NEW!

Dual Inductor for Class D – GA3416-CL

- Dual inductor for use in Class D output filter
- Designed for low distortion and the best sound quality
- Shielded surface mount package contains both coils
- Additional mounting pads for excellent board adhesion

Core material Ferrite

Terminations RoHS compliant tin-silver over copper (leads), gold over nickel over phos bronze (additional mounting pads). Other terminations available at additional cost.

Weight 7.8 g

Ambient temperature –40°C to +125°C with Irms current, +125°C to +165°C with derated current

Storage temperature Component: –40°C to +165°C. 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 200/13″ reel Plastic tape: 32 mm wide, 0.4 mm thick, 20 mm pocket spacing, 12.45 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number[1]	Maximum power (W)[2] 2 Ohm load	4 Ohm load	Inductance[3] ±10% (µH)	DCR max[4] (Ohms)	SRF typ[5] (MHz)	THD+N[6] (%)	Isat (A)[7] 10% drop	20% drop	30% drop	Irms (A)[8] 20°C rise	40°C rise
GA3416-CL_	28	60	10.0	0.021	23.6	<0.1	9.1	9.3	9.5	3.0	4.3

1. When ordering, please specify **termination**, and **packaging** codes:

GA3416-C L D

Termination: **L** = RoHS compliant tin-silver over copper (leads), gold over nickel over phos bronze (additional mounting pads.
Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

Packaging: **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape (200 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. Maximum power into specified load that causes a 40°C temperature rise. Measured at 1 kHz with a 14.4 Vdc supply for the 2-Ohm load and a 21 Vdc supply for the 4-Ohm load. Refer to Output Power table for typical output conditions. Tested using the TAS5414A Evaluation Board from Texas Instruments.
3. Inductance measured at 500 kHz, 0.5 Vrms, 0 Adc using an Agilent/ HP 4284A impedance analyzer.
4. DCR measured on a micro-ohmmeter.
5. SRF measured using Agilent/HP 8753D network analyzer.
6. Total harmonic distortion + noise measured at 23 W into a 2-Ohm or 4-Ohm load at 1 kHz with a 21 Vdc supply.
7. DC current at which the inductance drops the specified amount from its value without current.
8. Current applied to windings connected in series that causes the specified temperature rise from 25°C ambient.
9. Electrical specifications at 25°C.

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

Output Power

Power typ (W)	Temperature rise from 25°C (°C)	Load	THD+N	Test condition
21	17.0	4 Ohm	1%	1 kHz, 14.4 Vdc
25	20.0	4 Ohm	10%	1 kHz, 14.4 Vdc
44	30.7	4 Ohm	1%	1 kHz, 21 Vdc
54	35.0	4 Ohm	10%	1 kHz, 21 Vdc
33	46.5	2 Ohm	1%	1 kHz, 14.4 Vdc
40	51.6	2 Ohm	10%	1 kHz, 14.4 Vdc

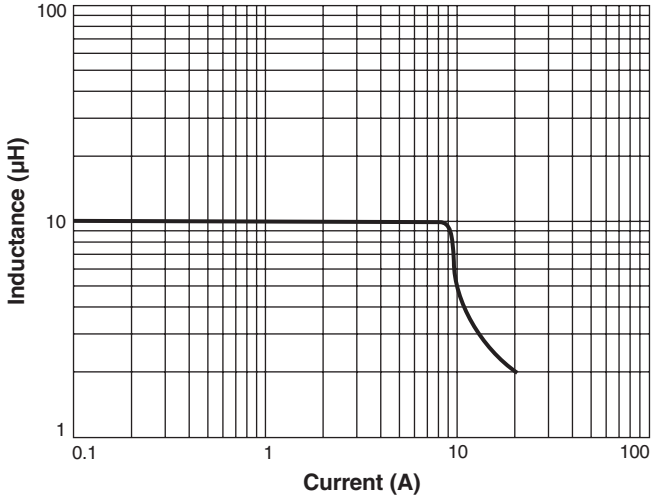
Coilcraft®
1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com

NEW!

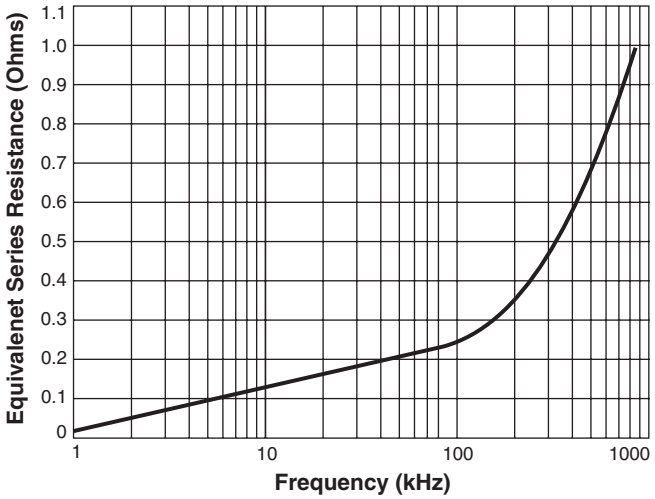
RoHS COMPLIANT

Class D Dual Inductor – GA3416-CL

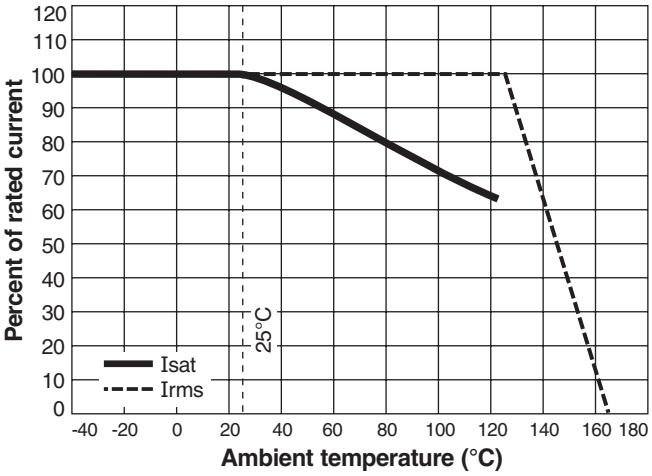
L vs Current

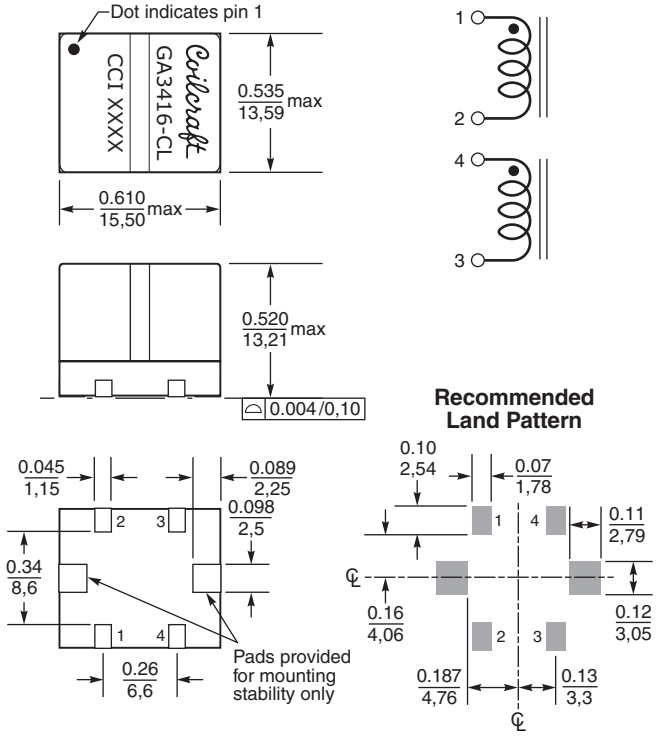


ESR vs Frequency



Current Derating





Dimensions are in inches / mm

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com