SMD Power Inductor

TMHC0604LFV-Series(N)-D

1. Features

1. Shielded construction.
2. Capable of corresponding high frequency .
3. Low loss realized with low DCR.
4. High performance (Isat) realized by metal dust core.
5. Ultra low buzz noise, due to composite construction.
6. 100% Lead(Pb)-Free and RoHS compliant.
7. High reliability -Reliability test complied to AEC-Q200
8. Operating temperature -55~+155℃(Including self - temperature rise)

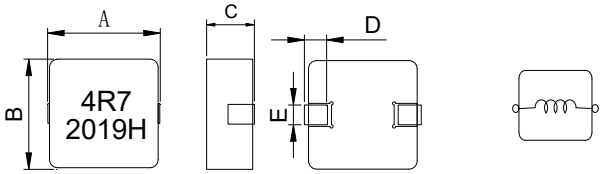
Halogen-free

RoHS

2. Applications

1. DC/DC converters in distributed power systems.
2. DC/DC converter for Field Programmable Gate Array(FPGA).
3. Battery powered devices.
4. Thin type on-board power supply module for exchanger.
5. VRM for server.
6. High current, low profile POL converters.
7. PDA/notebook/desktop/server and battery powered devices.

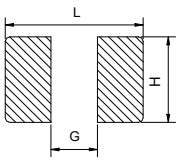
3. Dimensions



Series	A	B	C	D	E
TMHC0604LFV	See spec table	6.6±0.2	3.8±0.2	1.6±0.3	1.3±0.2

Unit:mm

Recommend PC Board Pattern



L(mm)	G(mm)	H(mm)
8.0	3.7	1.6

Note: 1. The above PCB layout reference only.
2. Recommend solder paste thickness at 0.15mm and above.

4. Part Numbering

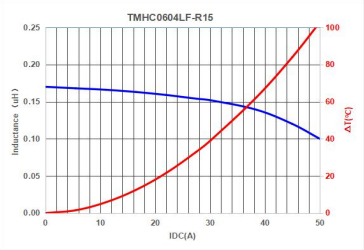
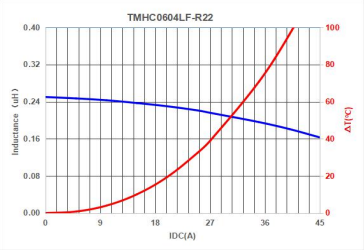
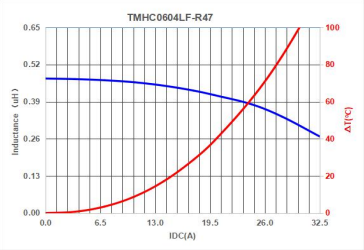
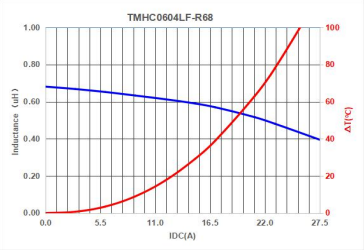
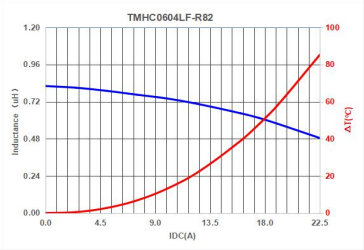
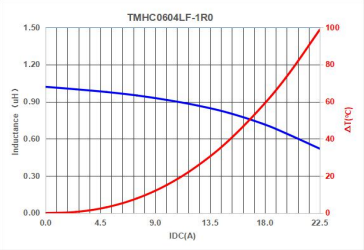
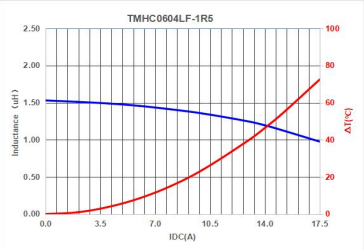
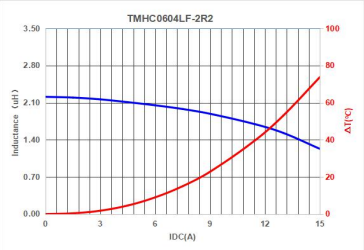
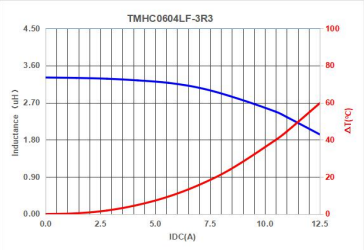
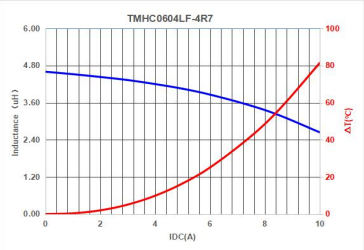
TMHC	0604	LFV	-	4R7	MN	-	D
A	B	C		D	E		F

A: Series
B: Dimension — BxC
C: Type — Standard.V: Vehicle
D: Inductance — 4R7=4.7uH
E: Inductance Tolerance — K=±10%，L=±15%，M=±20%，N=±25%，Y=±30%
F: Date Code — Marking: Black.4R7 and 2019H (20:YY,19:WW, follow production date H:P/N).

5. Specification

Part Number	Inductance L0 A(uH) ±20%	Heat Rating Current DC Irms (A)	Saturation Current DC I sat (A)	DCR (mΩ) Typ.	DCR (mΩ) Max.	Dimension "A" （mm）
TMHC0604LFV-R15YN-D	0.15±30%	30	45	1.2	1.5	7.5±0.3
TMHC0604LFV-R22MN-D	0.22	27	40	1.5	1.9	7.5±0.3
TMHC0604LFV-R47MN-D	0.47	20	28	2.8	3.3	7.5±0.3
TMHC0604LFV-R68MN-D	0.68	17	23	3.4	3.9	7.5±0.3
TMHC0604LFV-R82MN-D	0.82	16	19	4.1	4.7	7.5±0.3
TMHC0604LFV-1R0MN-D	1.00	15	18	4.6	5.3	7.5±0.3
TMHC0604LFV-1R5MN-D	1.50	13	15	6.3	7.3	7.5±0.3
TMHC0604LFV-2R2MN-D	2.20	11.5	13	9.0	10.8	7.5±0.3
TMHC0604LFV-3R3MN-D	3.30	10.5	11	13.0	15.6	7.1±0.3
TMHC0604LFV-4R7MN-D	4.70	7.5	8.5	18.0	23.0	7.1±0.3

Note:

1. Test frequency : Ls : 100KHz /1.0V.
2. All test data referenced to 25℃ ambient.
3. Testing Instrument(or equ) : L: HP4284A,CH11025,CH3302,CH1320,CH1320S LCR METER / Rdc:CH16502,Agilent33420A MICRO OHMMETER.
4. Heat Rated Current (Irms) will cause the coil temperature rise approximately △T of 40℃
5. Saturation Current (Isat) will cause L0 to drop approximately 30%.
6. The part temperature (ambient + temp rise) should not exceed 155℃under worst case operating conditions.Circuit design,component,PCB trace size and thickness,airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
7. Special inquiries besides the above common used types can be met on your requirement.

6. Typical Performance Curves