

**NEW!**

Dual Inductor for Class D – GA3416-CL



- Dual inductor for use in Class D output filter
- Very low magnetic coupling
- Passes AEC-Q200 testing
- Shielded surface mount package with both coils and 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 I_{rms} 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 | | Inductance ³ ±10% (µH) | DCR max ⁴ (Ohms) | SRF typ ⁵ (MHz) | THD+N ⁶ (%) | Isat (A) ⁷ | | | Irms (A) ⁸ | |
|--------------------------|--------------------------------|---------------|--------------------------------------|-----------------------------------|----------------------------------|---------------------------|-----------------------|-------------|-------------|-----------------------|--------------|
| | 2 Ohm load | 4 Ohm load | | | | | 10% drop | 20% drop | 30% drop | 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-CL 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.

- 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.
 - Inductance measured at 500 kHz, 0.5 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer.
 - DCR measured on a micro-ohmmeter.
 - SRF measured using Agilent/HP 8753D network analyzer.
 - Total harmonic distortion + noise measured at 23 W into a 2-Ohm or 4-Ohm load at 1 kHz with a 21 Vdc supply.
 - DC current at which the inductance drops the specified amount from its value without current.
 - Current applied to windings connected in series that causes the specified temperature rise from 25°C ambient.
 - 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) | Test condition | | |
|------------------|---------------------------------------|----------------|-------|-----------------|
| | | 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®

Specifications subject to change without notice.
Please check our website for latest information.

Document 667-1 Revised 06/11/10

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

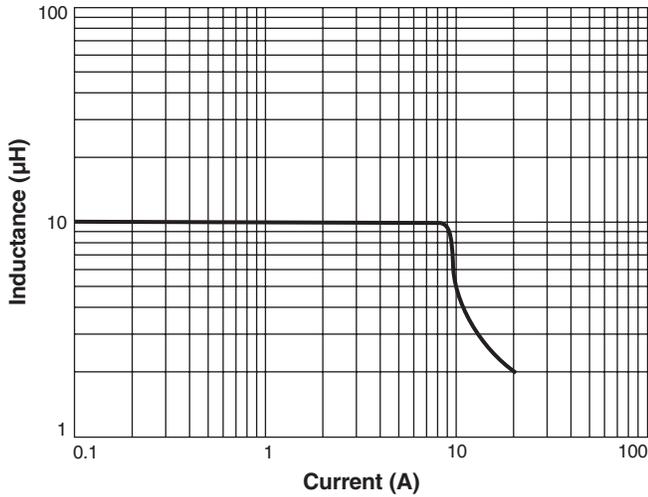
E-mail info@coilcraft.com Web <http://www.coilcraft.com>



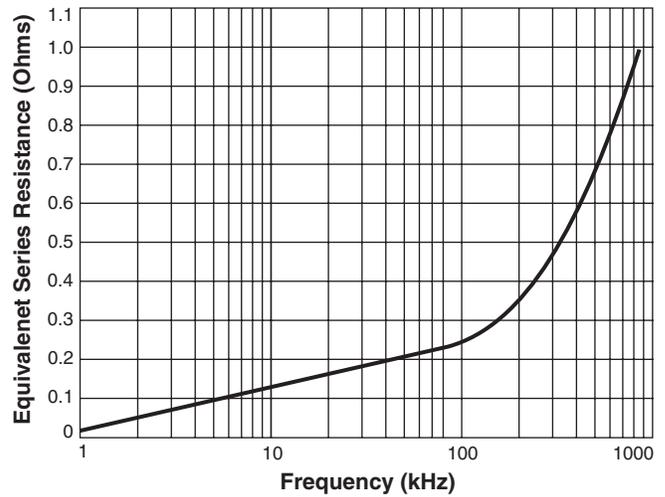
NEW!

Class D Dual Inductor – GA3416-CL

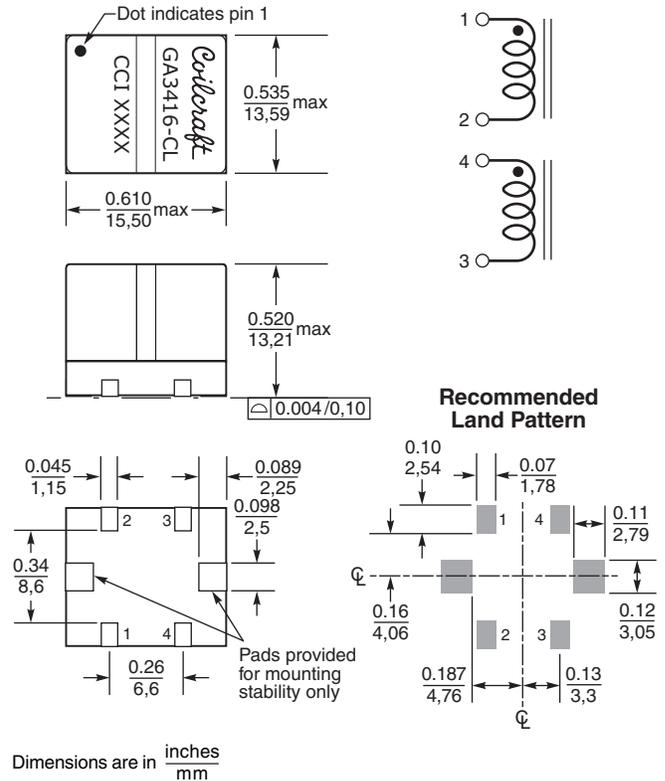
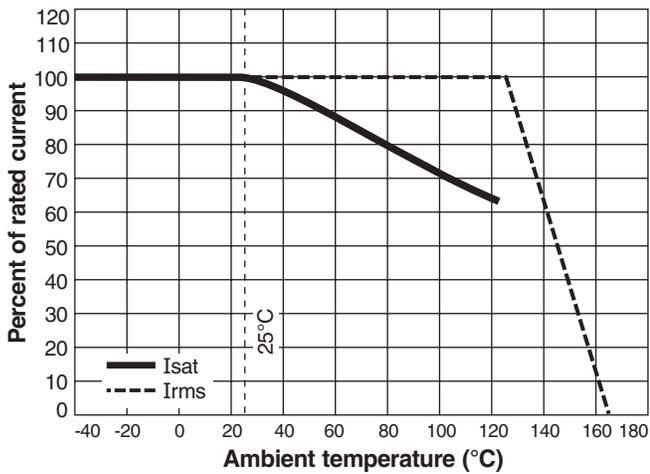
L vs Current



ESR vs Frequency



Current Derating



Specifications subject to change without notice.
Please check our website for latest information.

Document 667-2 Revised 06/11/10

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>