

规格确认书

SPECIFICATION

客 户

CUSTOMER:

客 户 料 号

CUSTOMER P/N:

物 料 名 称

一体成型电感

MODEL NO :

Molding Power Choke

料 号

HAMP 系列

P/N :

HAMP series

文 件 编 号

FILE NO :

22-07

日期 : 2022-07-22

承办人 : 刘俊

DATE : July 22, 2022

ISSUEDER : Liu Jun

客户确认 APPROVED BY

签名 :

日期 :

SIGN :

DATE :

结论 RESULT :

确认后请回传 PLEASE RETURN BY ONE COPY

●特征

铁合金材料，高通流，低损耗。
闭合磁路设计，漏磁干扰小。
无卤，符合 RoHS 标准。
满足 AEC-Q200 要求。
工作温度范围-55°C 至+150°C

●用途

ADAS,信息娱乐系统。
LED 灯
安全气囊。
车联网。

●品名系统

HAMP	0420	-	4R7	M	T
①	②		③	④	⑤

- ① 产品代号: 模压式贴片功率电感。
- ② 尺寸规格: 0412=4.2×4.4×1.0(mm)
0420=4.2×4.4×1.8(mm)
0520=5.2×5.4×1.8(mm)
0530=5.2×5.4×2.8(mm)
0620=6.6×7.0×1.8(mm)
0624=6.6×7.0×2.2(mm)
0630=6.6×7.0×2.8(mm)
0650=6.6×7.0×4.8(mm)
0850=8.2×8.8×4.8(mm)
1004=10.0×11.0×3.8(mm)
1005=10.0×11.5×4.8(mm)
1350=12.6×13.45×4.8(mm)
1360=12.6×13.45×5.8(mm)
1365=12.6×13.45×6.5(mm)
1770=17.15×17.15×6.7(mm)
- ③ 电感量标称值: R15=0.15μH
1R0=1.0μH
100=10μH
- ④ 电感量公差: M=±20% N=±30%
- ⑤ 包装: T=编带

●FEATURES

Metal material for large current and low loss.
Closed magnetic circuit design reduces leakage flux.
Halogen free, RoHS compliant.
AEC-Q200 verified.
Operating temperature range -55°C to +150°C

●Applications

ADAS, Infotainment system.
LED lighting.
Airbag.
Internet of vehicle.

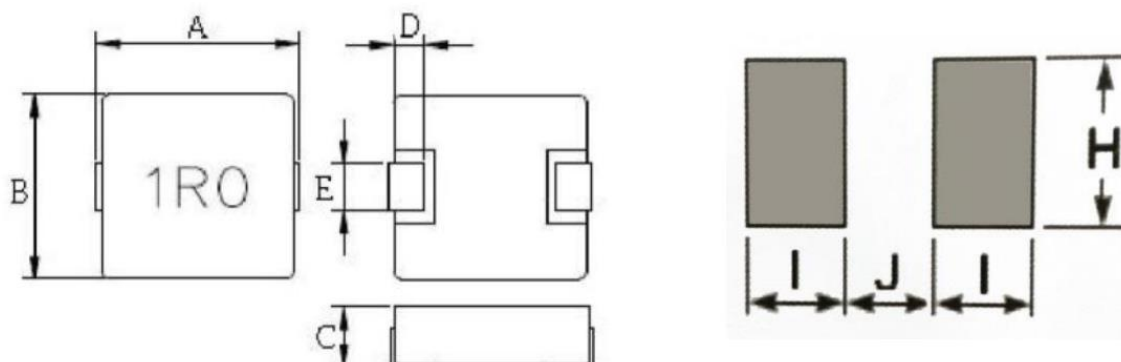
●Product Identification

HAMP	0420	-	4R7	M	T
①	②		③	④	⑤

- ① Product symbol: Molded SMD Power Inductors.
- ② Dimension: 0412=4.2×4.4×1.0(mm)
0420=4.2×4.4×1.8(mm)
0520=5.2×5.4×1.8(mm)
0530=5.2×5.4×2.8(mm)
0620=6.6×7.0×1.8(mm)
0624=6.6×7.0×2.2(mm)
0630=6.6×7.0×2.8(mm)
0650=6.6×7.0×4.8(mm)
0850=8.2×8.8×4.8(mm)
1004=10.0×11.0×3.8(mm)
1005=10.0×11.5×4.8(mm)
1350=12.6×13.45×4.8(mm)
1360=12.6×13.45×5.8(mm)
1365=12.6×13.45×6.5(mm)
1770=17.15×17.15×6.7(mm)
- ③ Inductance: R15=0.15μH
1R0=1.0μH
100=10μH
- ④ Tolerance: M=±20% N=±30%
- ⑤ Packing: T=Tape & Reel

●结构及尺寸

Structure And Dimensions



Units:mm

series	A	B	C	D	E	I Typ.	J Typ	H Typ.
0412	4.4±0.35	4.2±0.25	1.0±0.2	0.8±0.3	2.0±0.3	1.5	2.2	2.5
0420	4.4±0.35	4.2±0.25	1.8±0.2	1.1±0.3	2.0±0.3	1.5	2.2	2.5
0518	5.4±0.35	5.2±0.2	1.6±0.2	1.2±0.3	2.2±0.3	1.9	2.2	2.5
0520	5.4±0.35	5.2±0.2	1.8±0.2	1.2±0.3	2.3±0.3	1.9	2.2	2.5
0530	5.4±0.35	5.2±0.2	2.8±0.2	1.2±0.3	2.3±0.3	1.9	2.2	2.5
0618	7.0±0.30	6.6±0.2	1.6±0.2	1.6±0.3	3.0±0.3	2.35	3.4	3.5
0620	7.0±0.30	6.6±0.2	1.8±0.2	1.6±0.3	3.0±0.3	2.35	3.4	3.5
0624	7.0±0.30	6.6±0.2	2.2±0.3	1.6±0.3	3.0±0.3	2.35	3.4	3.5
0630	7.0±0.30	6.6±0.2	2.8±0.2	1.6±0.3	3.0±0.3	2.35	3.4	3.5
0650	7.0±0.30	6.6±0.2	4.8±0.2	1.6±0.3	3.0±0.3	2.35	3.4	3.5
0850	8.6±0.40	8.0±0.3	4.8±0.2	1.8±0.3	3.0±0.3	2.55	4.2	3.8
1040	11.5MAX	10.0±0.3	3.8±0.2	2.0±0.5	3.0±0.5	4.1	5.4	4.1
1050	11.5MAX	10.0±0.3	4.8±0.2	2.0±0.5	3.0±0.5	4.1	5.4	4.1
1340	13.50±0.50	12.8±0.5	4.0MAX	2.0±0.5	2.2±0.5	3.25	8	5.5
1350	13.45±0.35	12.6±0.3	4.8±0.2	2.0±0.5	4.3±0.5	3.25	8	5.5
1360	13.45±0.35	12.6±0.3	5.8±0.2	2.0±0.5	3.8±0.5	3.25	8	5.5
1365	13.45±0.35	12.6±0.3	6.5MAX	2.0±0.5	3.8±0.5	3.25	8	5.5
1770	17.5±0.5	17.0±0.5	7.0MAX	2.5±0.5	12.0±0.5	3.5	11.2	12.3

●规格

Specifications

HAMP0412 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0412-R22MT	0.22±20%	11	8.8	11	6.5	7
HAMP0412-R47MT	0.47±20%	21	5.4	6.8	5.2	6
HAMP0412-R68MT	0.68±20%	36	4.8	6	4.2	4.7
HAMP0412-1R0MT	1.0±20%	47	4.4	5.5	3.8	4.5
HAMP0412-1R5MT	1.5±20%	75	3.2	4	2.7	3.25
HAMP0412-2R2MT	2.2±20%	83.5	2.4	3	2.2	2.75
HAMP0412-3R3MT	3.3±20%	160	2.38	2.7	1.77	2
HAMP0412-4R7MT	4.7±20%	195	1.8	2.2	1.45	1.8

HAMP0420 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0420-R10MT	0.1±20%	4	17.6	22	11.2	13
HAMP0420-R22MT	0.22±20%	6.6	10	12.5	8.2	9.5
HAMP0420-R33MT	0.33±20%	11	9.6	12	8.6	10
HAMP0420-R47MT	0.47±20%	14	7.6	9.5	6.65	7.5
HAMP0420-R56MT	0.56±20%	16	7.2	9	6.1	7
HAMP0420-R68MT	0.68±20%	18	6.4	8	6.15	7
HAMP0420-1R0MT	1.0±20%	27	5.6	7	5.4	6
HAMP0420-1R2MT	1.2±20%	27	5.2	6.5	5.4	6
HAMP0420-1R5MT	1.5±20%	46	4.4	5.5	4.3	5
HAMP0420-2R2MT	2.2±20%	58	4.0	5	3.8	4.5
HAMP0420-3R3MT	3.3±20%	87	2.8	3.5	2.8	3.3
HAMP0420-4R7MT	4.7±20%	105	2.4	3	2.2	2.8
HAMP0420-6R8MT	6.8±20%	175	2.0	2.5	1.9	2.4
HAMP0420-100MT	10±20%	282	1.6	2	1.3	1.6

HAMP0518 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0518-R47MT	0.47±20%	9	9.6	15.5	9.5	10.5
HAMP0518-R56MT	0.56±20%	10	8.8	15	8.2	9.5
HAMP0518-R68MT	0.68±20%	13.8	9.3	11.2	7.7	8.9
HAMP0518-1R0MT	1.0±20%	17	7.2	9	7.2	8
HAMP0518-1R5MT	1.5±20%	26	6.4	9	6.6	7.5
HAMP0518-2R2MT	2.2±20%	35	4.8	6.5	4.2	5
HAMP0518-3R3MT	3.3±20%	58	3.84	5	3.8	4.5
HAMP0518-4R7MT	4.7±20%	85	3.2	4	3.0	3.5
HAMP0518-6R8MT	6.8±20%	120	2.72	3.4	2.4	2.8
HAMP0518-100MT	10±20%	155	2	3	2.2	2.5

HAMP0520 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0520-R22MT	0.22±20%	8	12.5	15	9	19
HAMP0520-R68MT	0.68±20%	18	11	11.2	7	8.9
HAMP0520-1R0MT	1.0±20%	18.5	7.5	9.5	7	8
HAMP0520-1R5MT	1.5±20%	30	8	8.5	5.5	7.5
HAMP0520-2R2MT	2.2±20%	34	5.5	7	4.5	5
HAMP0520-3R3MT	3.3±20%	58	4.7	5.5	4.1	4.5
HAMP0520-4R7MT	4.7±20%	78	3.2	4.5	3.0	3.5
HAMP0520-6R8MT	6.8±20%	120	2.8	3.5	2.1	2.8
HAMP0520-8R2MT	8.2±20%	150	2.3	3	2.1	2.6
HAMP0520-100MT	10±20%	175	2.2	3	2	2.5

HAMP0530 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0530-R10MT	0.10±20%	3	24	30	23	25
HAMP0530-R33MT	0.33±20%	5.5	14.4	18	13.1	14
HAMP0530-R47MT	0.47±20%	8.5	9.6	12	10	11
HAMP0530-R68MT	0.68±20%	12	9.2	11.5	8.2	9.0
HAMP0530-1R0MT	1.0±20%	14	8	10	7.8	8.5
HAMP0530-1R2MT	1.2±20%	16	7.6	9.5	7.85	8.5
HAMP0530-1R5MT	1.5±20%	25	7.2	9	7.6	8.2
HAMP0530-2R2MT	2.2±20%	29	5.6	7	6.4	7.0
HAMP0530-3R3MT	3.3±20%	38	4.8	6.0	5	5.5
HAMP0530-4R7MT	4.7±20%	60	3.68	4.6	4	4.5
HAMP0530-6R8MT	6.8±20%	90	2.88	3.6	2.9	3.5
HAMP0530-100MT	10±20%	125	2.8	3.5	2.8	3.2
HAMP0530-150MT	15±20%	180	2.0	2.2	1.6	1.7
HAMP0530-220MT	22±20%	248	2.0	2.3	1.5	1.7

HAMP0618 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0618-R10NT	0.1±30%	2.8	24.0	26.0	22.0	24.0
HAMP0618-R15MT	0.15±20%	3	28.0	30.0	20.0	22.0
HAMP0618-R22MT	0.22±20%	4.5	23.0	25.0	14.0	15.0
HAMP0618-R33MT	0.33±20%	5	22.0	24.0	13.0	14.0
HAMP0618-R47MT	0.47±20%	8.5	18.0	20.0	10.5	11.5
HAMP0618-R68MT	0.68±20%	12	15.0	16.0	9.0	10.0
HAMP0618-1R0MT	1.0±20%	18	11.0	12.0	7.5	8.0
HAMP0618-1R5MT	1.5±20%	30	9.0	10.0	6.5	7.0
HAMP0618-2R2MT	2.2±20%	42	7.5	8.0	4.5	5.0
HAMP0618-3R3MT	3.3±20%	58	6.5	7.0	4.5	5.0
HAMP0618-4R7MT	4.7±20%	75	5.0	5.5	3.8	4.0
HAMP0618-6R8MT	6.8±20%	105	4.2	4.5	3.0	3.2
HAMP0618-100MT	10±20%	165	3.4	3.7	2.1	2.3

HAMP0620 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current ³		Heat Rating Current ⁴	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0620-R10MT	0.1±20%	2.3	24.0	38.0	22.0	25.0
HAMP0620-R22MT	0.22±20%	3.5	22.0	24.0	14.0	22.0
HAMP0620-R47MT	0.47±20%	8.4	17.0	18.0	10.0	11.5
HAMP0620-R68MT	0.68±20%	12	15.0	16.5	8.8	9.5
HAMP0620-1R0MT	1.0±20%	16	11.0	12.0	7.5	8.5
HAMP0620-1R5MT	1.5±20%	26	8.5	9.2	6.5	8.0
HAMP0620-2R2MT	2.2±20%	35	7.0	8.0	5.0	7.0
HAMP0620-3R3MT	3.3±20%	50	5.5	6.0	4.0	4.5
HAMP0620-4R7MT	4.7±20%	62	4.5	5.0	3.5	4.0
HAMP0620-6R8MT	6.8±20%	110	4.0	4.5	2.8	3.0
HAMP0620-100MT	10±20%	155	3.4	4.0	2.1	2.3
HAMP0620-220MT	22±20%	350	2.0	2.3	1.5	1.8

HAMP0624 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current ³		Heat Rating Current ⁴	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0624-R10MT	0.10±20%	1.85	36	60	21	23
HAMP0624-R15MT	0.15±20%	2.85	34	35	18	22
HAMP0624-R22MT	0.22±20%	3.2	24	30	16	21
HAMP0624-R33MT	0.33±20%	4.1	19.6	24.5	15	18
HAMP0624-R47MT	0.47±20%	5.1	21	22	13	15
HAMP0624-R56MT	0.56±20%	6.5	13.6	17	11.5	13
HAMP0624-R82MT	0.82±20%	9.5	12.8	16	10	12
HAMP0624-1R0MT	1.0±20%	13.5	12	16	8	9
HAMP0624-1R5MT	1.5±20%	20	10.8	15	7	9
HAMP0624-2R2MT	2.2±20%	28	8	10	6.2	7
HAMP0624-3R3MT	3.3±20%	39	6.4	8	4.8	5.5
HAMP0624-4R7MT	4.7±20%	50	5.2	7.5	4.3	5
HAMP0624-6R8MT	6.8±20%	70	4.8	6	3.2	4
HAMP0624-100MT	10±20%	101	3.2	4	2.4	3.1
HAMP0624-150MT	15±20%	160	2.64	3.3	2.0	2.5

HAMP0630 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0630-R22MT	0.22±20%	3	27.5	34	21	24
HAMP0630-R33MT	0.33±20%	3.5	20	25	19	21
HAMP0630-R47MT	0.47±20%	4.1	16	20	16.5	18
HAMP0630-R56MT	0.56±20%	4.5	14.5	18	15	16.5
HAMP0630-R68MT	0.68±20%	5.3	13.6	17	14.5	16
HAMP0630-R82MT	0.82±20%	6.0	13	16	12.8	14
HAMP0630-1R0MT	1.0±20%	7.4	13	15	11	12
HAMP0630-1R5MT	1.5±20%	12.1	9.6	14	9.5	12
HAMP0630-2R2MT	2.2±20%	15	8	10	8.5	9.5
HAMP0630-3R3MT	3.3±20%	22	7.6	9.5	7.5	8.5
HAMP0630-4R7MT	4.7±20%	33	7.5	9	5	6
HAMP0630-5R6MT	5.6±20%	42	5.2	6.5	4.8	5.5
HAMP0630-6R8MT	6.8±20%	48	4.8	6	4.2	5
HAMP0630-8R2MT	8.2±20%	60	4.4	5.5	4.2	5
HAMP0630-100MT	10±20%	68	4.4	5.5	3.8	4.5
HAMP0630-150MT	15±20%	115	3.2	4.0	2.3	3
HAMP0630-220MT	22±20%	170	2.4	3	2	2.5
HAMP0630-330MT	33±20%	270	2	2.5	1.6	2
HAMP0630-470MT	47±20%	385	1.6	2	1.2	1.5

HAMP0650 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0650-R47MT	0.47±20%	3.9	16.8	21	17.0	20
HAMP0650-R68MT	0.68±20%	4.5	14.4	18	14.5	16.5
HAMP0650-1R0MT	1.0±20%	6.6	12.8	16	10	12
HAMP0650-1R5MT	1.5±20%	10	10.4	13	8.2	9.5
HAMP0650-2R2MT	2.2±20%	12.5	8.8	11	8.0	9
HAMP0650-3R3MT	3.3±20%	22	8.0	10	7.6	8.5

HAMP0650 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0650-4R7MT	4.7±20%	29	6.4	8	5	6
HAMP0650-6R8MT	6.8±20%	41	5.04	6.3	4	5.8
HAMP0650-8R2MT	8.2±20%	48	4.4	5.5	4.8	5.5
HAMP0650-100MT	10±20%	60	4.24	5.3	3.8	4.5
HAMP0650-150MT	15±20%	90	3.2	4	2.6	3.1
HAMP0650-220MT	22±20%	140	2.8	3.5	2	2.6
HAMP0650-330MT	33±20%	190	2.4	3.0	1.8	2.3
HAMP0650-470MT	47±20%	230	2.08	2.6	1.5	2

HAMP0850 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP0850-1R0MT	1.0±20%	5.5	18.2	20	14	17
HAMP0850-2R2MT	2.2±20%	9	15	16	11	11.5
HAMP0850-3R3MT	3.3±20%	13.5	11	13	9.5	11
HAMP0850-4R7MT	4.7±20%	21	10.5	11	8.5	10
HAMP0850-6R8MT	6.8±20%	33	8.8	10	7	8
HAMP0850-100MT	10.0±20%	40	8	9	6	7.5
HAMP0850-150MT	15.0±20%	65	6.5	7.5	4	5.5
HAMP0850-220MT	22.0±20%	80	6	6.5	3.5	4.5
HAMP0850-330MT	33.0±20%	145	4.5	4.8	2.5	3.5
HAMP0850-470MT	47.0±20%	180	2.6	3.2	2.1	2.7

HAMP1040 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1040-R15MT	0.15±20%	0.65	60	75	40	45
HAMP1040-R22MT	0.22±20%	1	48	60	30	35

HAMP1040 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μH	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1040-R30MT	0.30±20%	1.1	36	45	30	35
HAMP1040-R36MT	0.36±20%	1.2	36	45	25	30
HAMP1040-R47MT	0.47±20%	1.7	32	40	25	30
HAMP1040-R56MT	0.56±20%	1.8	26.4	33	20	25
HAMP1040-R68MT	0.68±20%	2.4	24	30	19	23
HAMP1040-R80MT	0.80±20%	2.7	23.2	29	19	23
HAMP1040-1R0MT	1.0±20%	3.3	22.4	28	16	19
HAMP1040-1R5MT	1.5±20%	4.2	19.2	24	14	16
HAMP1040-2R2MT	2.2±20%	7	13.2	16.5	10	12
HAMP1040-3R3MT	3.3±20%	11.8	12.8	16	9.5	11
HAMP1040-4R7MT	4.7±20%	20	10.4	13	7.5	9
HAMP1040-6R8MT	6.8±20%	25	9.6	12	7	8.5
HAMP1040-8R2MT	8.2±20%	27	7.2	9	6.8	8
HAMP1040-100MT	10±20%	30	6.8	8.5	6.9	7.8
HAMP1040-150MT	15±20%	45	5.6	7	5.6	6.5
HAMP1040-220MT	22±20%	66	4.4	5.5	4.2	5
HAMP1040-330MT	33±20%	92	3.84	5	3.8	4.4
HAMP1040-470MT	47±20%	155	3.1	3.5	2.8	3.3
HAMP1040-680MT	68±20%	195	2.4	3	2	2.5
HAMP1040-820MT	82±20%	285	2.3	2.8	2.1	2.3
HAMP1040-101MT	100±20%	340	2.1	2.3	1.8	2

HAMP1050 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1050-R22MT	0.22±20%	0.8	57.5	60	32.5	37
HAMP1050-1R0MT	1.0±20%	3	28	30	20.3	23
HAMP1050-1R5MT	1.5±20%	3.8	22	25	18.5	21
HAMP1050-2R2MT	2.2±20%	6	16.8	19	13.2	15

HAMP1050 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1050-3R3MT	3.3±20%	11	14	16	11.5	13
HAMP1050-4R7MT	4.7±20%	15	13.2	15	9.7	11
HAMP1050-6R8MT	6.8±20%	18.5	12.3	14	8.0	9
HAMP1050-100MT	10±20%	28	8.8	10	7.0	8
HAMP1050-150MT	15±20%	42	6.5	7.5	5.7	6.5
HAMP1050-220MT	22±20%	50	5.3	6	5.0	5.5
HAMP1050-330MT	33±20%	86	4.6	5.2	4.2	4.8
HAMP1050-470MT	47±20%	127	4.0	4.5	3.2	3.7
HAMP1050-680MT	68±20%	180	2.8	3.5	2.4	2.7
HAMP1050-101MT	100±20%	290	2.5	2.8	1.8	2.1

HAMP1340 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1340-R47MT	0.47±20%	1.9	38.4	45	29	33
HAMP1340-R68MT	0.68±20%	3.5	37.6	40	24	28
HAMP1340-1R0MT	1.0±20%	7.5	28	35	20	24
HAMP1340-1R5MT	1.5±20%	9.5	24.4	30.5	17	20
HAMP1340-2R2MT	2.2±20%	11.5	18	20	14	15
HAMP1340-3R3MT	3.3±20%	16	16	18	11	13
HAMP1340-4R7MT	4.7±20%	20	15	16	8	9
HAMP1340-6R8MT	6.8±20%	26	10	11	7	8
HAMP1340-100MT	10±20%	45	7	8	5.8	6.5
HAMP1340-220MT	22±20%	74	6	7	3.8	4.5
HAMP1340-330MT	33±20%	95	5	6	3.5	4

HAMP1350 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current ³		Heat Rating Current ⁴	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1350-R22MT	0.22±20%	0.7	60	75	45	50
HAMP1350-R36MT	0.36±20%	0.85	40	50	37	42
HAMP1350-R50MT	0.50±20%	1.15	38.4	48	33	38
HAMP1350-R68MT	0.68±20%	1.55	36.8	46	29	33
HAMP1350-R82MT	0.82±20%	1.67	31.2	39	26	30
HAMP1350-1R0MT	1.0±20%	2.2	28	35	22	26
HAMP1350-1R5MT	1.5±20%	3.2	26.4	33	19	23
HAMP1350-2R2MT	2.2±20%	5	19.2	24	13	15
HAMP1350-3R3MT	3.3±20%	7	17.6	22	12	14
HAMP1350-4R7MT	4.7±20%	9	16	20	11	13
HAMP1350-6R8MT	6.8±20%	18	12.8	16	10	12
HAMP1350-8R2MT	8.2±20%	20	11	13	8.2	9.5
HAMP1350-100MT	10±20%	22	9.6	12	8	9
HAMP1350-150MT	15±20%	30	8	10	7	8
HAMP1350-220MT	22±20%	58	5.2	6.5	3.8	4.5
HAMP1350-330MT	33±20%	84	4.8	6	2.8	3.5
HAMP1350-470MT	47±20%	130	4.0	5	2.6	3

HAMP1360 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current ³		Heat Rating Current ⁴	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1360-1R5MT	1.5±20%	2.9	27	30	23	26
HAMP1360-2R2MT	2.2±20%	4.5	24	27	18	22
HAMP1360-3R3MT	3.3±20%	7.5	21	25	14	17
HAMP1360-4R7MT	4.7±20%	11	19	20	12	16
HAMP1360-5R6MT	5.6±20%	12	17	18	11	13
HAMP1360-6R8MT	6.8±20%	15	15.2	17	10	12
HAMP1360-8R2MT	8.2±20%	20	10.8	13.5	9	10
HAMP1360-100MT	10±20%	22	11.1	12.5	8.5	10

HAMP1360 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	mΩ	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1360-150MT	15±20%	35	7.2	9	7	8
HAMP1360-180MT	18±20%	36	6.4	8	6.5	7.5
HAMP1360-220MT	22±20%	40	6	7.5	6	7
HAMP1360-270MT	27±20%	60	5.2	6.5	5	6
HAMP1360-330MT	33±20%	75	4.8	6	4.8	5.5
HAMP1360-470MT	47±20%	90	4.4	5.5	4.2	5
HAMP1360-680MT	68±20%	140	3.6	4.5	3.2	4
HAMP1360-820MT	82±20%	165	4	5	3	3.5
HAMP1360-101MT	100±20%	200	2.8	3.5	2.5	3.2

HAMP1365 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V,±20 %	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	Ω	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1365-2R2MT	2.2	4.5	-	28	-	21
HAMP1365-4R7MT	4.7	9	-	24	-	15
HAMP1365-5R6MT	5.6	11	-	22.5	-	13
HAMP1365-6R8MT	6.8	13.5	-	19	-	12
HAMP1365-8R2MT	8.2	16	-	13.5	-	11
HAMP1365-100MT	10	20.5	-	12.5	-	10
HAMP1365-150MT	15	29	-	9	-	8.5
HAMP1365-220MT	22	39.5	-	7.5	-	7
HAMP1365-270MT	27	56	-	6.5	-	6
HAMP1365-330MT	33	75	-	6	-	5.5
HAMP1365-470MT	47	90	-	5.5	-	5
HAMP1365-680MT	68	140	-	4.5	-	4
HAMP1365-101MT	100	200	-	3.5	-	3

HAMP1770 系列 (TYPE)

Part Number	Inductance	DC Resistance	Saturation Current'3		Heat Rating Current'4	
	100kHz,1V,± 20 %	Max.	Max.	Typ.	Max.	Typ.
Units	μ H	Ω	A		A	
Symbol	L	DCR	Isat		Irms	
HAMP1770-2R2MT	2.2	2.5	-	34	-	29
HAMP1770-3R3MT	3.3	3.95	-	30	-	24
HAMP1770-4R7MT	4.7	4.75	-	24	-	21
HAMP1770-6R8MT	6.8	7.5	-	22	-	17
HAMP1770-8R2MT	8.2	8.7	-	20	-	13
HAMP1770-100MT	10	9.9	-	19	-	12
HAMP1770-150MT	15	17	-	14.5	-	11
HAMP1770-220MT	22	23	-	11.5	-	8.5
HAMP1770-330MT	33	37	-	10	-	8
HAMP1770-470MT	47	47	-	7.5	-	6
HAMP1770-680MT	68	85	-	6.5	-	5.2
HAMP1770-101MT	100	130	-	5	-	3.7

Notes

All test data is referenced to 25°C ambient.

Rated current:Isat or Irms,which ever is smaller.

Irms (A):DC current(A)that will cause an approximate ΔT of 40°C.(reference ambient temperature is 25°C)

Isat(A):DC current(A)that will cause L0 to drop approximately 30%.

The part temperature(ambient+temp rise)should not exceed 150°C under worst case operating

conditions.Circuit design,component placement,PWB trace size and thickness,airflow and other cooling provisions all affect the part temperature.Part temperature should be verified in the end application.

Absolute maximum voltage 30VDC.

● Test and Measurement Procedures

Test Conditions

1 Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

- a. Ambient Temperature: 20±15℃
- b. Relative Humidity: 65±20%
- c. Air Pressure: 86 KPa to 106 KPa

2 If any doubt on the results, measurements/tests should be made within the following limits:

- a. Ambient Temperature: 20±2
- b. Relative Humidity: 65±5%
- c. Air Pressure: 86KPa to 106 KPa

3 Visual Examination

- a. Inspection Equipment: 10 X magnifier

4 Electrical Test

DC Resistance (DCR)

- a. Refer to **Appendix A**.
- b. Test equipment (Analyzer): HIOKI3540 or equivalent.

Inductance (L)

- a. Refer to **Appendix A**.
- b. Test equipment: Wayne kerr3260+3265B or equivalent.

Rated Current

- a. Refer to **Appendix A**.
- b. Test equipment: Wayne kerr3260+3265B, Agilent E3633A, R2M-2H3 or equivalent.
- c. Definition of Rated Current (Ir): With the condition of the DC current pass, the inductance decrease approximate 30% of the standard value, compare to the temperature rise approximate 40℃, the smaller is Rated Current.(reference environment temperature:20℃)

Mechanical Reliability		
Item	Specification and Requirement	Test Method
Solderability	1. No case deformation or change in appearance 2. New solder coverage More than 95%	1.Preheat: 150℃±5℃ , 60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃ , flux 3.0S±0.5S.
Mechanical shock	1. No case deformation or change in appearance 2. $\Delta L/L_0 \leq \pm 10\%$	1. Peak value: 100G 2. Pulse time: 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
Mechanical vibration	1. No case deformation or change in appearance 2. $\Delta L/L_0 \leq \pm 10\%$	1. Reflow: 2times 2. Frequency: 10HZ~2000HZ~10HZ, 20 Min/Cycles 3. Amplitude: 1.52 mm 4. Directions: X,Y,Z 5. Time: 12 cycle / direction

更多资讯, 请点击宏创捷官网 more information, Please click: www.hcjdz.com

Endurance Reliability		
Item	Specification and Requirement	Test Method
Thermal Shock	Inductance change: Within $\pm 10\%$ Without distinct damage in appearance	1. Repeat 100 cycles as follow: ($-55 \pm 2^\circ\text{C}$; 30 ± 3 min) → (Room temp., 5 min) → ($+150 \pm 2^\circ\text{C}$, 30 ± 3 min) → (Room temp., 5 min) 2. Recovery: $48 + 4 / -0$ hours of recovery under the standard condition after the test.
Humidity Resistance	Inductance change: Within $\pm 10\%$ Without distinct damage in appearance	1. Reflow 2 times, 2. 85°C , 85%RH, 1000 hours 3. Measured at room temperature after placing for 24 ± 2 hours
Low temperature storage	Inductance change: Within $\pm 10\%$ Without distinct damage in appearance	1. Temperature: $-55 \pm 2^\circ\text{C}$ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24 ± 2 hours
High temperature storage	Inductance change: Within $\pm 10\%$ Without distinct damage in appearance	1. Temperature: $+150 \pm 2^\circ\text{C}$ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24 ± 2 hours

● Recommended Soldering Technologies

(1) Re-flowing Profile

Preheat condition: $150 \sim 200^\circ\text{C} / 60 \sim 120\text{sec}$.

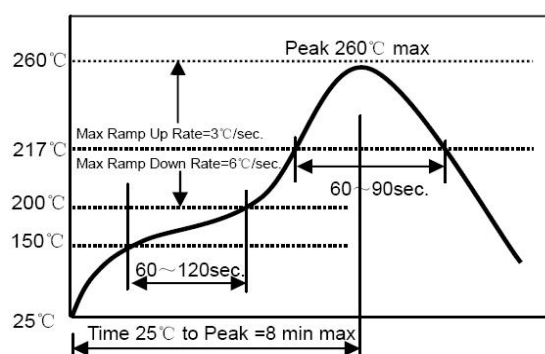
Allowed time above 217°C : $60 \sim 90\text{sec}$.

Max temp: 260°C

Max time at max temp: 10 sec.

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x max



(2) Iron Soldering Profile

Iron soldering power: Max. 30W

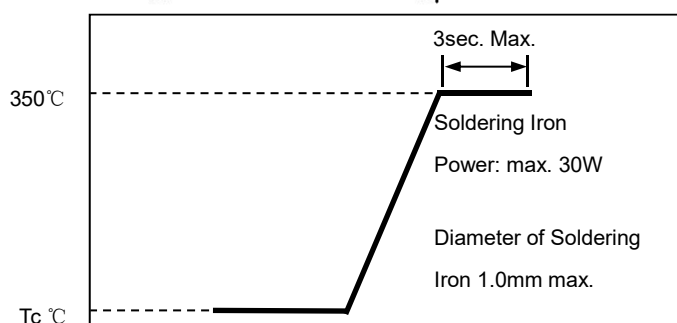
Pre-heating: $150^\circ\text{C} / 60\text{sec}$.

Soldering Tip temperature: 350°C Max

Soldering time: 3sec. Max.

Solder paste: Sn/3.0Ag/0.5Cu

Max. 1 times for iron soldering



●Warning and Attentions

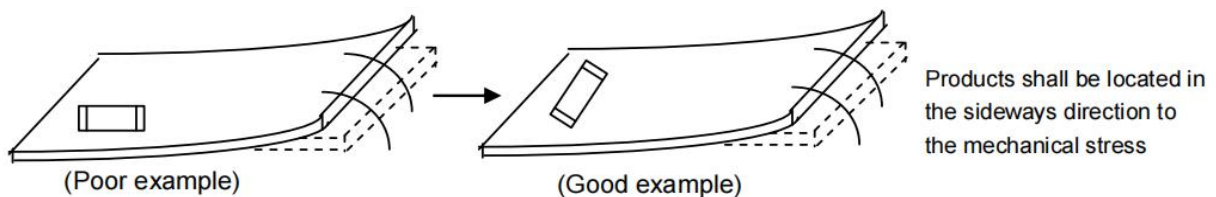
Precautions on Use

- (1) Always wear static control bands to protect against ESD.
- (2) Any devices used with the products (soldering irons, measuring instruments) should be properly grounded.
- (3) Keep bare hands and metal conductors (i.e., metal desk) away from electrodes or conductive areas that lead to electrodes.
- (4) Preheat when soldering.
- (5) Don't apply current in excess of the rated current value. It may reduce the impedance or inductance, or cause damage to components due to over-current.
- (6) For magnetic products, keep clear of anything that may generate magnetic fields such as speakers and coils. Use non-magnetic tweezers when handing the chips.
- (7) When soldering, the electrical characteristics may be varied due to hot energy and mechanical stress.
- (8) When coating products with resin, the relatively high resin curing stress may change the electrical characteristics. For exterior coating, select resin carefully so that electrical and mechanical performance of the product is not affected. Before using, please evaluate reliability with the product mounted in your application set.
- (9) When mount chips with adhesive in preliminary assembly, do appropriate check before the soldering stage, i.e., the size of land pattern, type of adhesive, amount applied, hardening of the adhesive on proper usage and amounts of adhesive to use.
- (10) Mounting density: Add special attention to radiating heat of products when mounting other components nearby. The excessive heat by other products may cause deterioration at joint of this product with substrate.
- (11) Since some products are constructed like an open magnetic circuit, narrow spacing between components may cause magnetic coupling.
- (12) Please do not give the product any excessive mechanical shocks in transportation.
- (13) Please do not touch wires by sharp terminals such as tweezers to avoid causing any damage to wires.
- (14) Please do not add any shock and power to the soldered product to avoid causing any damage to chip body.
- (15) Please do not touch the electrodes by naked hand as the solderability of the external electrodes may deteriorate by grease or oil on the skin.

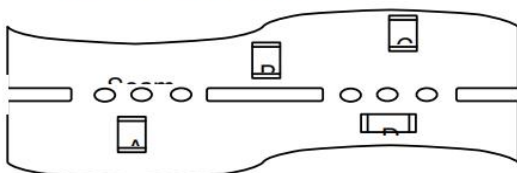
●PCB Bending Design

The following shall be considered when designing and laying out PCB's.

- (1) PCB shall be designed so that products are not subjected to the mechanical stress from board warp or deflection.



- (2) Products location on PCB separation.



Product shall be located carefully because they may be subjected to the mechanical stress in order of $A > C = B > D$.

- (3) When splitting the PCB board, or insert (remove) connector, or fasten thread after mounting components, care is required so as not to give any stress of deflection or twisting to the board. Because mechanical force may cause deterioration of the bonding strength of electrode and solder, even crack of product body. Board separation should not be done manually, but by using appropriate device

●Recommended PCB Design for SMT Land-Pattens

When chips are mounted on a PCB, the amount of solder used (size of fillet) can directly affect chip performance. Therefore, the following items must be carefully considered in the design of solder land patterns:

- (1) The amount of solder applied can affect the ability of chips to withstand mechanical stresses which may lead to breaking or cracking.
Therefore, when designing land-patterns it is necessary to consider the appropriate size and configuration of the solder pads which in turn determines the amount of solder necessary to form the fillets.
- (2) When more than one part is jointly soldered onto the same land or pad, the pad must be designed that each component's soldering Point is separated by solder-resist
Recommended land dimensions please refer to product specification.