Shielded Power Inductors XAL1510

- High current; very low DCR
- AEC-Q200 Grade 1 qualified (–40°C to +125°C ambient)
- Soft saturation makes them ideal for VRM/VRD applications.

Core material Composite
Core and winding loss Go to online calculator
Environmental RoHS compliant, halogen free
Terminations RoHS compliant tin-silver over copper. Other terminations available at additional cost.
Weight 12.4 – 15.0 g
Ambient temperature –40°C to +125°C with (40°C rise) Irms current.
Maximum part temperature +165°C (ambient + temp rise). Derating.
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 150/13″ reel Plastic tape: 32 mm wide, 0.3 mm thick, 24 mm pocket spacing, 10.26 mm pocket depth (**all except -333**) 11.26 mm pocket depth (**-333 only**).
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] ±20% (µH)	DCR (mOhms)[3] typ	DCR (mOhms)[3] max	SRF typ[4] (MHz)	Isat[5] (A)	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
XAL1510-472ME_	4.7	3.35	3.80	12.7	39.0	21	29
XAL1510-682ME_	6.8	4.17	4.60	11.5	36.0	19	26
XAL1510-822ME_	8.2	6.00	7.50	10.8	30.0	18	24
XAL1510-103ME_	10	6.80	9.00	10.1	26.3	16	22
XAL1510-153ME_	15	9.17	12.4	8.0	23.0	13	18
XAL1510-223ME_	22	14.5	16.0	6.3	18.7	10.5	14
XAL1510-333ME_	33	18.7	20.0	5.8	16.7	8.6	12

1. When ordering, please specify **packaging** code:
   XAL1510-103MED
   Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape (150 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 D 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 25°C that causes an inductance drop of 30% (typ) from its value without current.
   Click for temperature derating information.
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. Click for temperature derating information.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

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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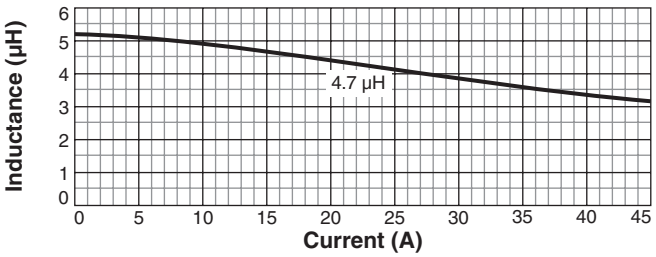
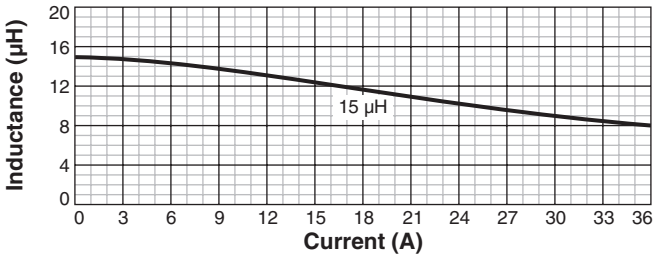
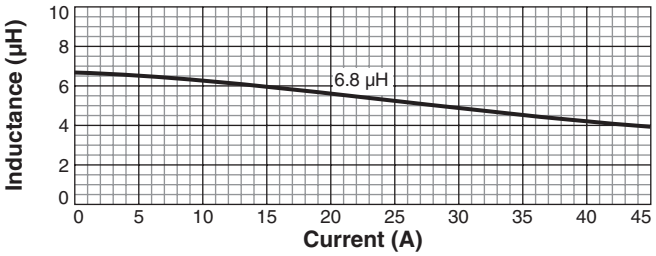
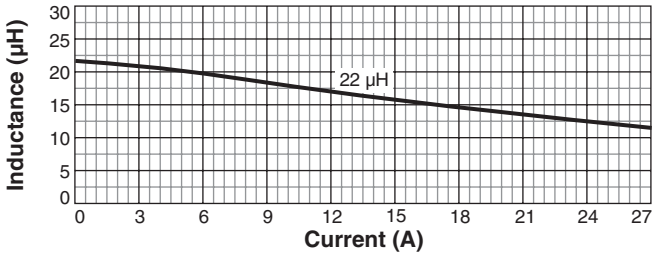
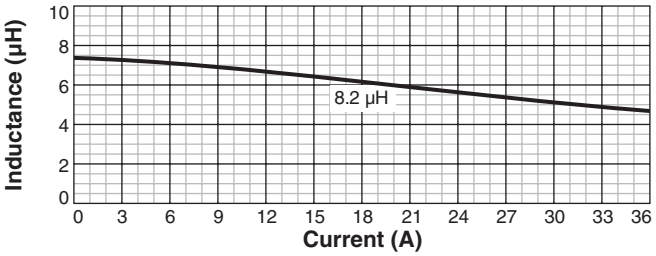
L vs Current

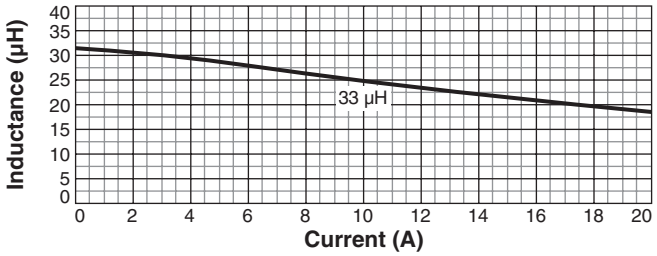


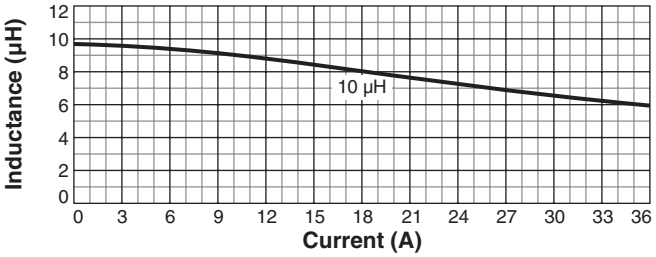












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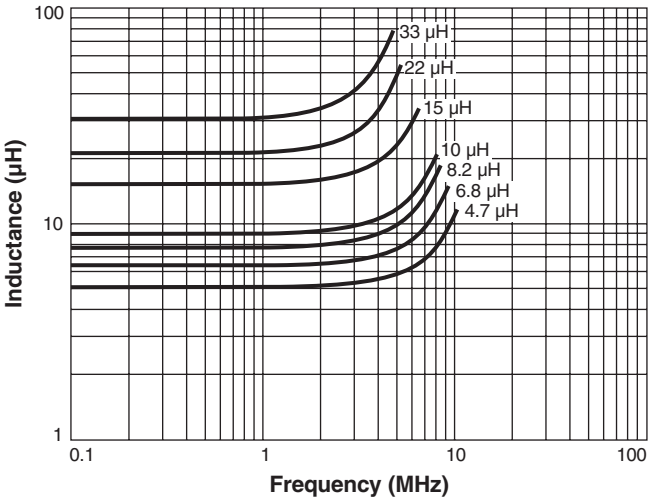
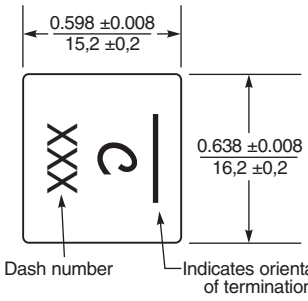
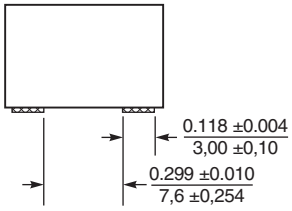
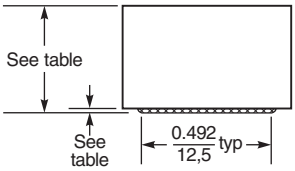
L vs Frequency

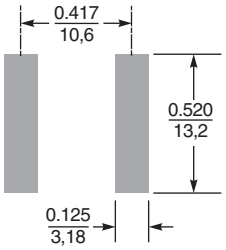




Dash number	Height max (in / mm)	Terminal thickness typ (in / mm)
-472	0.394 / 10,0	0.0197 / 0.50
-682	0.394 / 10,0	0.0197 / 0.50
-822	0.394 / 10,0	0.0138 / 0.35
-103	0.394 / 10,0	0.0138 / 0.35
-153	0.394 / 10,0	0.0138 / 0.35
-223	0.394 / 10,0	0.0098 / 0.25
-333	0.433 / 11,0	0.0098 / 0.25







Recommended Land Pattern

Dimensions are in inches / mm

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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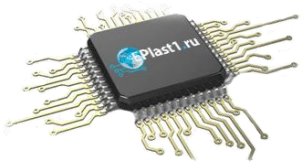
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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