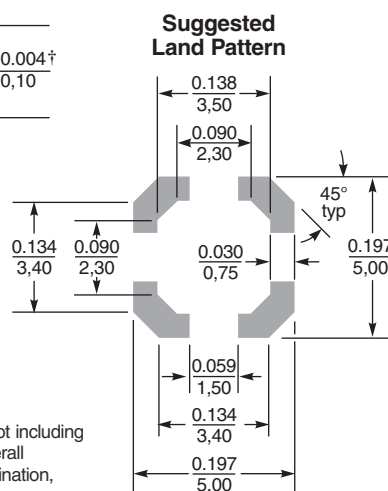
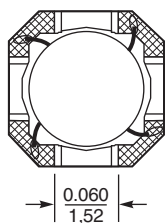
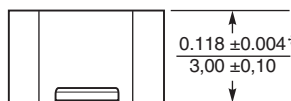
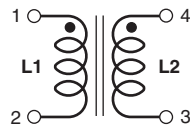
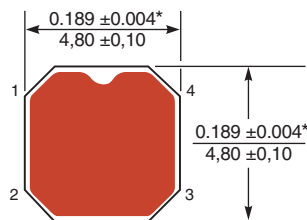
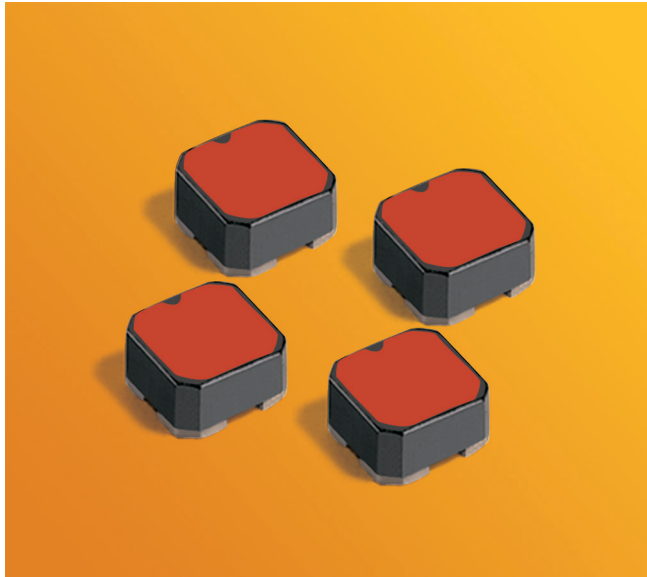


# Outgassing Compliant Coupled Inductors

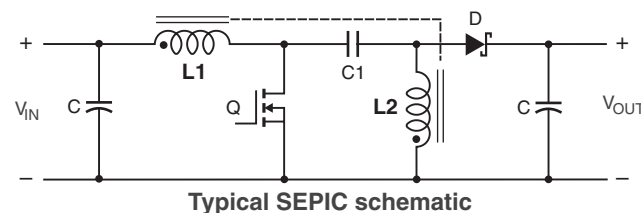
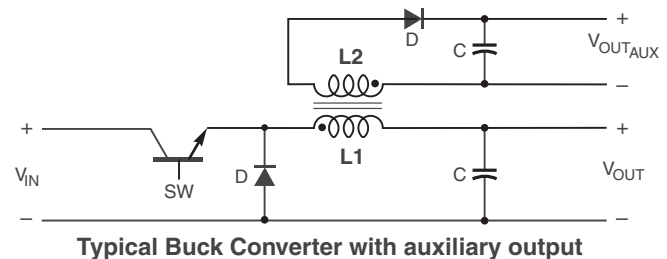
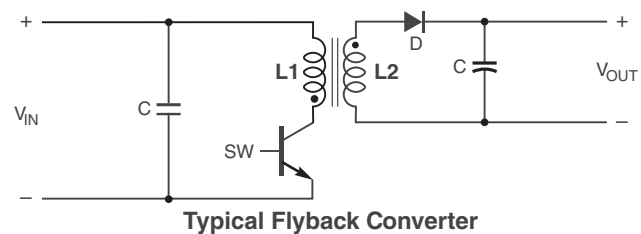


Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

\*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

**Coilcraft CPS**  
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Document AR757-1 Revised 04/12/23

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.

# 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

Y = Unscreened (SLDC Option A)

W = Unscreened (SLDC Option B)

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.

2. 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.

3. 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.

4. SRF measured using an Agilent/HP 4191A or equivalent. When leads are connected in parallel, SRF is the same value.

5. Leakage Inductance is for L1 and is measured with L2 shorted.

6. 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.

7. 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.

8. 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.

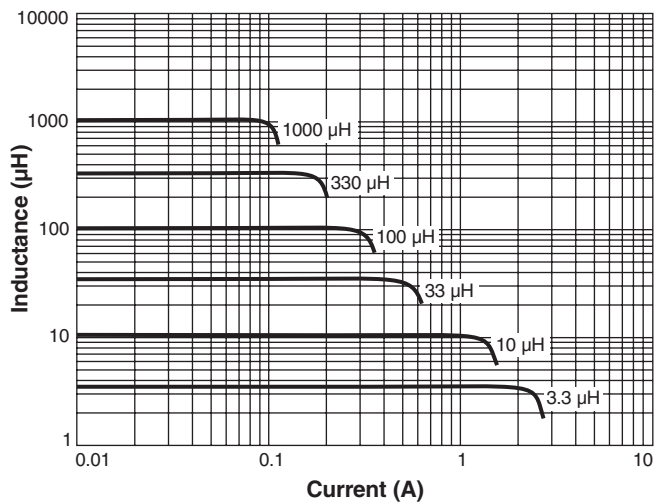
9. Electrical specifications at 25°C.

## 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

