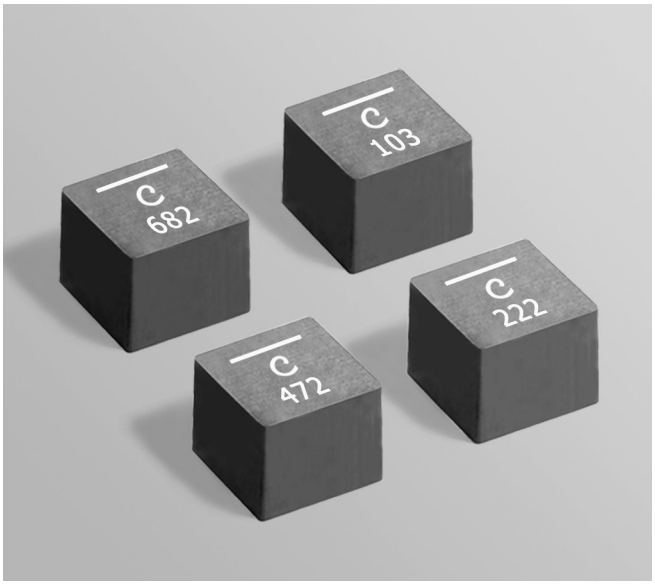
NEW!

Shielded Power Inductors – XAL8080



- High current – up to 24 A
- Very low DCR – as low as 4.08 mOhms
- Soft saturation

Core material Composite

Environmental RoHS compliant, halogen free

Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.

Weight 3 g

Ambient temperature –40°C to +90°C with Irms current, +90°C to +130°C with derated current.

Storage temperature Component: –40°C to +130°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)

Mean Time Between Failures (MTBF) 26,315,789 hours

Packaging 450/13″ reel Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 8.36 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number[1]	Inductance[2] ±20% (µH)	DCR (mOhms)[3] typ	DCR (mOhms)[3] max	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
XAL8080-102ME_	1.0	2.11	2.33	49.22	13.0	22.2	31.3	24.9	34.1
XAL8080-222ME_	2.2	4.08	4.49	36.73	9.8	17.2	24.0	16.0	21.5
XAL8080-472ME_	4.7	8.89	9.77	24.14	7.0	12.3	17.4	10.5	14.6
XAL8080-682ME_	6.8	13.2	14.5	20.64	5.6	9.8	14.0	8.0	11.3
XAL8080-103ME_	10	21.0	23.1	15.63	4.3	7.7	10.9	6.6	8.7

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

XAL8080-103MED

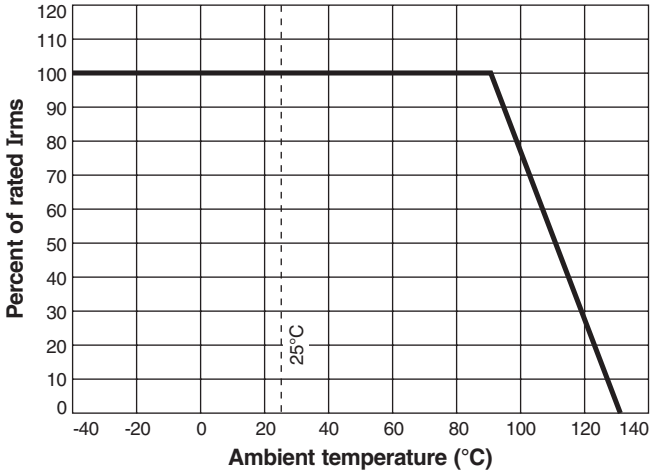
Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape. (450 parts per full reel).

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.

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 specified amount 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.

Irms Derating



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.

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Document 839-1 Revised 04/16/12

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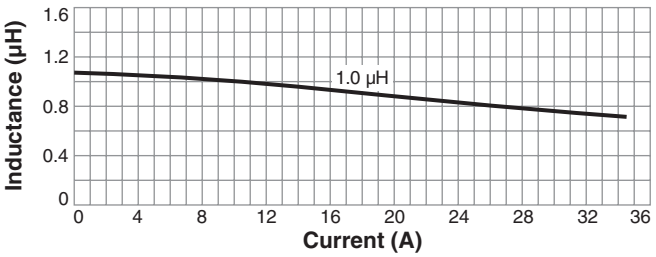
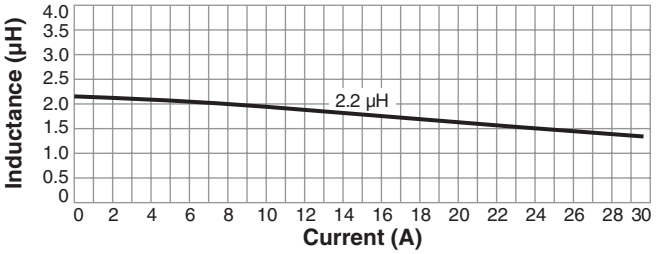
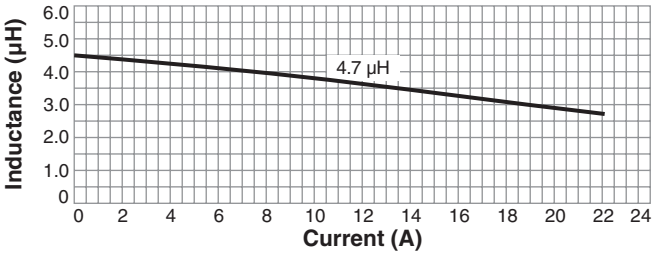
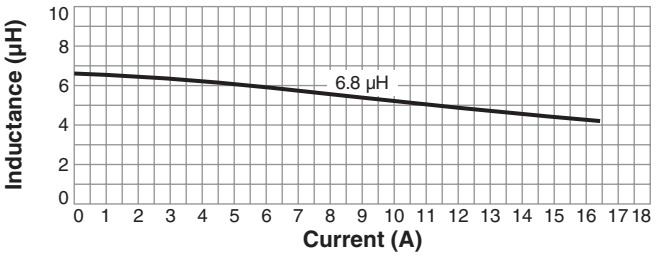
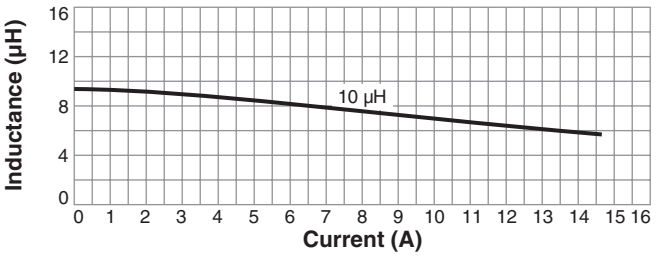
L vs Current



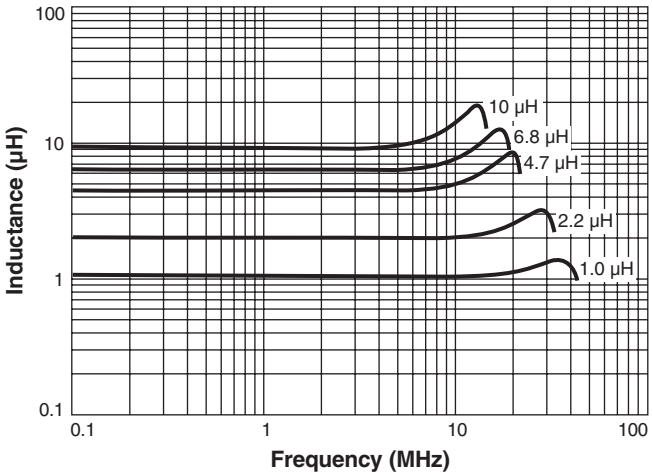


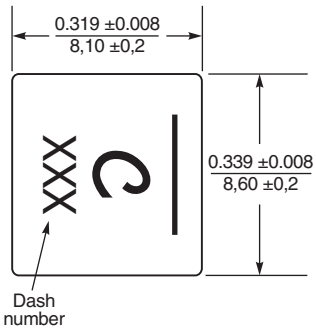


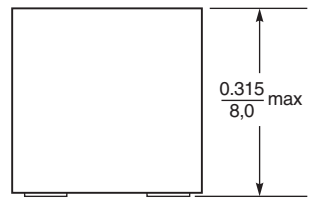




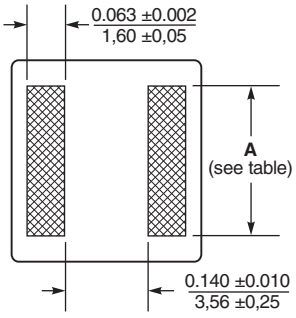
L vs Frequency

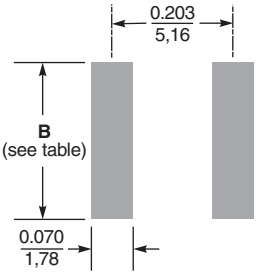






Dash number	A ±0.008 in ±0,20 mm (in / mm)	B (in / mm)
-102	0.264 / 6.71	0.288 / 7.31
-222	0.256 / 6.51	0.276 / 7.01
-472	0.245 / 6.21	0.258 / 6.56
-682	0.237 / 6.01	0.247 / 6.26
-103	0.233 / 5.91	0.241 / 6.11





Recommended Land Pattern

Dimensions are in inches / mm

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Document 839-2 Revised 04/16/12

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