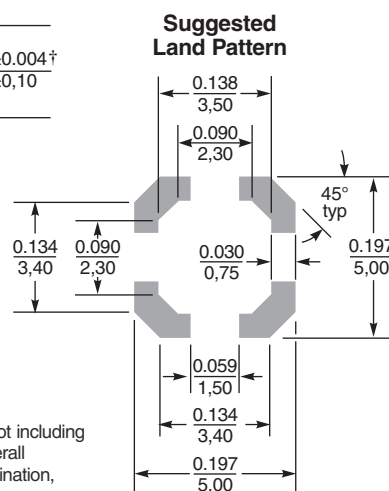
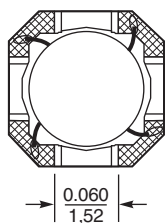
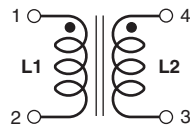
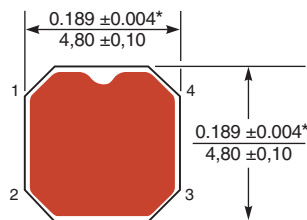
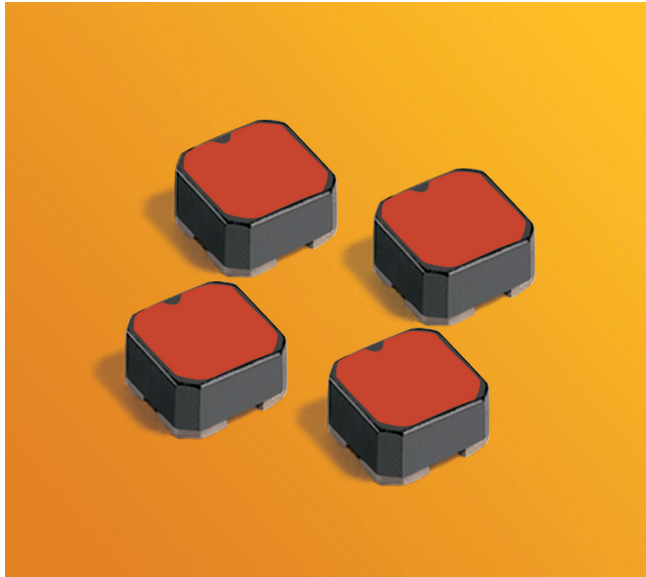


# Outgassing Compliant Coupled Inductors

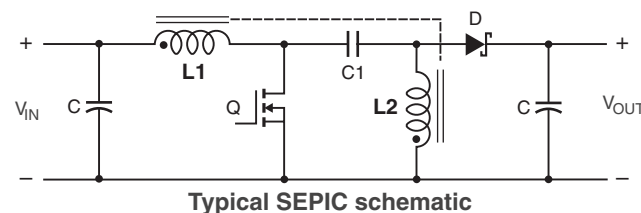
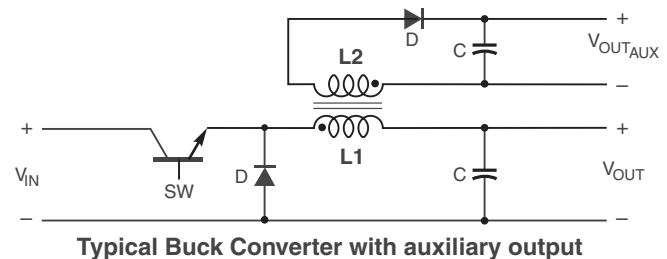
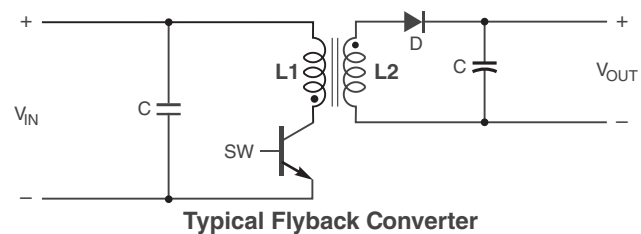


Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

\*Dimensions are of the case not including termination. For maximum overall dimensions including the termination, add 0.010 in / 0,254 mm.

† Height dimension is after mounting. For maximum height dimension before mounting, add 0.006 in / 0,152 mm.

- Only 3 mm high and 5 mm square
- Passes NASA low outgassing specifications
- Ideal for use in flyback, multi-output buck and SEPIC applications.
- High inductance, high efficiency and excellent current handling
- Can also be used as two single inductors connected in series or parallel or as a common mode choke.
- Non-metallic cover suitable for space applications



**Core material** Ferrite

**Core and winding loss** [Go to online calculator](#)

**Weight** 190 – 255 mg

**Terminations** Tin-lead (63/37) over tin over nickel

**Ambient temperature**  $-55^{\circ}\text{C}$  to  $+105^{\circ}\text{C}$  with Irms current

**Maximum part temperature**  $+155^{\circ}\text{C}$  (ambient + temp rise)

**Storage temperature** Component:  $-55^{\circ}\text{C}$  to  $+155^{\circ}\text{C}$ .

Packaging:  $-55^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Winding to winding isolation** 100 V

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

**Packaging** 750 per 7" reel Plastic tape: 12 mm wide, 0.32 mm thick, 8 mm pocket spacing, 3.1 mm pocket depth

**Recommended pick and place nozzle** OD: 5 mm; ID:  $\leq 2.5$  mm

# AR466PJD Series Coupled Inductors

Part number <sup>1</sup>	Inductance <sup>2</sup> ( $\mu$ H)	DCR max <sup>3</sup> (Ohms)	SRF typ <sup>4</sup> (MHz)	Coupling coefficient typ	Leakage L typ <sup>5</sup> ( $\mu$ H)	Isat (A) <sup>6</sup>			Irms (A)	
						10% drop	20% drop	30% drop	both windings <sup>7</sup>	one winding <sup>8</sup>
AR466PJD102NSZ	1.0 $\pm$ 30%	0.042	153	0.95	0.09	4.30	4.49	4.67	2.20	3.11
AR466PJD152MSZ	1.5 $\pm$ 20%	0.048	118	0.97	0.09	3.90	4.20	4.30	2.05	2.90
AR466PJD222MSZ	2.2 $\pm$ 20%	0.067	87.0	0.98	0.10	2.80	2.98	3.07	1.95	2.76
AR466PJD332MSZ	3.3 $\pm$ 20%	0.077	61.0	0.98	0.10	2.50	2.70	2.80	1.70	2.40
AR466PJD472MSZ	4.7 $\pm$ 20%	0.111	49.0	0.99	0.11	2.10	2.20	2.20	1.40	1.98
AR466PJD562MSZ	5.6 $\pm$ 20%	0.125	44.0	0.99	0.11	1.80	1.80	1.89	1.35	1.91
AR466PJD682MSZ	6.8 $\pm$ 20%	0.159	40.0	0.99	0.12	1.40	1.48	1.48	1.20	1.70
AR466PJD103MSZ	10 $\pm$ 20%	0.210	28.0	0.99	0.13	1.20	1.20	1.20	1.05	1.48
AR466PJD153MSZ	15 $\pm$ 20%	0.298	23.0	0.99	0.15	1.00	1.17	1.17	0.85	1.20
AR466PJD223MSZ	22 $\pm$ 20%	0.452	17.0	>0.99	0.17	0.89	0.98	0.98	0.70	0.99
AR466PJD333MSZ	33 $\pm$ 20%	0.565	16.0	>0.99	0.20	0.73	0.77	0.78	0.60	0.85
AR466PJD473MSZ	47 $\pm$ 20%	0.806	12.0	>0.99	0.24	0.59	0.63	0.65	0.50	0.71
AR466PJD683MSZ	68 $\pm$ 20%	1.13	9.00	>0.99	0.29	0.50	0.54	0.55	0.43	0.61
AR466PJD104MSZ	100 $\pm$ 20%	1.79	8.44	>0.99	0.37	0.47	0.54	0.56	0.33	0.47
AR466PJD154MSZ	150 $\pm$ 20%	2.43	6.72	>0.99	0.46	0.38	0.43	0.45	0.28	0.40
AR466PJD224MSZ	220 $\pm$ 20%	3.30	5.53	>0.99	0.54	0.31	0.35	0.36	0.24	0.34
AR466PJD334MSZ	330 $\pm$ 20%	5.36	4.17	>0.99	0.65	0.25	0.25	0.32	0.18	0.25
AR466PJD474MSZ	470 $\pm$ 20%	7.51	3.52	>0.99	0.76	0.21	0.24	0.26	0.15	0.21
AR466PJD684MSZ	680 $\pm$ 20%	10.8	2.93	>0.99	0.89	0.17	0.20	0.21	0.13	0.18
AR466PJD105MSZ	1000 $\pm$ 20%	16.5	2.33	>0.99	1.20	0.15	0.17	0.17	0.10	0.14

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

## AR466PJD105MSZ

**Screening:** Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

G = Coilcraft CP-SA-10001 Group A (SLDC Option A)

D = Coilcraft CP-SA-10001 Group A (SLDC Option B)

N = Group A screening per Coilcraft CP-SA-10004

J = Group A screening per Coilcraft CP-SA-10006

1 = EEE-INST-002 (Family 1) Level 1

2 = EEE-INST-002 (Family 1) Level 2

3 = EEE-INST-002 (Family 1) Level 3

4 = MIL-STD-981 (Family 04) Class B

5 = MIL-STD-981 (Family 04) Class S

F = ESCC3201 (F4 operational life performed at 105°C)

- Screening performed to the document's latest revision.
- Lot qualification (Group B) available.
- Testing T and U have been replaced with more detailed codes 4, 5, and 1, 2, 3, respectively. Codes T and U can still be used, if necessary. Custom testing also available.
- Country of origin restrictions available; prefix options G or F.

- Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent. When leads are connected in parallel, inductance is the same value. When leads are connected in series, inductance is four times the value.
- DCR is for each winding. When leads are connected in parallel, DCR is half the value. When leads are connected in series, DCR is twice the value.
- SRF measured using an Agilent/HP 4191A or equivalent. When leads

are connected in parallel, SRF is the same value.

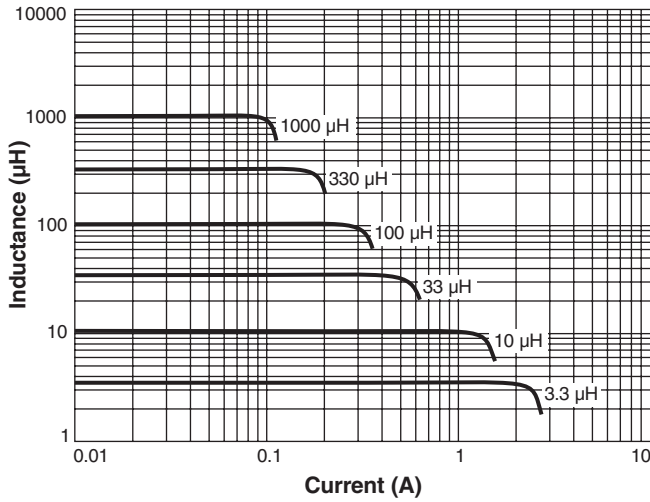
- Leakage Inductance is for L1 and is measured with L2 shorted.
- DC current at 25°C, at which the inductance drops the specified amount from its value without current. It is the sum of the current flowing in both windings.
- Equal current when applied to each winding simultaneously that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. See temperature rise calculation.
- Maximum current when applied to one winding that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. See temperature rise calculation.
- Electrical specifications at 25°C.

## Coupled Inductor Core and Winding Loss Calculator

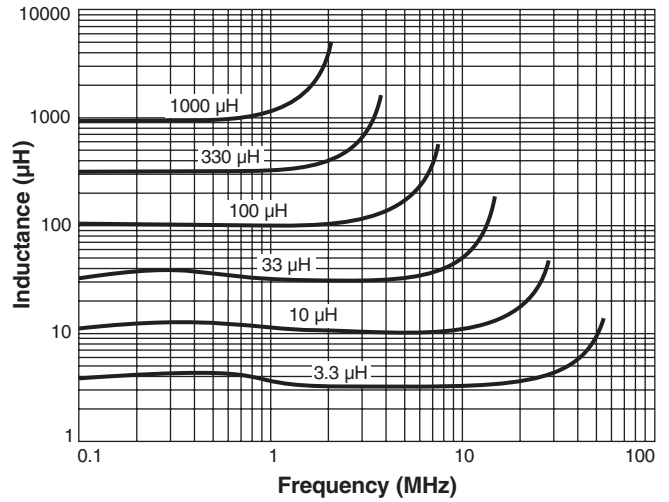
This web-based utility allows you to enter frequency, peak-to-peak (ripple) current, and Irms current to predict temperature rise and overall losses, including core loss. [Go to online calculator.](#)

# AR466PJD Series Coupled Inductors

## Typical L vs Current



## Typical L vs Frequency



1102 Silver Lake Road  
Cary, IL 60013  
Phone 800-981-0363

Fax 847-639-1508  
Email [cps@coilcraft.com](mailto:cps@coilcraft.com)  
[www.coilcraft-cps.com](http://www.coilcraft-cps.com)

Document AR757-3 Revised 09/22/22

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.