

Features

- Shielded construction
- Metal alloy powder core
- High saturation current
- Low DCR
- Low buzz noise
- RoHS compliant* and halogen free**

Applications

- Industrial high current filters
- High current battery charging
- DC-DC converters

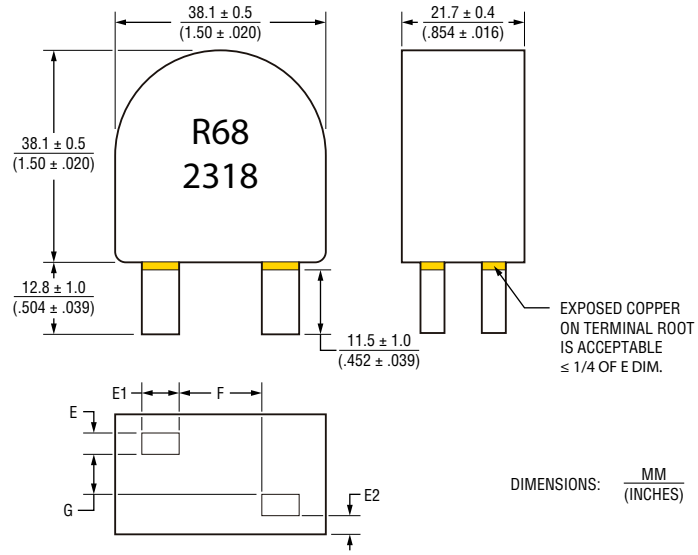
BOURNS®

HRP3822X Series – Shielded Power Inductors

Electrical Specifications

Bourns Part No.	Inductance @ 0 A		Irms (A) Typ.		Isat (A) Typ.		DCR (mΩ)		Q Min. @ 100 kHz	SRF (MHz) Ref.
	L (µH)	Tol. %	40 °C Rise	100 °C Rise	1	2	Typ.	Max.		
HRP3822X-R68M	0.68	±20	154	235	301	420	0.11	0.13	20	20
HRP3822X-R82M	0.82		132	196	235	332	0.18	0.20	20	18
HRP3822X-1R5M	1.5		120	175	138	193	0.25	0.26	60	13
HRP3822X-2R2M	2.2		115	168	104	150	0.33	0.36	60	11
HRP3822X-3R3M	3.3		96	150	87	124	0.40	0.42	60	8

Product Dimensions



Part Number	E	E1	E2	F	G
HRP3822X-R68M	4.05 ± 0.3 (.159 ± .012)	7.2 ± 0.3 (.283 ± .012)	3.2 ± 0.8 (.126 ± .031)	14.5 ± 0.8 (.571 ± .031)	7.3 ± 0.8 (.287 ± .031)
HRP3822X-R82M	2.55 ± 0.3 (.100 ± .012)	6.6 ± 0.3 (.260 ± .012)	3.9 ± 0.8 (.154 ± .031)	15.1 ± 0.8 (.594 ± .031)	8.9 ± 0.8 (.350 ± .031)
HRP3822X-1R5M					
HRP3822X-2R2M					
HRP3822X-3R3M					

Additional Information

Click these links for more information:

PRODUCT SELECTOR | TECHNICAL LIBRARY | INVENTORY | SAMPLES | CONTACT

General Specifications

Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature ... -40 °C to +125 °C
Temperature Rise
..... 40 °C and 100 °C at rated Irms[1]
Saturation Current
..... Inductance drops 20 % at Isat1,
30 % at Isat2
Moisture Sensitivity Level 1
ESD Classification (HBM) ..... N/A

[1]Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Materials

Core Material ..... Metal alloy powder
Wire ..... Enameled copper
Terminal ..... Sn
Packaging ..... 20 pcs. per tray

How to Order

HRP3822X - R68 M

Model

Inductance Value Code
R68 = 0.68 µH

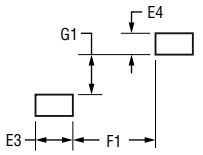
Tolerance Code
M = ±20 %

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.
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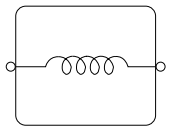
Recommended Layout



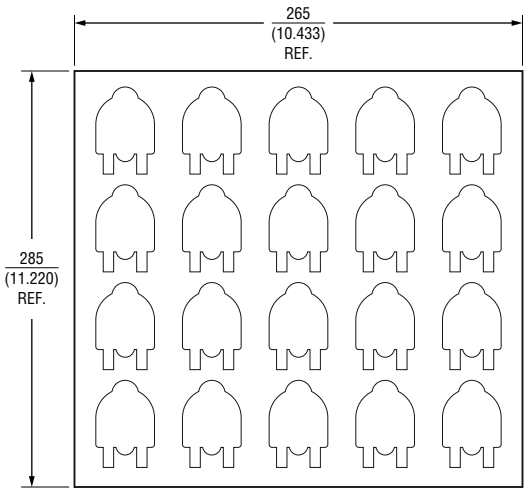
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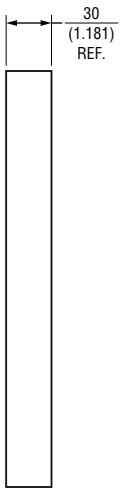
Part Number	E3	E4	F1	G1
HRP3822X-R68M	7.7 (.303)	4.5 (.177)	13.6 (.535)	6.4 (.252)
HRP3822X-R82M	7.1 (.280)	3.0 (.118)	14.2 (.559)	8.2 (.323)
HRP3822X-1R5M				
HRP3822X-2R2M				
HRP3822X-3R3M				

Electrical Schematic



Packaging Information





20 pcs./tray

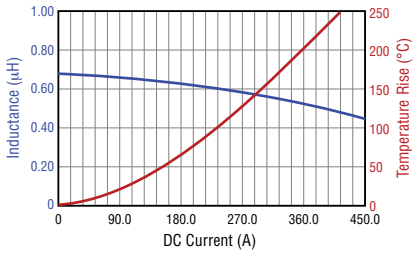
DIMENSIONS: MM / (INCHES)

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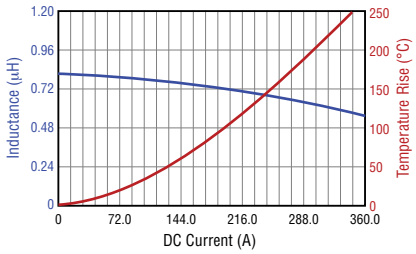
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Inductance vs. IDC

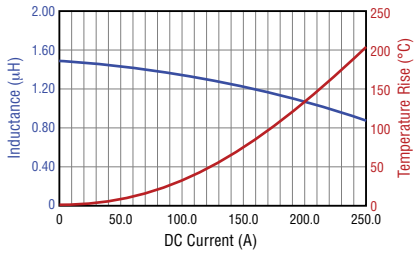
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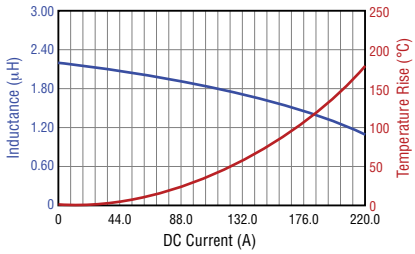
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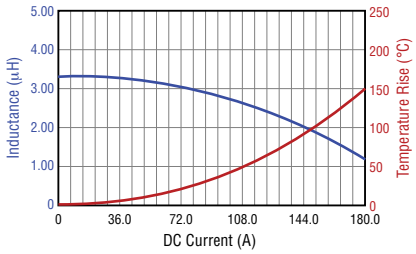
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HRP3822X-2R2M

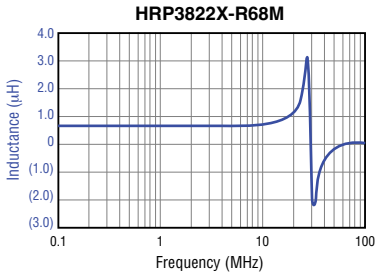


HRP3822X-3R3M

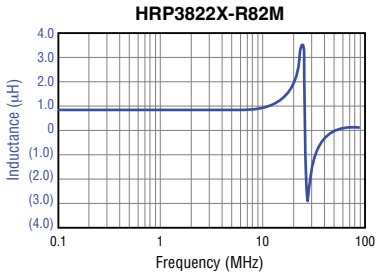


Inductance vs. Frequency

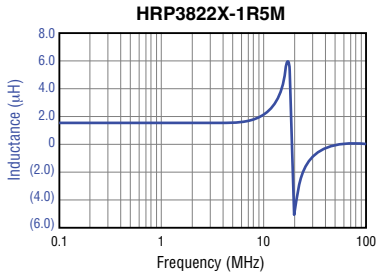
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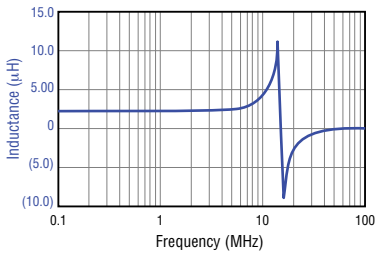
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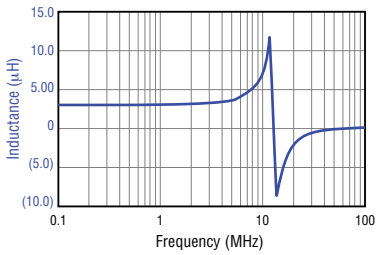
HRP3822X-1R5M



HRP3822X-2R2M



HRP3822X-3R3M



REV. 03/25

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