

Features

- Available in E6 series
- Unit height of 3.8 mm
- Current up to 7.2 A
- RoHS compliant*

Applications

- Input/output of DC/DC converters
- Power supplies for:
  - Portable communication equipment
  - Camcorders
  - LCD TVs

SRU1038 Series - Shielded SMD Power Inductors

Electrical Specifications

Bourns Part No.	Inductance 100 KHz (µH)	Tol. %	Q Ref.	Test Freq. (MHz)	SRF Typ. (MHz)	RDC Max. (mΩ)	Irms Max. (A)	Isat Typ. (A)	**K-Factor
SRU1038-1R5Y	1.5	± 30	14	7.96	65.0	5.2	7.20	7.00	177
SRU1038-2R2Y	2.2	± 30	12	7.96	55.0	10.5	6.80	6.50	145
SRU1038-2R5Y	2.5	± 30	12	7.96	50.0	12.5	6.10	6.00	136
SRU1038-3R5Y	3.5	± 30	14	7.96	35.0	11.5	5.50	5.50	106
SRU1038-3R8Y	3.8	± 30	14	7.96	35.0	15.0	5.50	5.50	104
SRU1038-5R0Y	5.0	± 30	12	7.96	30.0	14.5	4.60	4.80	94
SRU1038-5R2Y	5.2	± 30	12	7.96	30.0	22.0	4.60	4.80	92
SRU1038-6R2Y	6.2	± 30	12	7.96	25.0	16.5	4.00	4.20	84
SRU1038-6R8Y	6.8	± 30	13	7.96	36.0	35.0	3.90	4.00	80
SRU1038-8R2Y	8.2	± 30	12	7.96	22.0	32.0	3.80	3.90	73
SRU1038-100Y	10.0	± 30	24	2.52	20.0	25.0	3.80	3.60	64
SRU1038-150Y	15.0	± 30	24	2.52	16.0	37.0	2.80	2.70	51
SRU1038-220Y	22.0	± 30	20	2.52	12.0	55.8	2.20	2.30	43
SRU1038-270Y	27.0	± 30	22	2.52	11.0	78.0	1.85	1.90	39
SRU1038-330Y	33.0	± 30	22	2.52	10.0	86.0	1.80	1.80	35
SRU1038-470Y	47.0	± 30	22	2.52	8.0	121.0	1.65	1.60	29
SRU1038-680Y	68.0	± 30	24	2.52	7.0	166.0	1.30	1.30	26
SRU1038-101Y	100.0	± 30	24	0.796	6.0	220.0	1.10	1.10	20
SRU1038-151Y	150.0	± 30	20	0.796	5.0	358.0	0.90	0.80	16
SRU1038-221Y	220.0	± 30	22	0.796	4.0	565.0	0.65	0.65	14
SRU1038-331Y	330.0	± 30	20	0.796	3.0	773.0	0.55	0.52	11

**K-Factor: To calculate core flux density, Bp-p (gauss) = K x L(µH) x Δ I (peak-to-peak ripple current, A), determine core loss from *Core Loss vs. Flux Density* plot on page 2.

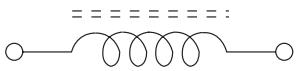
General Specifications

Test Voltage ..... 1 V
Reflow Soldering .. 230 °C, 50 sec. max.
Operating Temperature
..... -40 °C to +125 °C
(Temperature rise included)
Storage Temperature
..... -40 °C to +125 °C
Rated Current
..... Ind. drop 35 % typ. at Isat
Temperature Rise
..... 40 °C max. at rated Irms
Resistance to Soldering Heat
..... 260 °C for 10 sec.
Moisture Sensitivity Level 1
ESD Classification (HBM)..... N/A

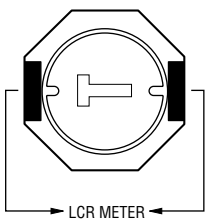
Materials

Core ..... Ferrite DR and RI core
Wire ..... Enameled copper
Terminal ..... Ag/Ni/Sn
Packaging ..... 800 pcs. per reel

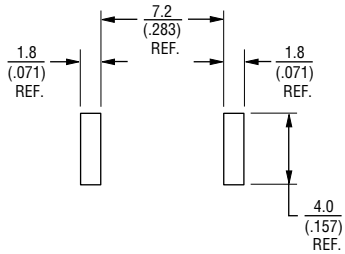
Electrical Schematic



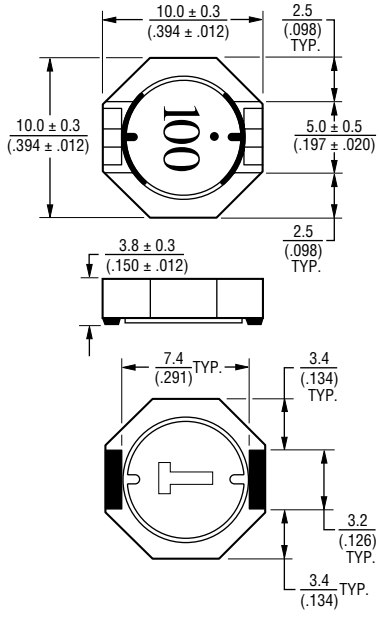
Inductor Connection



Recommended Layout



Product Dimensions

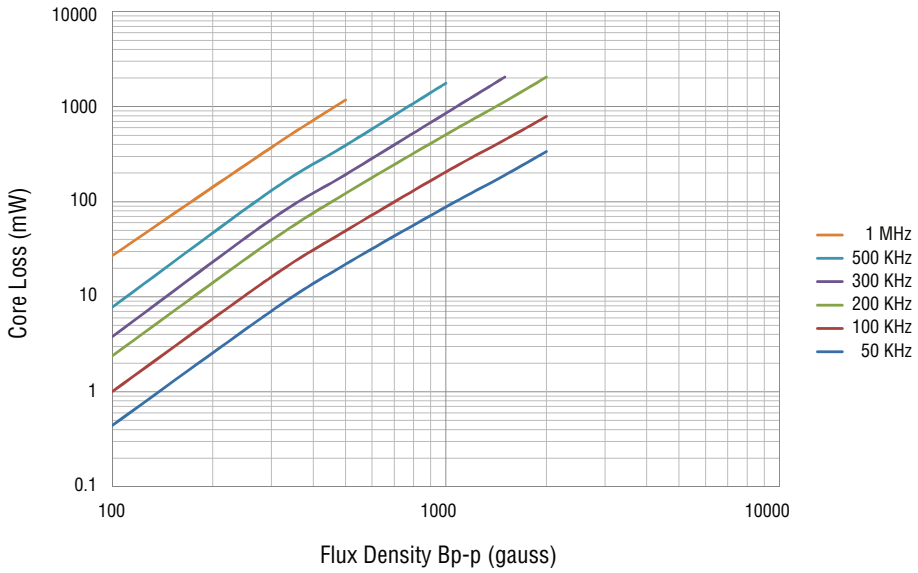


DIMENSIONS: MM (INCHES)

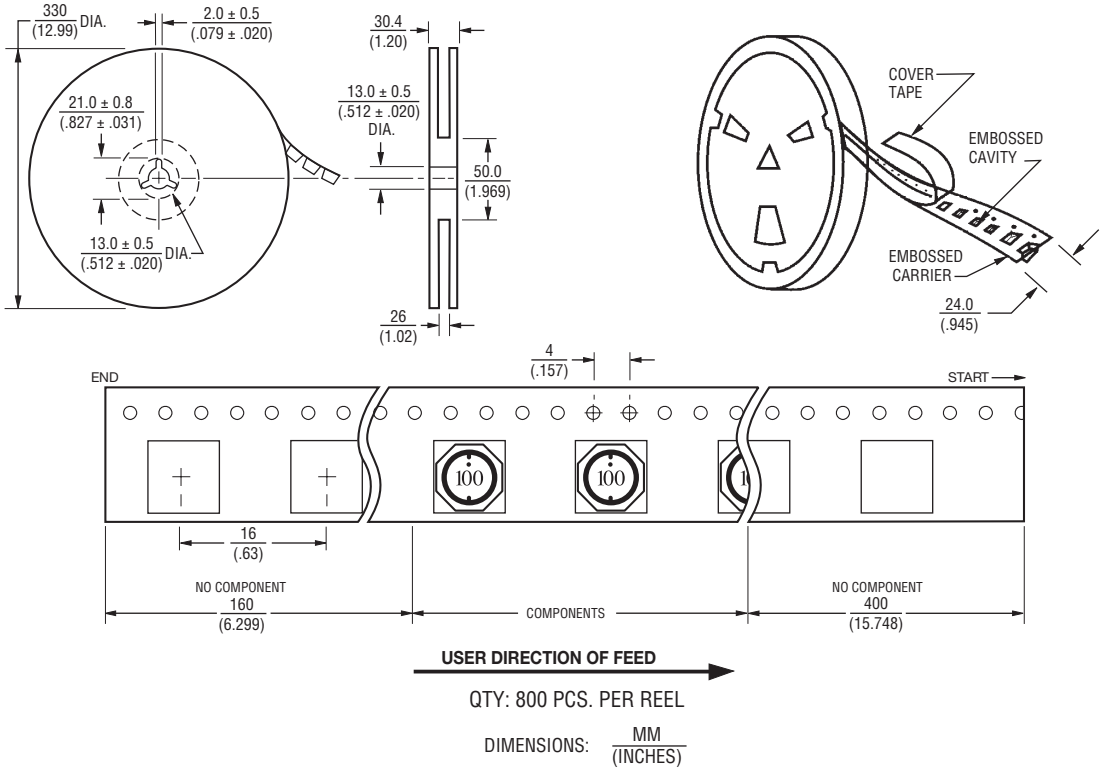
WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
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Core Loss vs. Flux Density



Packaging Specifications



QTY: 800 PCS. PER REEL

DIMENSIONS: MM (INCHES)

REV. 09/20

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