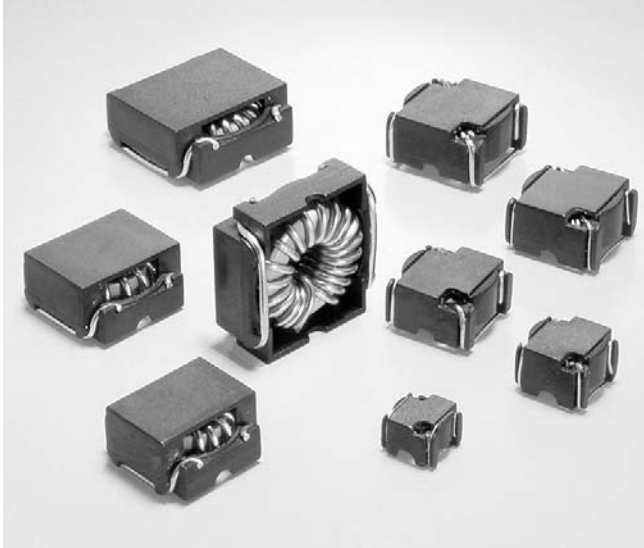


SMT Power Inductors - SPT Series



The SPT Series is designed for exceptionally high current handling in a low profile surface mount part. The self-leaded design ensures rugged reliability and the toroid winding virtually eliminates stray electromagnetic emissions.

There are two versions: the standard series with current ratings up to 8 Amps, and the high current series that can handle up to 13.9 Amps. All are rated for operation from -40 to $+130^{\circ}\text{C}$ and the materials meet UL 94V-0 rating.

In addition to the standard values shown, Coilcraft can custom engineer parts for specific applications. For free evaluation samples, contact Coilcraft or request them on the web at www.coilcraft.com.

Part number ¹	L (0A) ² ±20% (μH)	L typ ³ (μH)	DCR max (mOhm)	SRF typ ⁴ (MHz)	I _{DC} (A)	Body size
Standard series						
SPT20L-112MX_	1.1	1.01	16.0	360	3.4	1
SPT38L-382MX_	3.8	2.5	9.3	133	8.0	3
SPT30L-522MX_	5.2	3.8	19.9	60	4.8	2
SPT20L-702MX_	7.0	6.2	95.0	70	1.4	1
SPT38L-752MX_	7.5	5.1	18.7	73	5.4	3
SPT44L-792MX_	7.9	4.9	16.2	49	7.8	4
SPT30L-123MX_	12	9.4	47.2	33	2.8	2
SPT44L-143MX_	14	9.0	23.6	20	5.5	4
SPT50L-163MX_	16	9.3	19.7	19	7.2	5
SPT38L-223MX_	22	16.2	63	34	2.7	3
SPT20L-233MX_	23	17.6	320	21	1.0	1
SPT50L-263MX_	26	16.1	32	9.2	5.1	5
SPT30L-353MX_	35	29.7	166	12.0	1.4	2
SPT44L-413MX_	41	29.1	85	9.5	2.7	4
SPT38L-733MX_	73	58.1	290	5.0	1.3	3
SPT50L-733MX_	73	50	133	14.0	2.6	5
SPT30L-174MX_	170	114	640	3.3	0.94	2
SPT38L-294MX_	290	192	657	2.3	0.90	3
SPT38L-674MX_	670	383	1200	1.2	0.72	3
SPT44L-115MX_	1100	670	1908	0.73	0.70	4
SPT50L-205MX_	2000	1070	1932	0.40	0.71	5
High current series						
SPT44H-282MX_	2.8	1.68	4.6	136	13.9	6
SPT44H-422MX_	4.2	2.5	6.6	72	11.4	6
SPT50H-652MX_	6.5	3.5	7.2	46	12.4	7
SPT50H-842MX_	8.4	4.7	8.5	23	10.4	7
SPT68H-113MX_	11	6.5	8.2	20	14.0	8
SPT68H-183MX_	18	10.0	12.5	9	10.0	8

1. When ordering, please specify **packaging** code:

SPT20L-112MXD

D = 13' machine-ready reel

EIA-481 embossed plastic tape.

Body size 1: 750 per full reel.

Body sizes 2-3: 350 per full reel.

Body size 4: 300 per full reel.

Body sizes 5-6: 250 per full reel.

Body sizes 7-8: 200 per full reel.

B = Less than full reel

In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

- Inductance tested at 100 kHz, 0.1 Vrms on Agilent/HP 4192A.
 - Inductance with I_{DC} current applied tested at 100 kHz, 0.1 Vrms on Agilent/HP 4284A.
 - SRF measured on Agilent/HP 8753ES network analyzer.
 - Operating temperature range -40°C to $+130^{\circ}\text{C}$.
 - Electrical specifications at 25°C .
- For packaging data see Tape and Reel Specifications section

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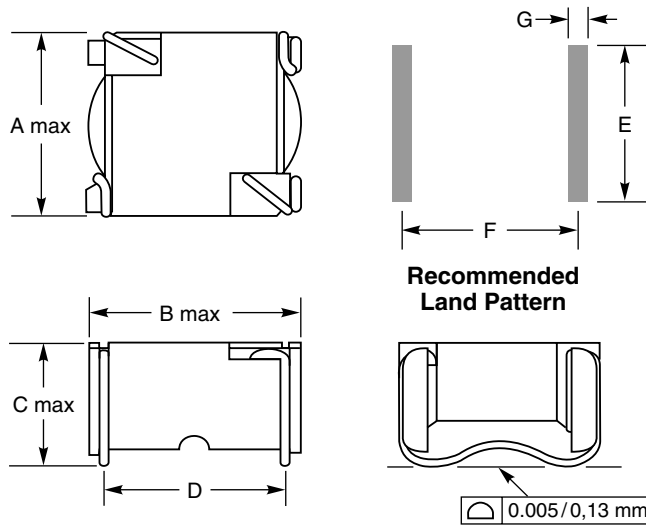
Please check our website for latest information. Document 280-1 Revised 10/17/02

1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>

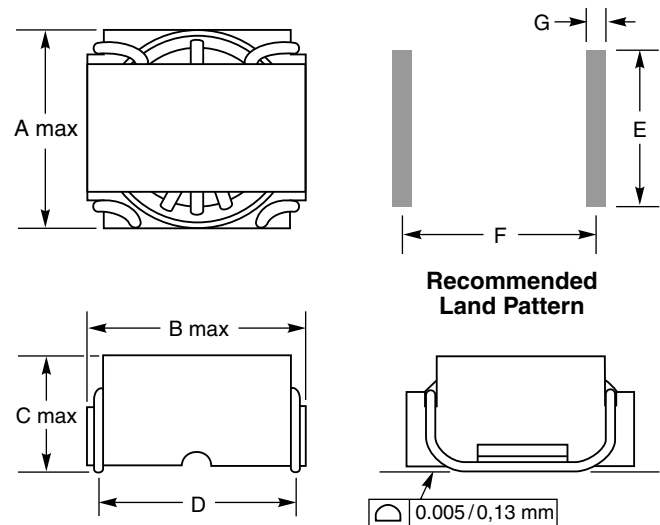
SMT Power Inductors - SPT Series

Body size 1 - 5



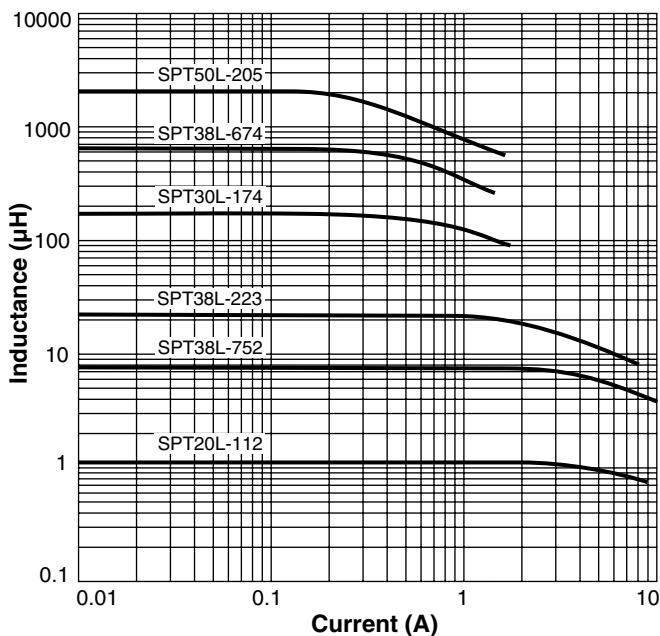
Terminations: Tin/silver over copper

Body size 6 - 8

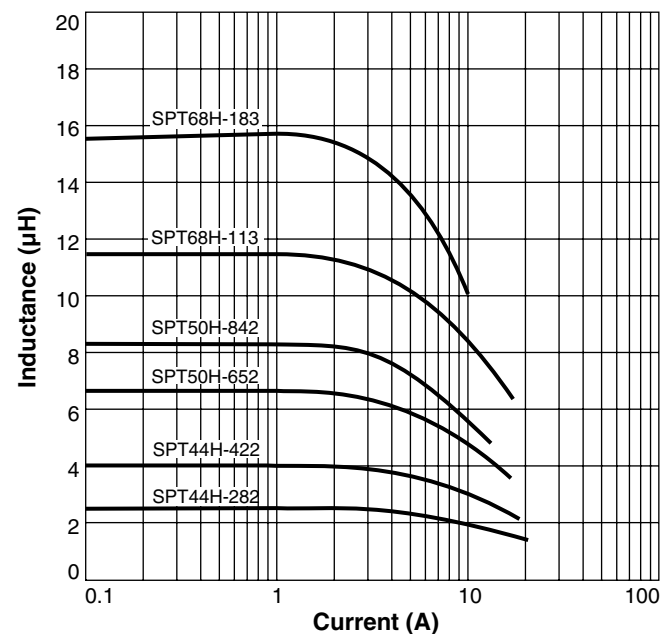


Size	A max	B max	C max	D ¹	E ²	F ²	G	
1	0.34/8,64	0.34/8,64	0.28/7,00	0.26/6,60	0.30/7,62	0.27/6,86	0.06/1,52	Unless specified, tolerance is $\pm 0.009/0,25$ 1. $\pm 0.015/0,38$ 2. $\pm 0.005/0,13$
2	0.44/11,05	0.44/11,18	0.37/9,50	0.35/8,89	0.40/10,16	0.36/9,14	0.06/1,52	
3	0.56/14,22	0.56/14,35	0.37/9,50	0.45/11,43	0.52/13,21	0.46/11,68	0.06/1,52	
4	0.59/14,99	0.61/15,62	0.41/10,50	0.50/12,70	0.55/13,97	0.51/12,95	0.06/1,52	
5	0.67/17,02	0.70/17,78	0.41/10,50	0.58/14,73	0.62/15,75	0.59/14,99	0.06/1,52	
6	0.66/16,89	0.66/16,89	0.41/10,50	0.56/14,22	0.49/12,45	0.57/14,48	0.08/2,03	
7	0.74/18,80	0.74/18,80	0.41/10,50	0.63/16,00	0.56/14,22	0.64/16,26	0.08/2,03	
8	0.94/23,88	0.94/23,88	0.41/10,50	0.82/20,83	0.70/17,78	0.83/21,08	0.08/2,03	

Typical L vs Current (Standard series)



Typical L vs Current (High current series)



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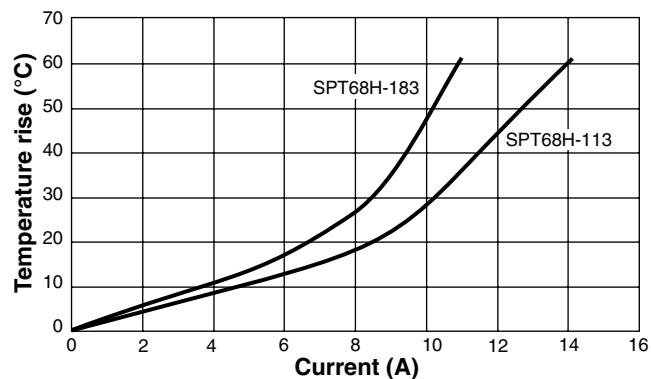
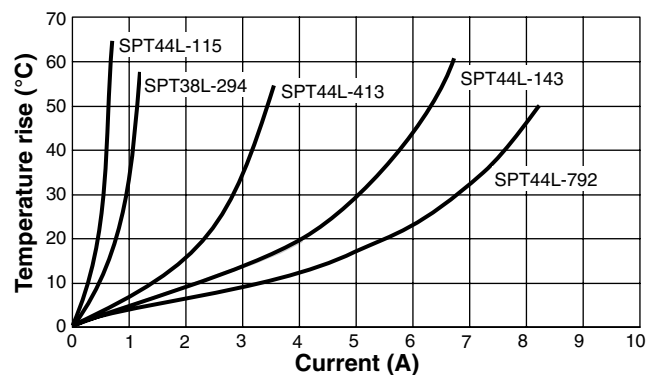
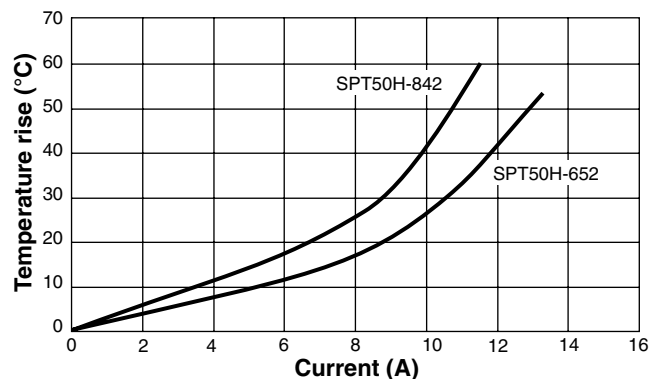
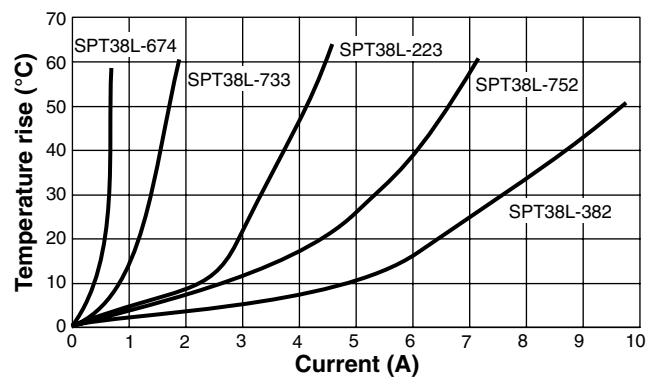
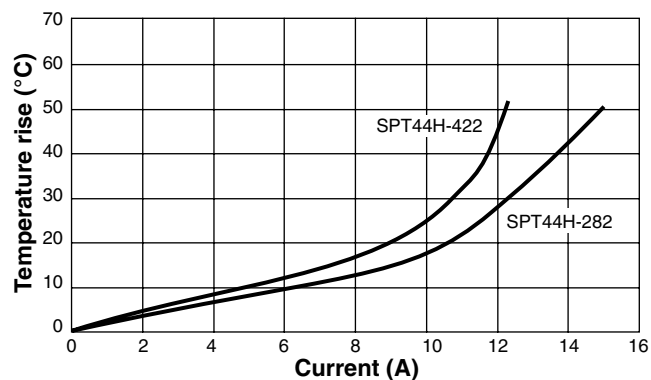
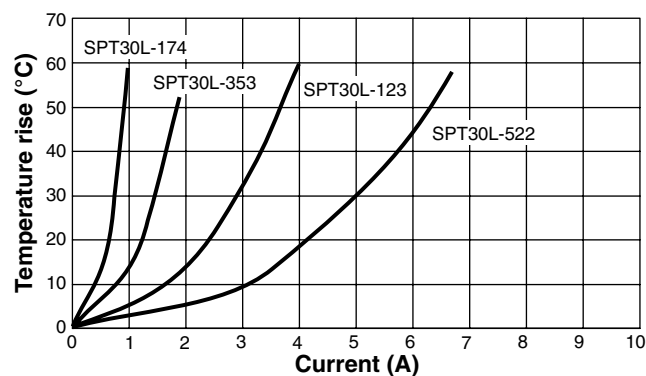
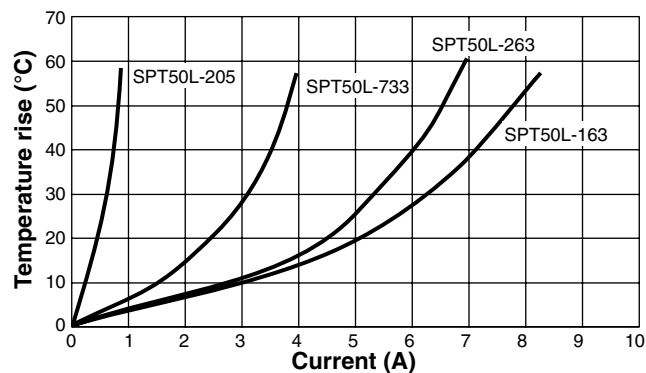
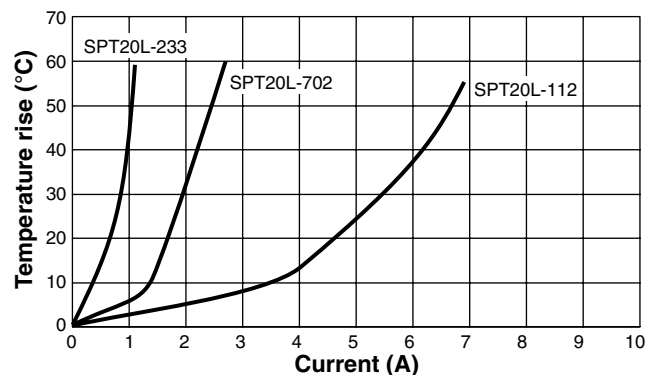
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1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web http://www.coilcraft.com

SMT Power Inductors - SPT Series

Typical Temperature Rise vs Current*



* Measured at 25°C ambient.

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