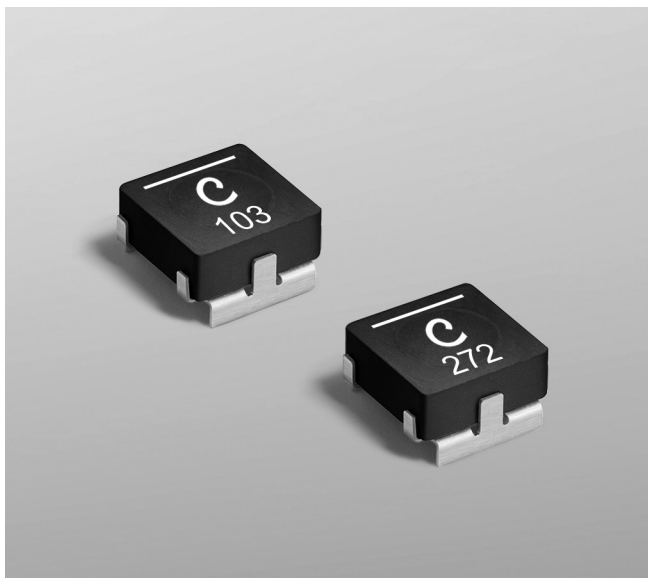


# Raised Power Inductors XAR7030



- High current, very low DCR, soft saturation
- Unique off-the-board design provides 1.5 mm clearance for parts to be mounted underneath
- Magnetically shielded for high-density designs

**Core material** Composite

**Environmental** RoHS compliant, halogen free

**Terminations** RoHS compliant matte tin over nickel over phos bronze

**Weight** 1.06 g

**Ambient temperature** -40°C to +165°C with Irms current

**Maximum part temperature** +125°C (ambient + temp rise)

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

Tape and reel packaging: -40°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)

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

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

**Packaging** 250/7" reel; 1000/13" reel Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 4.7 mm pocket depth

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

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (mOhms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat <sup>5</sup> (A)	Irms (A) <sup>6</sup>	
		typ	max			20°C rise	40°C rise
XAR7030-161ME_	0.16	1.26	1.40	158	60.0	13.5	18.6
XAR7030-301ME_	0.30	1.75	1.92	101	41.0	13.5	18.6
XAR7030-501ME_	0.50	3.00	3.30	72	36.0	13.5	17.5
XAR7030-102ME_	1.0	4.55	5.00	49	28.0	10.0	14.0
XAR7030-132ME_	1.3	7.60	8.36	51	23.5	8.0	11.0
XAR7030-222ME_	2.2	13.70	15.07	40	18.0	6.2	8.7
XAR7030-272ME_	2.7	15.70	17.30	29	12.8	4.9	7.1
XAR7030-332ME_	3.3	19.50	21.45	29	12.3	4.8	6.5
XAR7030-472ME_	4.7	26.10	30.00	21	10.1	4.0	5.7
XAR7030-562ME_	5.6	28.10	32.32	17	9.8	4.0	5.7
XAR7030-682ME_	6.8	45.00	51.57	15	8.7	3.0	4.1
XAR7030-822ME_	8.2	53.00	60.95	15	8.4	2.9	4.0
XAR7030-103ME_	10	60.40	69.46	12	7.7	2.1	4.0

## Irms Testing

Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.

1. When ordering, please specify **packaging** code:

**XAR7030-103MEC**

**Packaging: C** = 7" machine-ready reel. EIA-481 embossed plastic tape 250 parts per full reel).

**B** = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked 1000 parts per full reel).

2. Inductance tested at 100 kHz, 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 which the inductance drops the 30% (typ) from its value without current.

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

7. Electrical specifications at 25°C.

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



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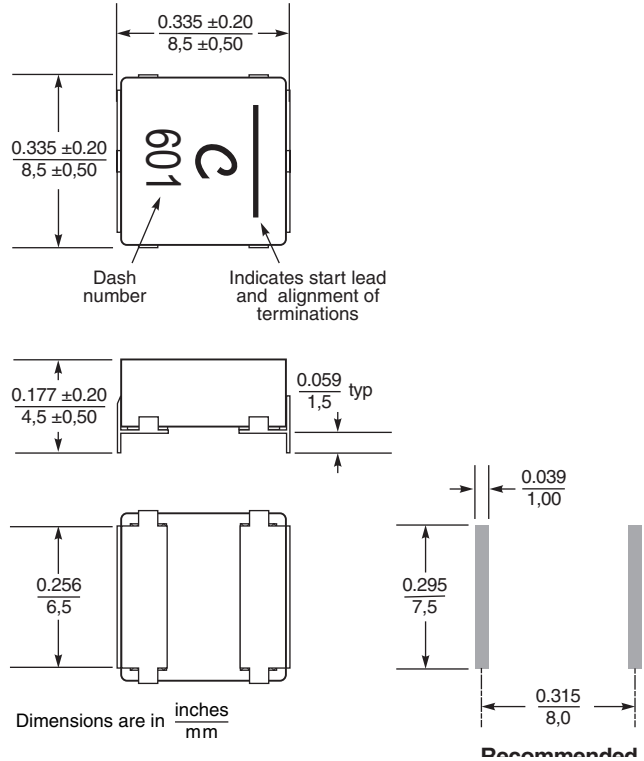
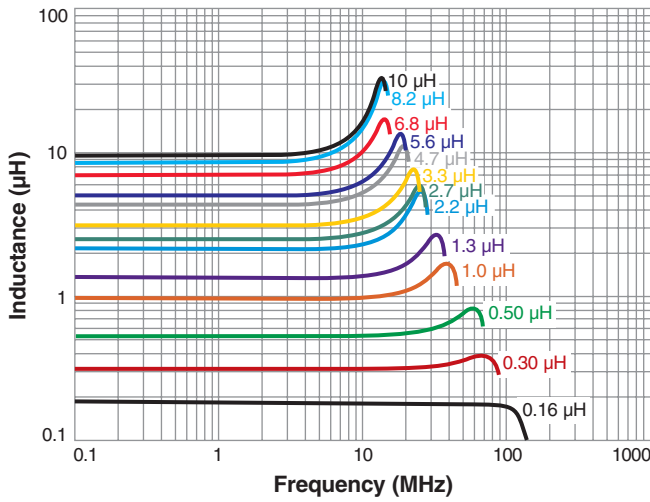
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# Shielded Power Inductors – XAR7030 Series

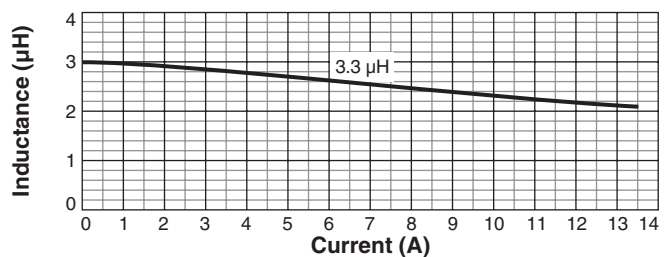
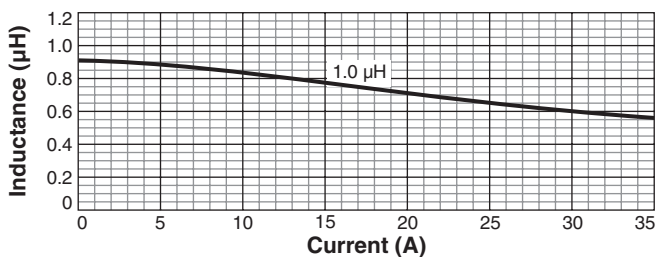
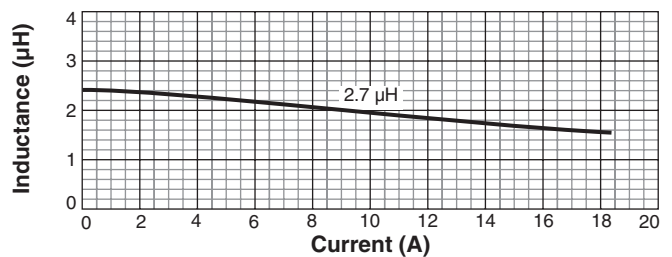
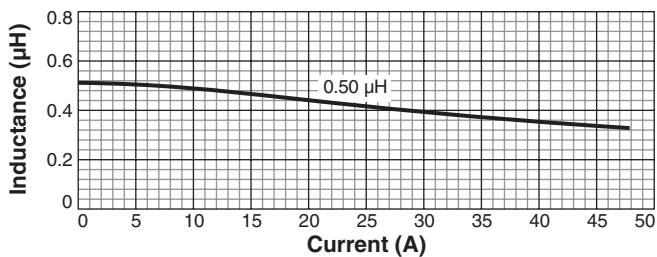
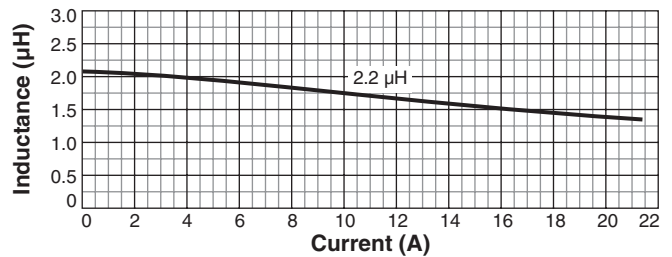
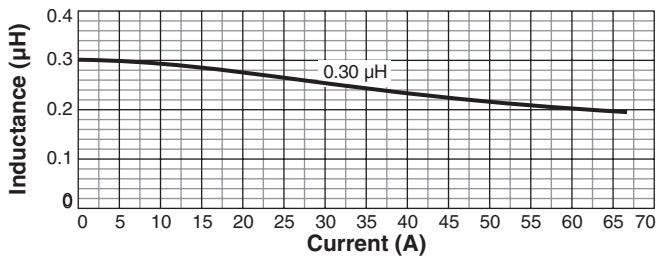
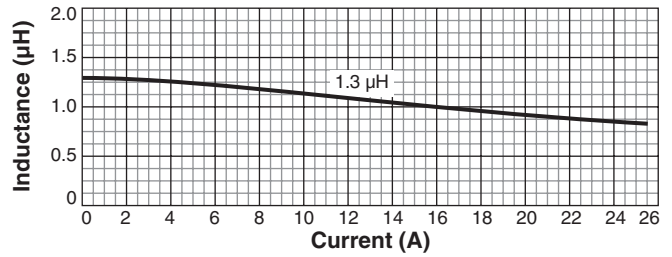
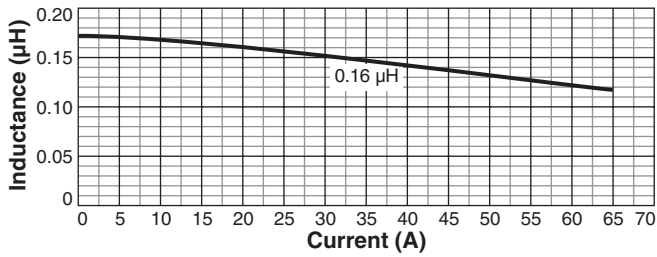
## Typical L vs Frequency





# Shielded Power Inductors – XAR7030 Series

## L vs Current





# Shielded Power Inductors – XAR7030 Series

## L vs Current

