

Features

- Shielded construction – low radiation
- Low buzz noise
- Hot press molding process
- High current
- Low DCR
- RoHS compliant*

Applications

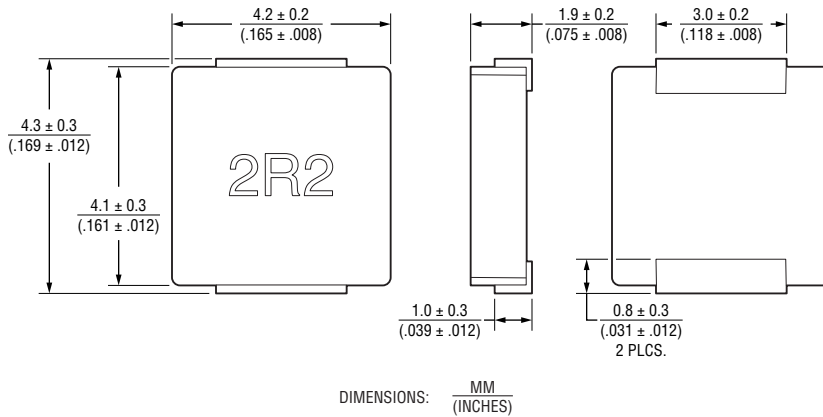
- DC-DC converters
- Power supplies

SRP4021HMCT Series – Shielded Power Inductors

Electrical Specifications @ 25 °C

Bourns Part Number	Inductance @ 100 KHz / 1 V		Q 100 kHz	SRF (MHz)	DCR (mΩ)		I _{rms} (A)	I _{sat} (A)	
	L (μH)	Tol. (%)			Typ.	Max			
SRP4021HMCT-R10M	0.10	±20	10	310	1.9	2.3	19	35	
SRP4021HMCT-R15M	0.15			223	3.1	3.8	16.5	29	
SRP4021HMCT-R33M	0.33			125	5	5.8	15	15	
SRP4021HMCT-R47M	0.47			100	6	7.2	13	13	
SRP4021HMCT-R68M	0.68			78	8.2	9.9	11	11	
SRP4021HMCT-1R0M	1.0			60	11.5	13.8	10	10	
SRP4021HMCT-1R5M	1.5		15	47	15.4	18.5	9	9	
SRP4021HMCT-2R2M	2.2			35	25	30	7.2	7.2	
SRP4021HMCT-3R3M	3.3			30	41	49.2	5.5	6.9	
SRP4021HMCT-4R7M	4.7			25	60	69	4.7	5.8	
SRP4021HMCT-5R6M	5.6			23	68	78.2	4.1	4.3	
SRP4021HMCT-6R8M	6.8			22	80.5	92.5	3.8	3.9	
SRP4021HMCT-8R2M	8.2		21	105	121	3.3	3.5		
SRP4021HMCT-100M	10		17	126	145	3.1	3.3		

Product Dimensions



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CALIFORNIA WARNING: Can expose you to lead, a carcinogen and reproductive toxicant. See www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. 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.

Additional Information

Click these links for more information:



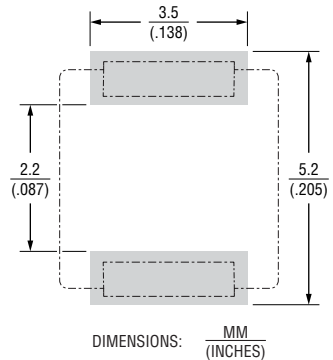
General Specifications

Operating Temperature -40 °C to +125 °C
 Storage Temperature -40 °C to +125 °C
 Temperature Rise 40 °C at rated I_{rms}
 Rated Current Inductance drops 30 % at I_{sat}
 Moisture Sensitivity Level 1
 ESD Classification (HBM) N/A

Materials

Core Carbonyl core powder
 Wire Enameled copper
 Terminal Finish Cu/Ni/Sn
 Packaging 3,000 pcs. per 13-inch reel

Recommended Layout

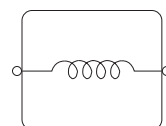


How to Order

SRP4021HMCT - R10 M

Model _____
 Value Code (see table) _____
 Tolerance _____
 M = ±20 %

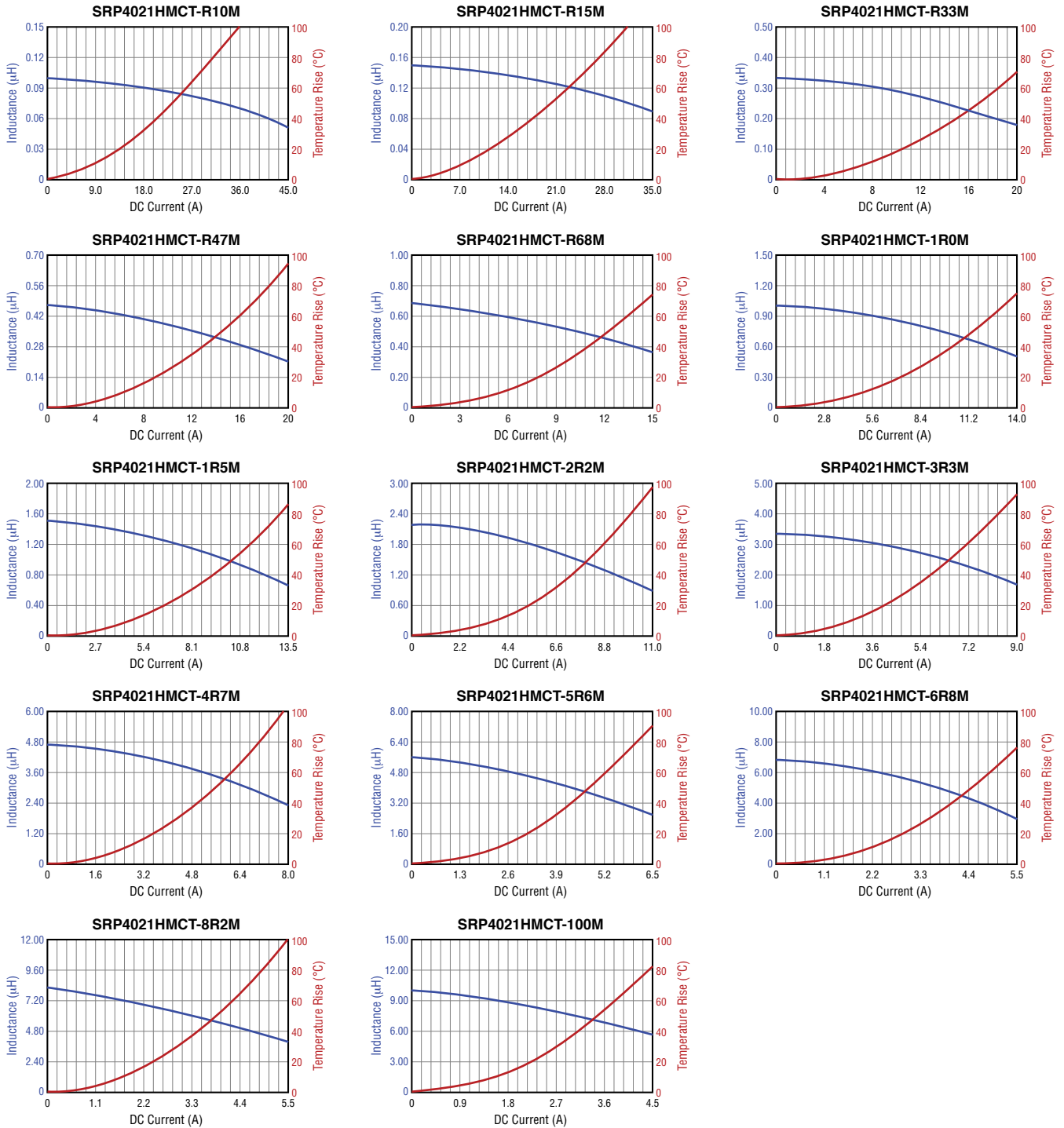
Electrical Schematic



SRP4021HMCT Series – Shielded Power Inductors



L vs. I Charts

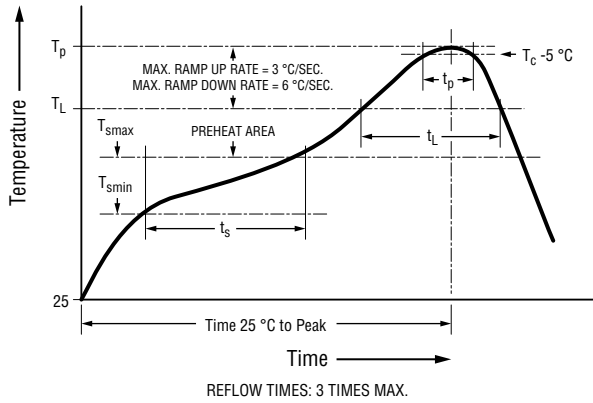


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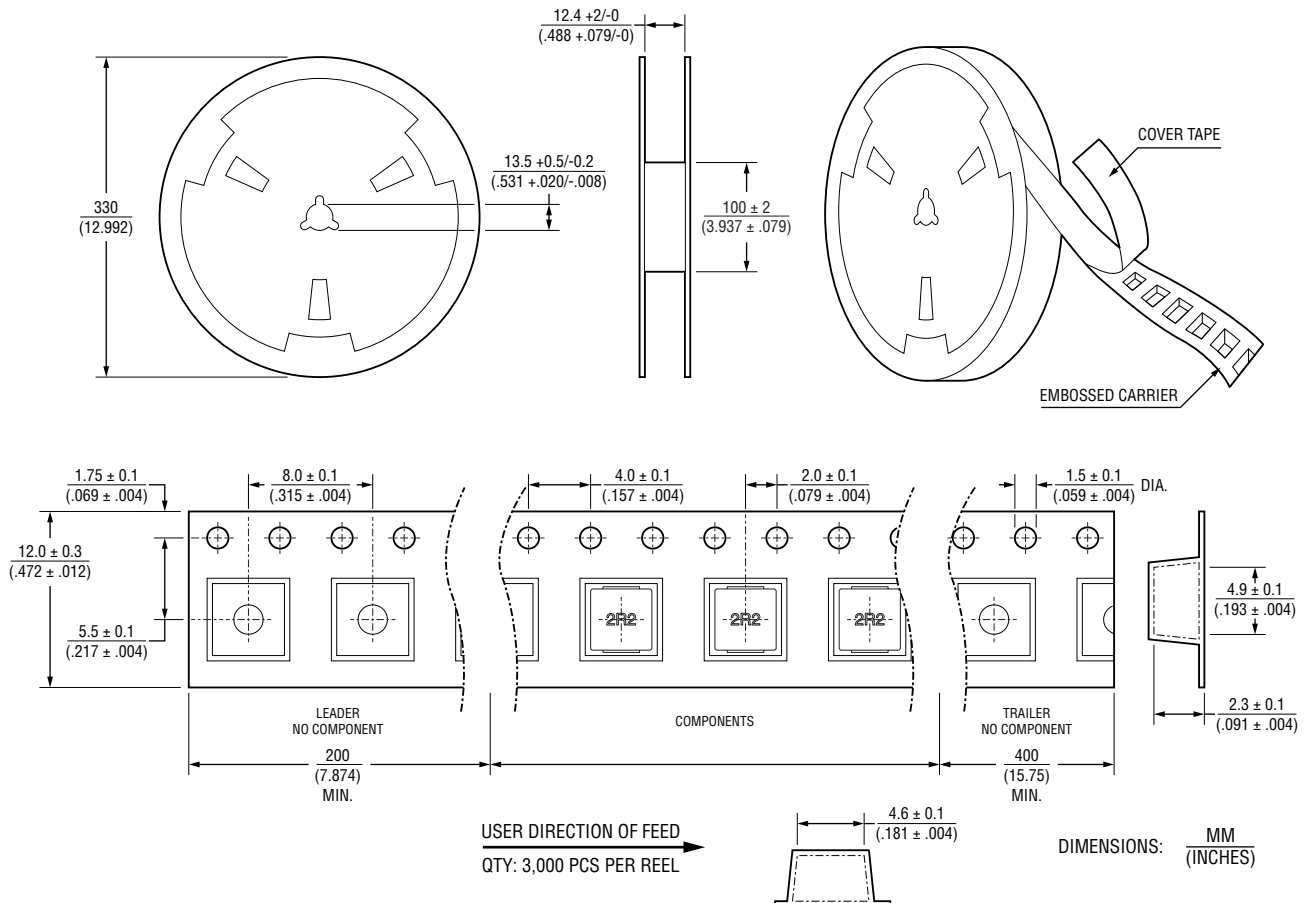


Soldering Profile



Profile Feature	Pb Free Assembly
Preheat <ul style="list-style-type: none"> - 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
Peak package body temperature (T_p)	260 °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.

Packaging Specifications



REV. 02/26

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