

New

**RoHS
Compliant**

High power low cost molded SMD Inductor

- Operating Temperature Range -40°C to +155°C
- Storage Temperature Range -40°C to +155°C
- Temperature Rise, Maximum 50°C

Specifications @25°C

Part Number	Inductance, Lo (μH) @100KHz, 0Adc			Bias Ind. (μH) @ I _{sat}		I _{sat} ⁽¹⁾ (Adc)	Heating Current ⁽²⁾ (Adc)	DCR ⁽³⁾ (mΩ) Max.		Height C (mm)	Figure
	Min.	Typ.	Max.	Min.	Typ.			Typ.	Max.		
HM72A-06R20	0.16	0.20	0.24	0.12	0.15	70.0	21.2	2.3	3.0	3.0	1
HM72A-06R33	0.26	0.33	0.40	0.20	0.25	40.0	18.0	3.2	3.9	3.0	1
HM72A-06R47	0.38	0.47	0.56	0.30	0.37	38.0	16.1	4.0	4.2	3.0	1
HM72A-06R68	0.54	0.68	0.82	0.44	0.52	32.0	14.4	5.0	5.5	3.0	1
HM72A-06R82	0.66	0.82	0.98	0.53	0.66	30.0	12.0	7.20	8.00	3.0	1
HM72A-061R0	0.80	1.00	1.20	0.68	0.80	26.0	10.3	9.0	10.0	3.0	1
HM72A-061R5	1.20	1.50	1.80	1.02	1.10	18.0	8.4	14.5	15.0	3.0	1
HM72A-062R2	1.76	2.20	2.64	1.52	1.69	20.0	8.3	15.0	20.0	3.0	1
HM72A-063R3	2.64	3.30	3.96	2.14	2.38	15.0	5.9	30.0	33.0	3.0	1
HM72A-064R7	3.76	4.70	5.64	3.04	3.80	12.0	5.4	35.0	40.0	3.0	1
HM72A-066R8	5.44	6.80	8.16	4.28	4.75	8.0	5.2	38.0	46.0	3.0	1
HM72A-06100	8.0	10.0	12.0	7.38	8.20	7.5	3.2	100	105	3.0	1
HM72A-06220	17.6	22.0	26.4	15.2	19.0	2.0	2.2	219	241	3.0	1
HM72A-06330	26.4	33.0	39.6	20.0	25.0	2.0	1.8	302	332	3.0	1
HM72A-10R10L	0.08	0.10	0.12	0.06	0.07	29.0	35.0	0.55	0.63	2.5	2
HM72A-10R15	0.12	0.15	0.18	0.11	0.12	80.0	33.0	0.75	0.82	4.0	2
HM72A-10R24	0.19	0.24	0.29	0.20	0.22	44.0	35.0	0.65	0.72	4.0	2
HM72A-10R36	.288	.360	0.432	0.250	.288	48.0	32	0.85	0.95	4.0	2
HM72A-10R47	0.38	0.47	0.56	0.34	0.38	40.0	27.0	1.10	1.20	4.0	2
HM72A-10R56	0.448	0.560	0.672	0.390	0.448	48.0	29.0	1.21	1.34	4.0	2
HM72A-101R0	0.80	1.00	1.20	0.76	0.84	33.0	18.0	3.0	3.3	4.0	2
HM72A-101R5	1.20	1.50	1.80	1.09	1.21	27.0	13.0	4.5	5.0	4.0	2
HM72A-101R8	1.44	1.80	2.16	1.28	1.44	16.0	13.0	4.5	5.0	4.0	2
HM72A-103R3	2.64	3.30	3.96	2.25	2.50	18.0	8.0	11.0	12.1	4.0	2
HM72A-104R7	3.76	4.70	5.64	3.15	3.50	16.0	8.0	13.8	15.20	4.0	2
HM72A-12R47L	0.38	0.47	0.56	0.32	0.36	60.0	31.0	1.30	1.43	3.5	2
HM72A-12R68L	0.54	0.68	0.82	0.47	0.52	50.0	27.0	1.80	2.00	3.5	2
HM72A-12R82L	0.66	0.82	0.98	0.52	0.58	42.0	23.0	2.40	3.00	3.5	2
HM72A-121R0L	0.80	1.00	1.20	0.70	0.80	42.0	21.0	3.4	3.6	3.5	2

HM72A-124R7L	3.76	4.70	5.64	0.34	0.38	18.0	8.0	18.5	20.3	3.5	2
HM72A-125R6L	4.48	5.60	6.72	4.05	4.50	17.0	8.0	22.5	24.75	3.5	2
HM72A-12R50	0.40	0.50	0.60	0.30	0.38	39.0	35.0	0.97	1.02	5.0	2
HM72A-12R56	0.45	0.56	0.67	0.42	0.47	55.0	34.0	1.30	1.50	5.0	2
HM72A-122R2	1.76	2.20	2.64	1.68	1.87	34.0	17.0	5.00	5.50	5.0	2
HM72A-121R0H	0.80	1.00	1.20	0.72	0.80	55.0	31.0	1.70	2.00	6.5	2
HM72A-122R2H	1.76	2.20	2.64	1.56	1.74	36.0	22.0	3.50	3.85	6.5	2
HM72A-123R3H	2.64	3.30	3.96	2.30	2.55	26.0	19.0	4.50	4.95	6.5	2
HM72A-124R7H	3.76	4.70	5.64	3.06	3.40	22.0	15.0	7.20	7.92	6.5	2

Notes:

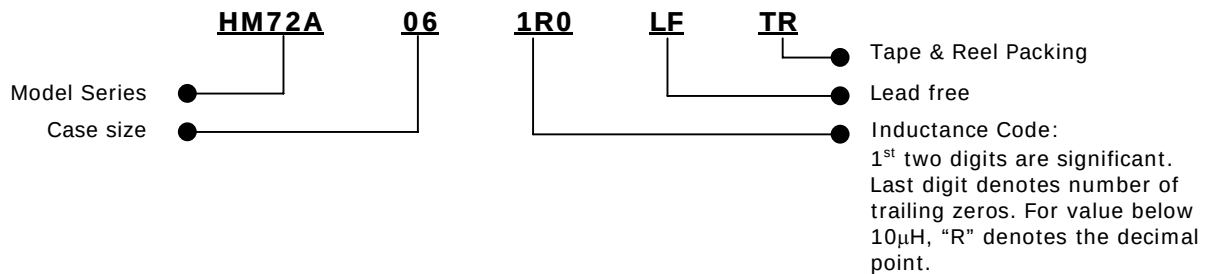
- (1) *Isat* Current is the approximate current at which inductance will be decreased by 20 % typical from its initial (zero DC) value or the current at which $\Delta T = 50^{\circ}\text{C}$, whichever is lower.
- (2) The heating current is the DC current, which causes the component temperature to increase by approximately 50°C . This current is determined by soldering the component on a typical application PCB, and then apply the current to the device for 30 minutes.
- (3) DC Resistance is measured at 25°C .

Packaging

STANDARD: Embossed Tape & Reel

Reel :	Diameter :	13" (330.2mm)
	Capacity :	06xxx 1000
		10xxxL 1000
		10xxx 500
		12xxxL 500
		12xxx/12xxxH 400

Ordering Information



Outline Dimensions (mm)

FIGURE 1

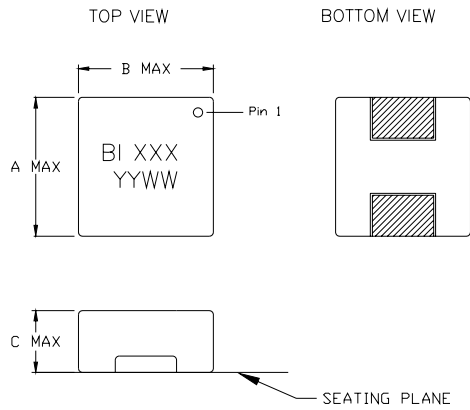
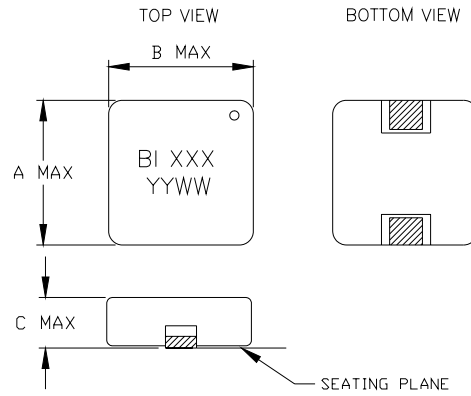
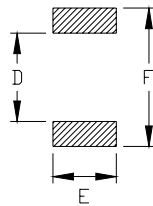


FIGURE 2

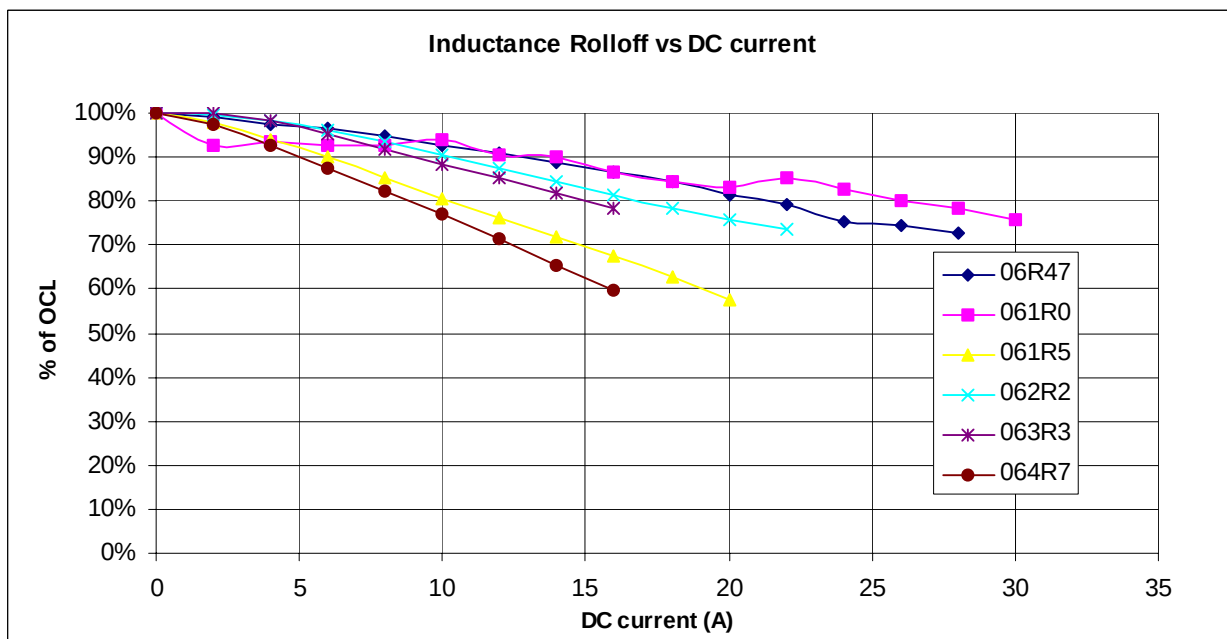
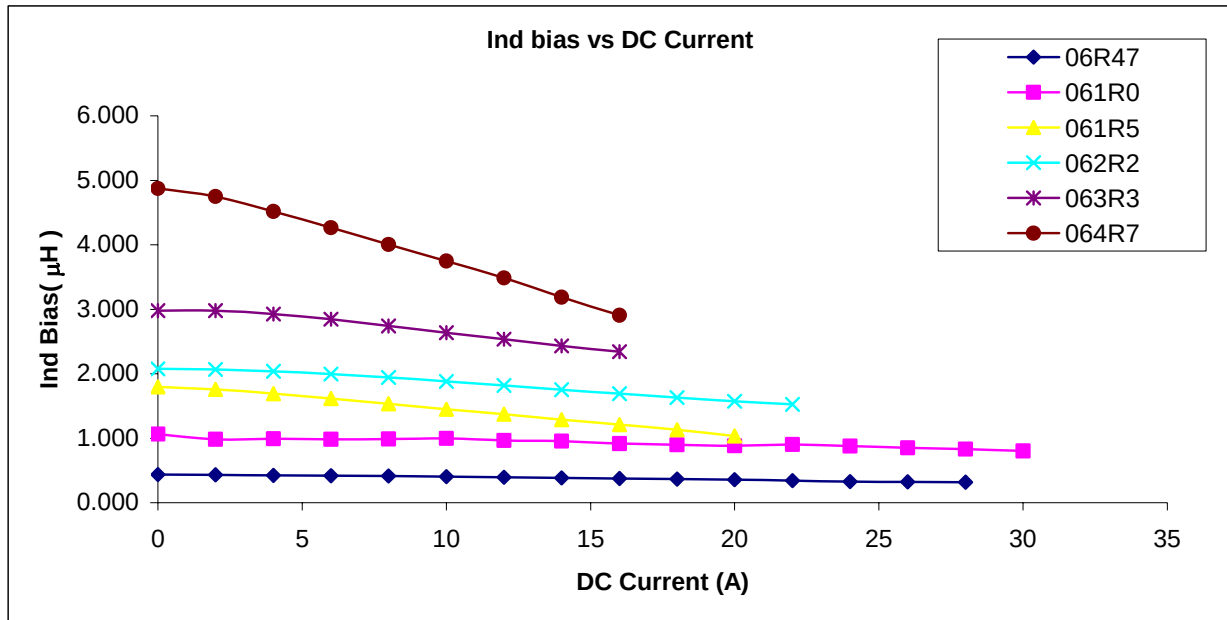


LAND PATTERN



Case Size	A (Max.)	B (Max.)	D	E	F	
06	7.23	6.8	2.0	3.3	7.4	
10	11.5	10.5	3.5	3.3	11.5	
12	13.5	13.0	5.0	3.3	13.5	

Electrical Characteristic @ 25°C



Revision	Description	Date
3.1	Revise case 06 outline dimension Was : A = 7.8mm, D=4.6mm and F=8.3mm Is : A = 7.23mm, D=2.0mm and F=7.4mm Revise L Vs I chart Revise Isat for HM72A-06R47 to 22A and HM72A-061R0 to 16A	17-Feb-06
3.2	Add model 06R20 and 06R33 Revise 063R3 DCR to 30mR typ, 33mR max Revise heating current specification. Revise case 12 part number and height. Revise 062R2 bias current to 8A	4 th -Apr-06
3.3	Add model 06220 and 06330 Delete 06R80, Add 06R82 Revise 064R7 Irated current from 6.0A to 9.0A	5 th -Apr-06
3.4	Change operating temperature from 180°C to 155°C Change Irated to Isat and updated Isat current. Add new model HM72A-06100, -10R15, -12R82L, -12R56, -121R0H	24 th -May-06
3.5	Revise Isat current 06R20, 06R33, 061R0, 062R2 and 063R3 Add new model HM72A-124R7L, -125R6L and -122R2	26 th -Jun-06
3.51	Remove 10R40, add model 10R47, 101R0 & 101R5. Revised bias current 06R33, 06R47, 06R68 & 064R7	21 st -Jul-06
3.60	Add 10R36, 101R0, 10R56, 101R8, 121R0L, change I sat for 06R20, 06R33, 06R47, 06R68 and 06R82	
3.61	Update packaging requirement for case 10 and 12 Change I sat 062R2 Revised 123R3H bias current 15A to 26A	28 th -Aug-06
3.7	Add new model 10R24, 12R47L and 12R68L 104R7, revise bias current from 6.0A to 16A, DCR to 13.8mΩ typ and 15.2mΩ Max Revise bias current & inductance 06R68 from 36A to 32A, 0.45uH to 0.52uH typ. Revise 103R3 bias current & DCR	26 th -Sep-06