

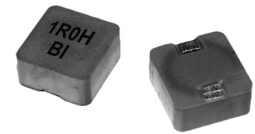
## Electrical / Environmental

- Operating Temperature Range -40°C to +155°C
- Temperature Rise, Maximum 50°C
- Operating Frequency Up to 3MHz



# HM72A

High Power High Performance Molded Surface Mount Inductors



## Specifications @ 25°C

Part Number	Inductance, Lo @ 100 kHz, 0Adc (µH)			Heating Current <sup>(1)</sup> (Adc)	I <sub>sat</sub> <sup>(2)</sup> (Adc)	DC Resistance (mΩ)		Height C (mm)	Figure
	Min.	Typ.	Max.			Typ.	Max.		
HM72A-06R10LF	0.08	0.10	0.12	26.2	60	1.50	1.70	3.0	1
HM72A-06R15LF	0.12	0.15	0.18	23.3	52	1.90	2.50	3.0	1
HM72A-06R20LF	0.16	0.20	0.24	21.2	41	2.30	3.00	3.0	1
HM72A-06R22LF	0.18	0.22	0.26	20.3	40	2.50	2.80	3.0	1
HM72A-06R33LF	0.26	0.33	0.40	18.0	30	3.20	3.90	3.0	1
HM72A-06R47LF	0.38	0.47	0.56	16.1	26	4.00	4.20	3.0	1
HM72A-06R68LF	0.54	0.68	0.82	14.4	25	5.00	5.50	3.0	1
HM72A-06R82LF	0.66	0.82	0.98	12.0	24	7.20	8.00	3.0	1
HM72A-061R0LF	0.80	1.00	1.20	10.3	22	9.00	10.00	3.0	1
HM72A-061R5LF	1.20	1.50	1.80	8.4	18	14.50	15.00	3.0	1
HM72A-062R2LF	1.76	2.20	2.64	8.3	14	15.00	20.00	3.0	1
HM72A-063R3LF	2.64	3.30	3.96	6.6	13.5	26.50	28.00	3.0	1
HM72A-064R7LF	3.76	4.70	5.64	5.4	10	35.00	40.00	3.0	1
HM72A-066R8LF	5.44	6.80	8.16	4.1	8	62.00	68.00	3.0	1
HM72A-06100LF	8.00	10.00	12.00	3.2	7	100.00	105.00	3.0	1
HM72A-06220LF	17.6	22.0	26.4	2.2	4.5	219.00	241.00	3.0	1
HM72A-06330LF	26.4	33.0	39.6	1.8	3.5	302.00	332.00	3.0	1
HM72A-10R15LF	0.12	0.15	0.18	33.0	44	0.75	0.82	4.0	2
HM72A-10R19LF	0.15	0.19	0.23	33.7	72	0.70	0.80	4.0	2
HM72A-10R24LF	0.19	0.24	0.29	31.6	70	0.80	0.90	4.0	2
HM72A-10R36LF	0.29	0.36	0.43	27.5	60	1.30	1.40	4.0	2
HM72A-10R47LF	0.38	0.47	0.56	24.8	52	1.30	1.40	4.0	2
HM72A-10R56LF	0.45	0.56	0.67	21.6	49	1.70	1.80	4.0	2
HM72A-101R0LF	0.80	1.00	1.20	18.0	21	2.56	2.75	4.0	2
HM72A-101R5LF	1.20	1.50	1.80	12.0	27.5	5.50	5.80	4.0	2
HM72A-101R8LF	1.44	1.80	2.16	13.0	15	4.50	5.00	4.0	2
HM72A-103R3LF	2.64	3.30	3.96	8.0	18.6	12.50	13.75	4.0	2
HM72A-104R7LF	3.76	4.70	5.64	7.3	17	15.00	16.50	4.0	2
HM72A-12R10LLF	0.08	0.10	0.12	40.0	84	0.80	0.96	3.5	2
HM72A-12R47LLF	0.38	0.47	0.56	31.0	55	1.30	1.43	3.5	2
HM72A-12R68LLF	0.54	0.68	0.82	27.0	49	2.30	2.50	3.5	2
HM72A-12R82LLF	0.66	0.82	0.98	22.0	44	2.40	3.00	3.5	2
HM72A-121R0LLF	0.80	1.00	1.20	19.0	42	3.40	3.60	3.5	3
HM72A-121R5LLF	1.20	1.50	1.80	16.0	35	5.10	5.50	3.5	3
HM72A-122R2LLF	1.76	2.20	2.64	13.3	29	7.20	8.00	3.5	3
HM72A-123R3LLF	2.64	3.30	3.96	10.8	27	11.00	12.00	3.5	3
HM72A-124R7LLF	3.76	4.70	5.64	10.0	24	14.00	15.00	3.5	3
HM72A-125R6LLF	4.48	5.60	6.72	8.0	19	22.50	24.75	3.5	2
HM72A-126R8LLF	5.44	6.80	8.16	8.0	18	19.80	22.00	3.5	3
HM72A-12R47LF	0.38	0.47	0.56	40.5	65	1.10	1.30	5.0	2
HMA72-12R50LF	0.40	0.50	0.60	39.0	65	1.30	1.50	5.0	2
HMA72-12R56LF	0.45	0.56	0.67	34.0	55	1.30	1.50	5.0	2
HM72A-121R0LF	0.80	1.00	1.20	26.0	50	2.20	2.50	5.0	2
HM72A-121R5LF	1.20	1.50	1.80	20.0	48	3.60	4.10	5.0	2

## Specifications @ 25°C (Cont'd)

Part Number	Inductance, L <sub>o</sub> @ 100 kHz, 0Adc ( $\mu$ H)			Heating Current <sup>(1)</sup> (Adc)	I <sub>sat</sub> <sup>(2)</sup> (Adc)	DC Resistance (m $\Omega$ )		Height C (mm)	Figure
	Min.	Typ.	Max.			Typ.	Max.		
HM72A-122R2LF	1.76	2.20	2.64	17.0	32	5.00	5.50	5.0	2
HM72A-123R3LF	2.64	3.30	3.96	15.0	32	7.70	9.20	5.0	3
HM72A-124R7LF <sup>(3)</sup>	3.76	4.70	5.64	10.7	27 <sup>(3)</sup>	12.80	15.00	5.0	3
HM72A-12100LF	8.00	10.00	12.00	8.3	16	21.40	25.50	5.0	3
HM72A-12R15HLF	0.12	0.15	0.18	56.0	118	0.53	0.60	6.5	2
HM72A-12R33HLF	0.26	0.33	0.40	44.8	65	0.83	0.90	6.5	2
HM72A-12R40HLF	0.32	0.40	0.48	43.0	64	0.90	1.00	6.5	2
HM72A-12R47HLF	0.38	0.47	0.56	40.8	63	1.00	1.20	6.5	2
HM72A-12R68HLF	0.54	0.68	0.82	34.5	60	1.40	1.60	6.5	2
HM72A-121R0HLF	0.80	1.00	1.20	31.0	49	1.70	2.00	6.5	2
HM72A-121R5HLF	1.20	1.50	1.80	25.8	45	2.50	3.00	6.5	2
HM72A-122R2HLF	1.76	2.20	2.64	22.0	40	3.50	3.85	6.5	2
HM72A-123R3HLF	2.64	3.30	3.96	19.0	35	5.50	6.80	6.5	3
HM72A-124R7HLF <sup>(3)</sup>	3.76	4.70	5.64	15.0	30 <sup>(3)</sup>	7.20	7.92	6.5	3
HM72A-126R8HLF	5.44	6.80	8.12	11.3	16.5	13.10	14.00	6.5	3
HM72A-12100HLF <sup>(3)</sup>	8.00	10.00	12.00	9.9	15.5 <sup>(3)</sup>	18.00	19.20	6.5	2
HM72A-12200HLF	16.00	20.00	24.00	6.7	13.0	37.00	40.50	6.5	2

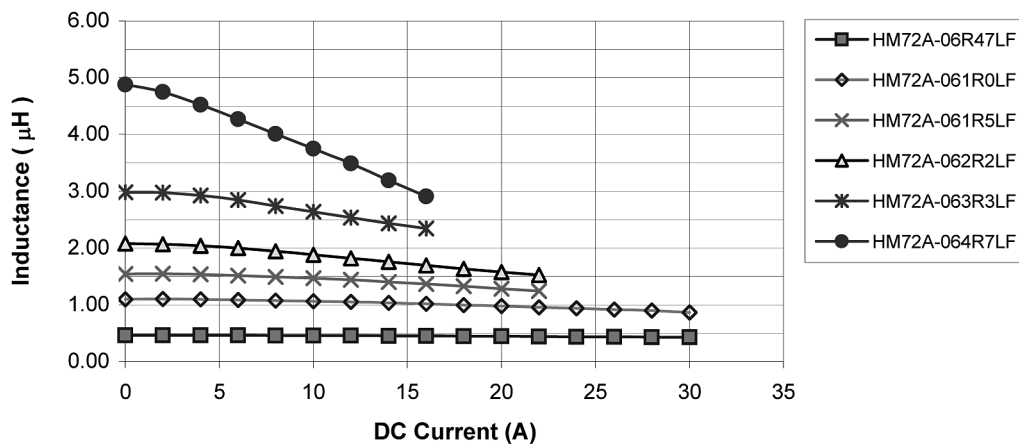
Notes : (1) The heating current is the DC current which causes the component temperature to increase by approximately 50°C. This current is determined by soldering the component on a typical application PCB, and then applying the current to the device for 30 minutes.

(2) The saturation current (I<sub>sat</sub>) is the approximate current at which the inductance will be decreased by 20% typical from its initial (zero DC) value.

(3) The saturation current (I<sub>sat</sub>) of HM72A-124R7LF, HM72A-124R7HLF and HM72A-12100HLF is the approximate current at which the inductance will be decreased by 30% typical from its initial (zero DC) value.

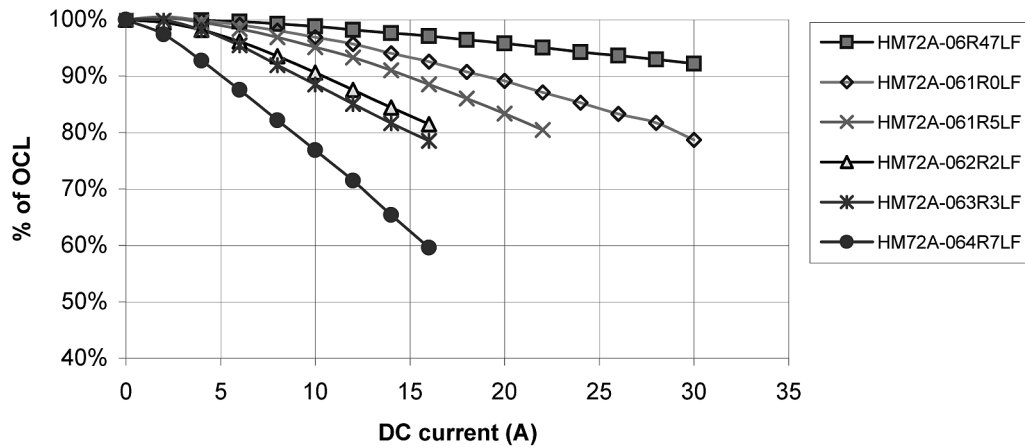
## Electrical Characteristics @ 25°C

Inductance vs. Current Characteristics



## Electrical Characteristics @ 25°C (Cont'd)

Inductance Rolloff vs. Current Characteristics

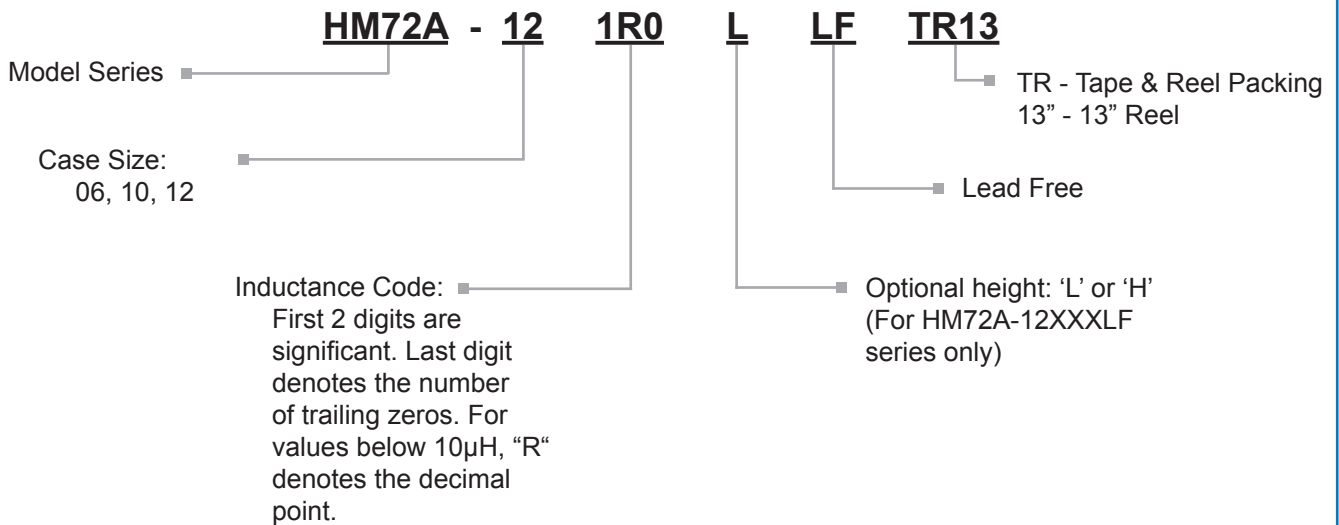


## Packaging

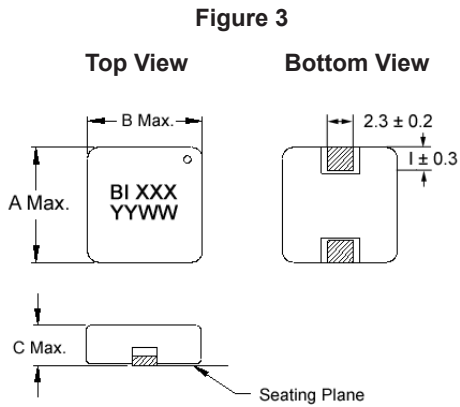
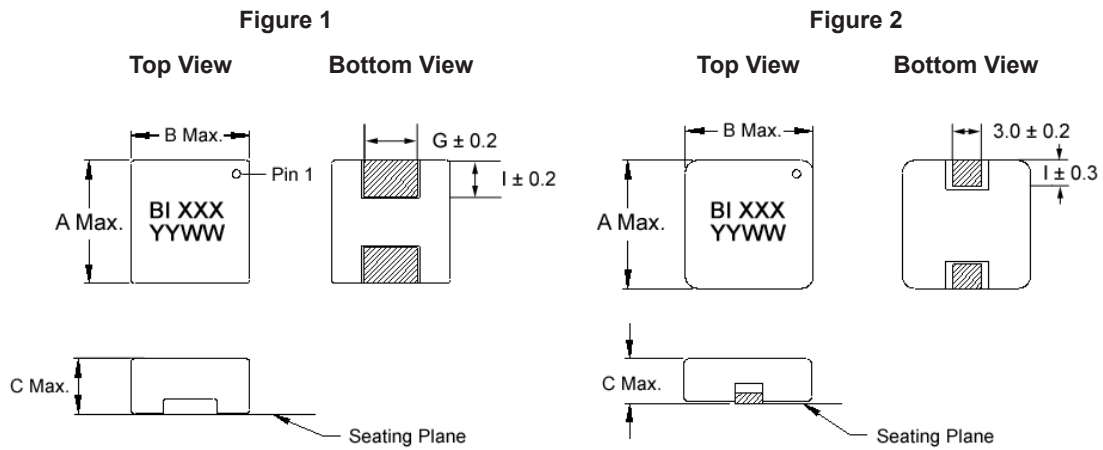
**Standard:** Embossed Tape and Reel

Reel: Diameter:	=	13" (330.2mm)
Capacity: 06XXX	=	1,000 Units
10XXX	=	500 Units
12XXXL	=	500 Units
12XXX/ 12XXXH	=	400 Units

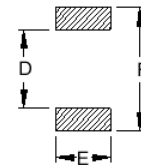
## Ordering Information



## Outline Dimensions (mm)



### Recommended Land Pattern



Case Size	Fig.	A	B	D	E	F	G	I
06	1	7.23	6.8	2.0	3.3	7.4	3.0	2.0
10	2	11.5	10.5	4.9	3.3	11.5	-	2.5
12	2	13.5	13.0	6.9	3.3	13.5	-	2.5
	3	13.5	13.0	6.9	3.3	13.5	-	2.5

Note: Refer to Specifications table for 'C' dimension of each model.