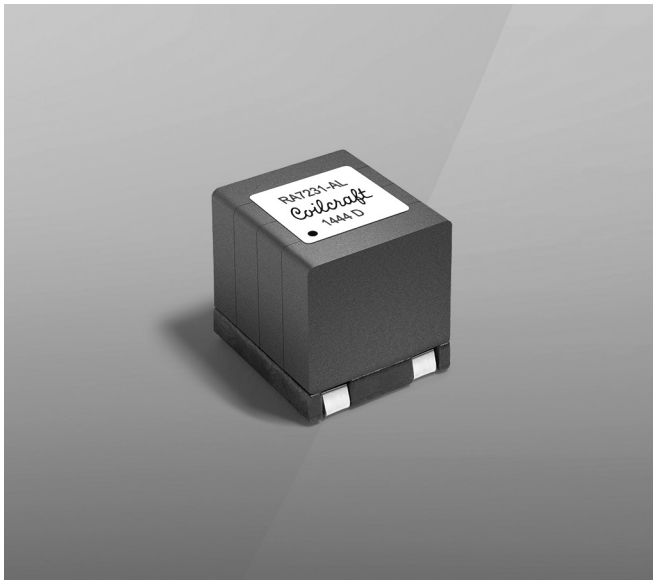
Dual Inductor for Class D RA7231-AL



- AEC-Q200 Grade 1 qualified
- Dual inductors for use in Class D output filters
- A single shielded package contains both coils.
- Very low magnetic coupling
- Designed for 40 Watts into 2 Ohm load
- Less than 1% drop in inductance up to 12.3 A

Core material Ferrite
Terminations RoHS compliant tin-silver (96.5/3.5) over copper.
Weight 12.3 g
Ambient temperature –40°C to +125°C with Irms current
Maximum part temperature +165°C (Ambient + temperature 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
Tape and reel packaging 150/13″ reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 16.1 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]		Inductance[2] ±10% (µH)	DCR max[3] (mOhms)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	20% drop	30% drop	Irms (A)[6] 20°C rise	40°C rise
RA7231-AL_	L1	5.0	6.0	34	15.5	16.6	17.6	7.6	10.6
	L2	5.0	6.0	34	15.5	16.6	17.6		

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

RA7231-ALD

Packaging: **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape.
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 measured at 100 kHz, 1.0 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer. Minimum inductance is 4.5 µH at 11.5 Adc.
3. DCR is for each winding, measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 8753D network analyzer.
5. DC current (typical) at which the inductance drops the specified amount from its value without current.
6. Current applied to windings at the same time 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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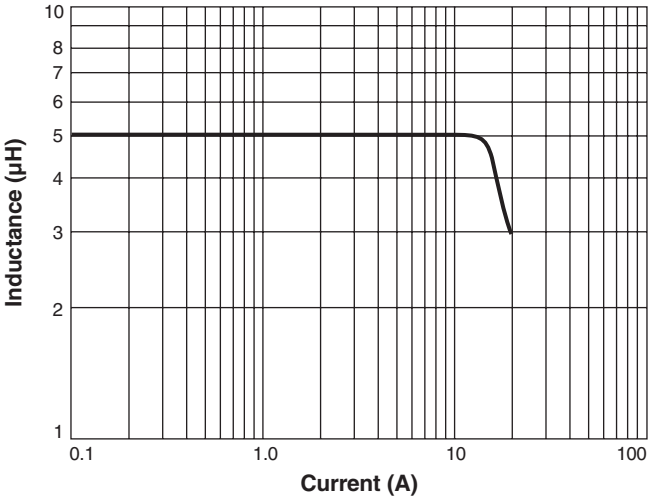
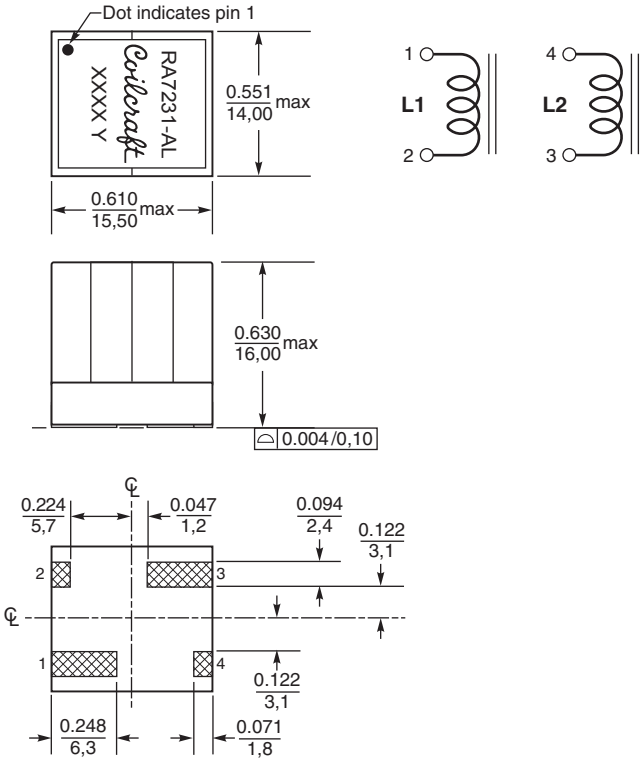
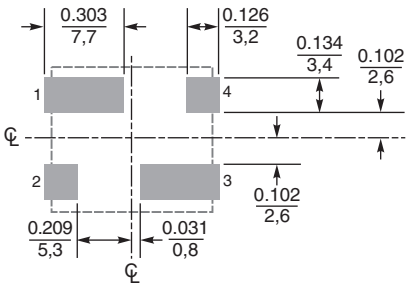
Class D Dual Inductor – RA7231-AL

L vs Current





Recommended Land Pattern



Dimensions are in inches / mm

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