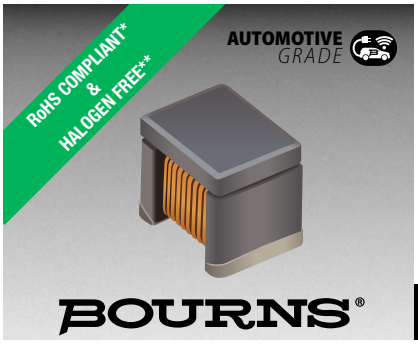


Features

- High rated current
- Inductance up to 47 µH
- Compact size
- High impedance over a wide frequency range
- High operating temperature up to 150 °C
- AEC-Q200 compliant
- RoHS compliant* and halogen free**

Applications

- Automotive systems
- Noise filters
- DC power lines
- Power over Coaxial

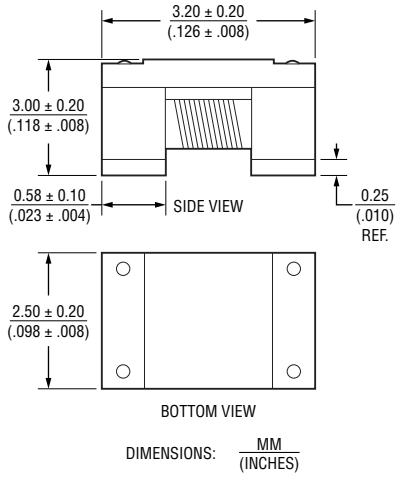
CWP3230A Series – Chip Inductors

Electrical Specifications

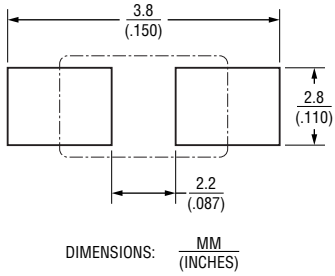
Bourns® Part No.	Inductance @ 100 kHz / 0.1 V		DCR (Ω)		SRF (MHz)	Isat (mA) Typ.					Irms (mA) Typ.		
	L (µH)	Tol. %	Typ.	Max.	Typ.	25 °C	85 °C	105 °C	125 °C	140 °C	25 °C	85 °C	125 °C
CWP3230A-2R2M	2.2	±20	0.10	0.13	300	2200	1900	1700	1500	1300	1900	1730	1000
CWP3230A-6R8M	6.8		0.20	0.24	120	1400	1000	930	800	700	1360	1230	800
CWP3230A-100M	10		0.29	0.34	95	1100	850	760	660	560	1130	1020	570
CWP3230A-220M	22		0.76	0.88	70	720	580	520	450	390	700	630	400
CWP3230A-470M	47		1.00	1.20	50	300	280	200	180	150	500	300	100

Notes:
Maximum part temperature +140 °C (ambient temperature plus self-generation of heat).
Isat: DC current that causes 30 % inductance drop from its initial value at 200 mA at specified temperature.
Irms: Current that causes a 40 °C rise at 25 °C.
Current that causes a 40 °C rise at 85 °C.
Current that causes a 15 °C rise at 125 °C.

Product Dimensions



Recommended Layout



How to Order

CWP3230A - 2R2 M

Model

Inductance Value Code
- 2R2 = 2.2 µH
- 6R8 = 6.8 µH
- 100 = 10 µH
- 220 = 22 µH
- 470 = 47 µH

Tolerance Code
- M = ±20 %

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

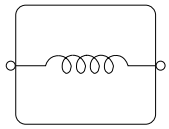
General Specifications

Operating Temperature ..... -55 °C to +150 °C
(Temperature rise included)
Storage Temperature ..... -55 °C to +150 °C
Temperature Rise ..... 15 °C or 40 °C typ. at rated Irms
Rated Current ..... Inductance drops 30 % at Isat
Moisture Sensitivity Level 1
ESD Classification (HBM) ..... N/A

Materials

Core Material ..... Ferrite
Wire ..... Enameled copper
Terminal ..... Ag/Ni/Sn
Packaging ..... 500 pcs. per 7 ″ reel

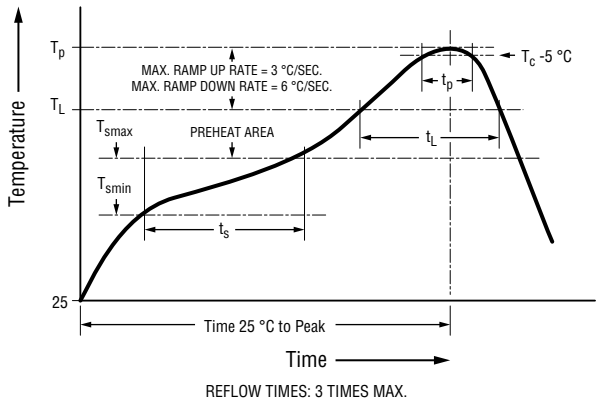
Electrical Schematic



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

* RoHS Directive 2015/863, Mar 31, 2015 and Annex.
** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Soldering Profile

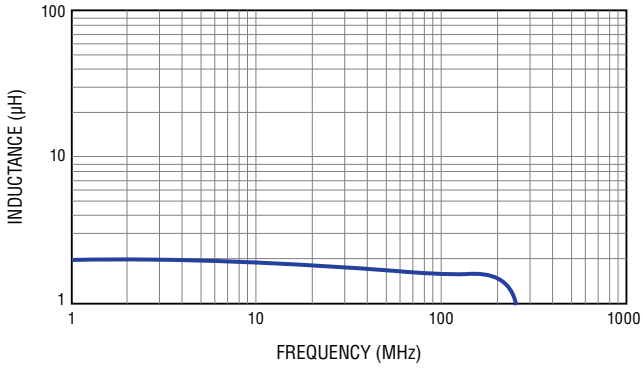


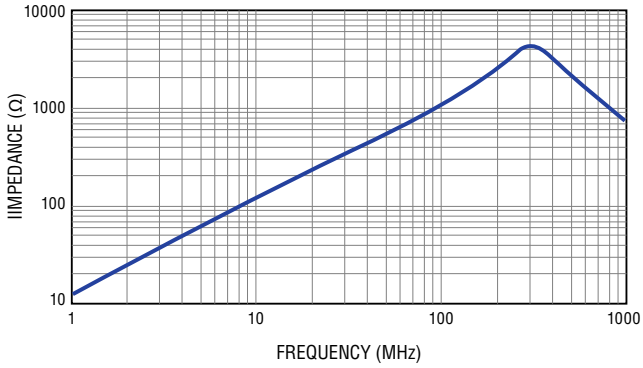
REFLOW TIMES: 3 TIMES MAX.

Profile Feature	Pb Free Assembly
Preheat - Temperature Min. (T_{smin}) - Temperature Max. (T_{smax}) - Time(t_s) from T_{smin} to T_{smax}	 150 °C 200 °C 60-120 seconds
Ramp-up Rate (T_L to T_p)	3 °C/second max.
Liquidous temperature (T_L) Time (t_L) maintained above T_L	217 °C 60-150 seconds
Reflow temperature	250 °C
Time (t_p) at T_c - 5 °C (T_p should be equal to or less than T_c)	< 30 seconds
Ramp-Down Rate (T_p to T_L)	6 °C/second max.
Time 25 °C to Peak Temperature	8 minutes max.

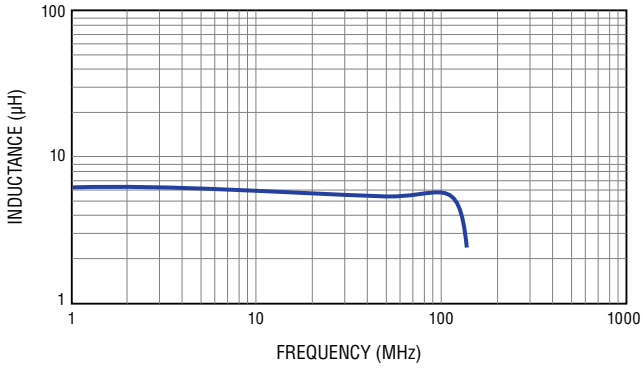
Inductance vs. IDC

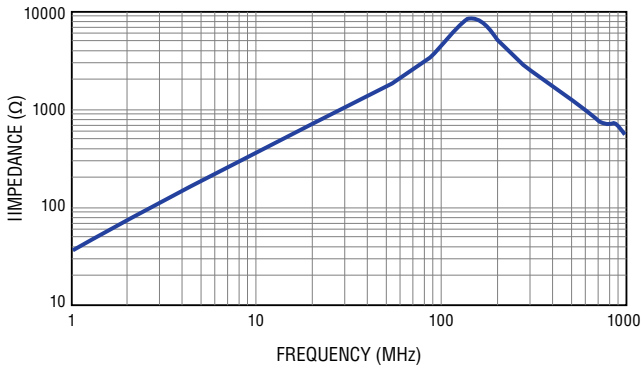
CWP3230A-2R2M





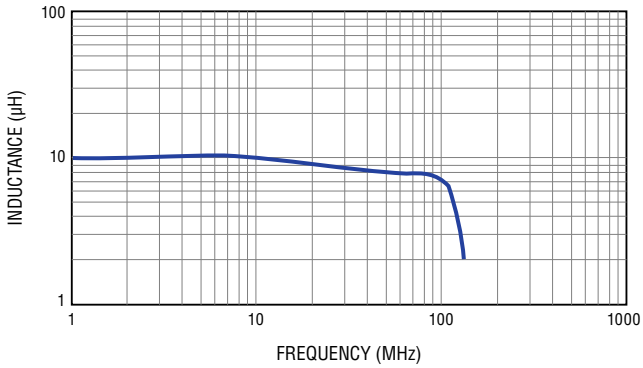
CWP3230A-6R8M

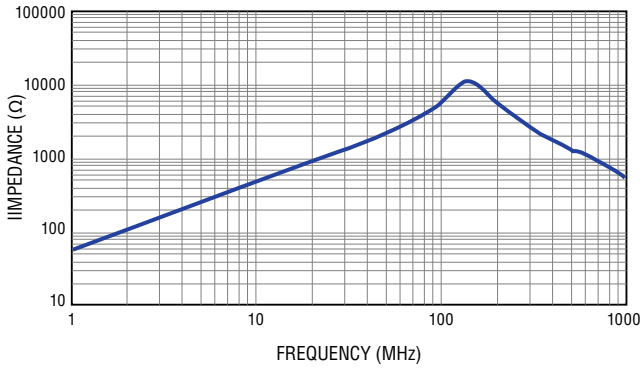




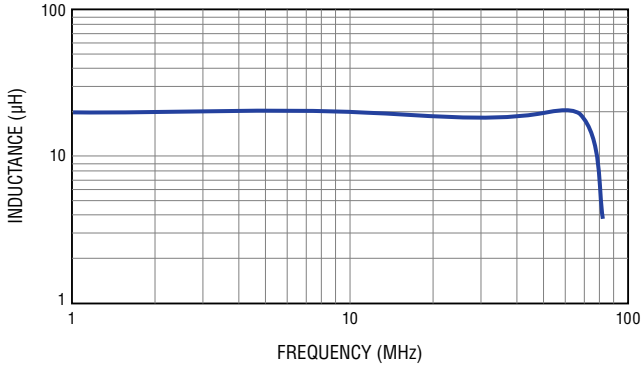
Inductance vs. IDC (continued)

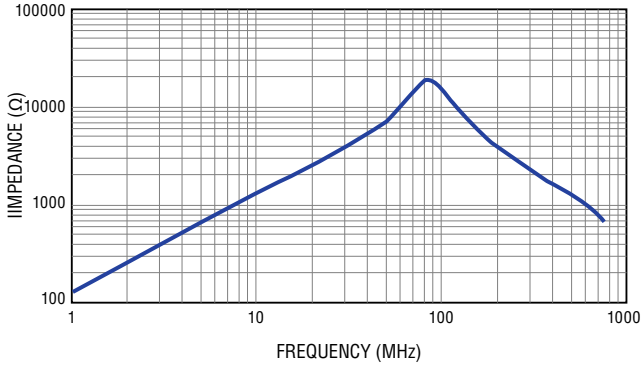
CWP3230A-100M



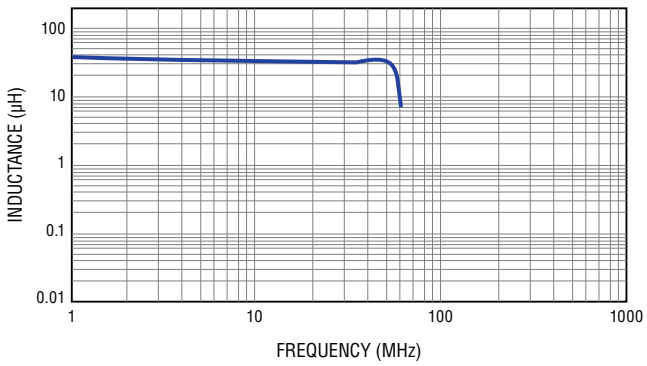


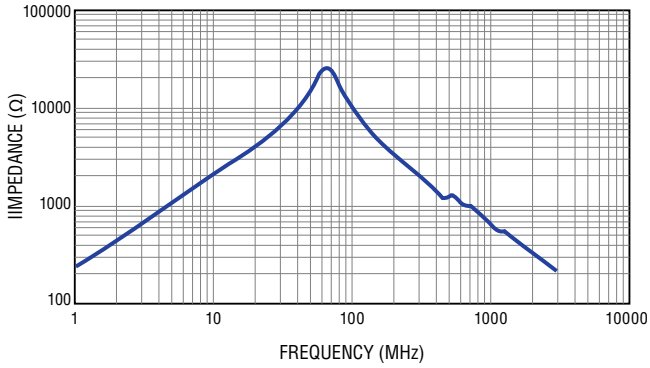
CWP3230A-220M



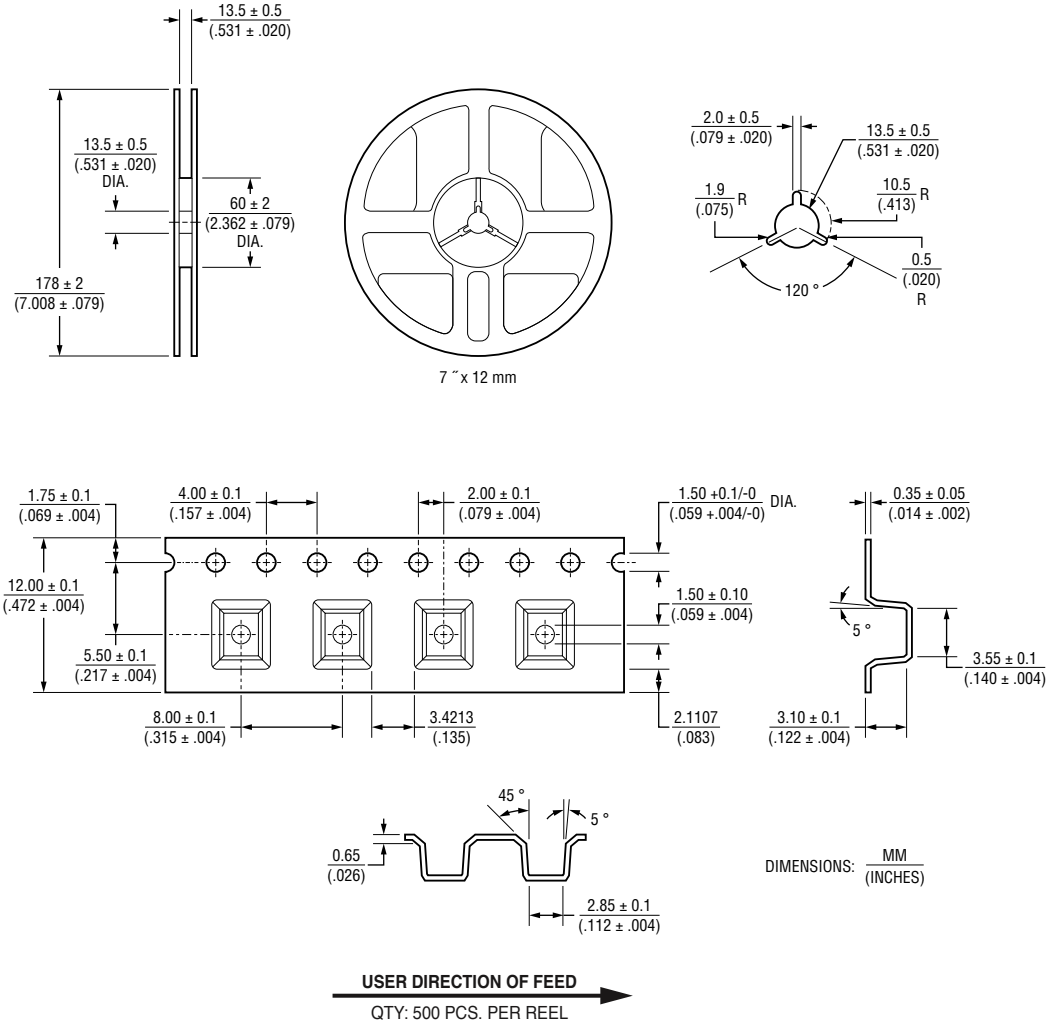


CWP3230A-470M





Packaging Specifications



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