

Inductors

Shielded Power Inductor
SMT Type

CHTP - R Series

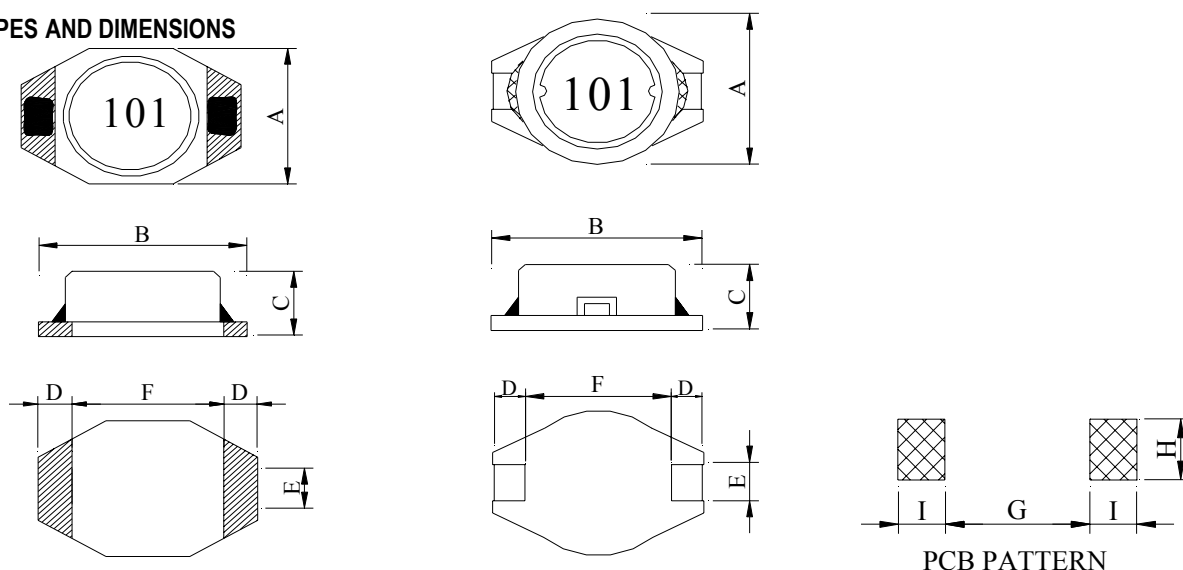
FEATURES

- Low profile and shielded very effective in space-conscious applications
- Low resistance and high energy storage

APPLICATIONS

Excellent as DC-DC Converter used in notebooks computers, PDA and mobile handphones. Step-up or step-down converters, flash memory programmers.

SHAPES AND DIMENSIONS



CHTP 1608 R

MATERIAL CONSTRUCTION

- a. Core: Ferrite DR core
- b. Core: Ferrite RI Core
- c. Wire: Enamelled copper wire
- d. Base: Ceramic
- e. Terminal: Gold plating
- f. Adhesive: Epoxy resin

CHTP 2012 R, CHTP 3308 R, CHTP 3316 R & CHTP 5022 R

MATERIAL CONSTRUCTION

- a. Core: Ferrite DR core
- b. Core: RI Core
- c. Wire: Enamelled copper wire
- d. Base: LCP E4008
- e. Terminal: Tinned Copper plate
- f. Adhesive: Epoxy resin

Series	A	B	C	D	E	F	G (Ref)	H (Ref)	I (Ref)
CHTP1608R	4.45 Max	6.60 Max	2.92 Max	1.02 ± 0.2	1.27 ± 0.2	4.32 ± 0.3	4.06	3.56	1.40
CHTP2012R	8.00 ± 0.2	10.50 ± 0.2	5.00 ± 0.3	2.10 ± 0.2	2.00 ± 0.2	6.00 ± 0.3	5.70	2.20	2.40
CHTP3308R	10.0 ± 0.2	12.7 ± 0.2	3.00 ± 0.3	2.40 ± 0.2	2.20 ± 0.2	7.60 ± 0.3	7.30	2.80	3.00
CHTP3316R	10.0 ± 0.2	12.70 ± 0.2	5.00 ± 0.3	2.40 ± 0.2	2.20 ± 0.2	7.60 ± 0.3	7.30	2.80	3.00
CHTP5022R	15.0 ± 0.3	18.40 ± 0.3	7.00 ± 0.5	2.40 ± 0.2	2.20 ± 0.2	13.30 ± 0.3	12.70	2.80	3.00

Dimension in m/m

GENERAL SPECIFICATIONS

- I_{rms} : Based on temperature rise
- I_{sat} : Based on $\Delta L / L_0A$
- Operating Temperature: -40°C ~ +125°C
- Storage Temperature: -25°C ~ +125°C
- Resistance to solder heat: 260°C for 10 seconds

TAPE AND REEL PACKAGING

Type	Pieces per reel	Plastic Reel Size
CHTP1608R	2,500	13"
CHTP2012R	1,000	13"
CHTP3308R	1,000	13"
CHTP3316R	500	13"
CHTP5022R	250	13"

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ELECTRICAL SPECIFICATIONS

Part Number	Inductance (μH)	Testing Freq (Hz)	SRF (MHz) Typ.	DCR (Ω) Max	I _{rms} (A)
CHTP1608R-1R0M	1.0 ± 20%	0.1 V / 100K	250	0.040	3.0
CHTP1608R-1R5M	1.5 ± 20%	0.1 V / 100K	125	0.045	2.3
CHTP1608R-2R2M	2.2 ± 20%	0.1 V / 100K	120	0.050	1.8
CHTP1608R-3R3M	3.3 ± 20%	0.1 V / 100K	120	0.055	1.6
CHTP1608R-4R7M	4.7 ± 20%	0.1 V / 100K	105	0.060	1.4
CHTP1608R-6R8M	6.8 ± 20%	0.1 V / 100K	50	0.065	1.2
CHTP1608R-100M	10 ± 20%	0.1 V / 100K	38	0.075	1.0
CHTP1608R-150M	15 ± 20%	0.1 V / 100K	33	0.090	0.80
CHTP1608R-220M	22 ± 20%	0.1 V / 100K	25	0.110	0.70
CHTP1608R-330M	33 ± 20%	0.1 V / 100K	20	0.190	0.60
CHTP1608R-470M	47 ± 20%	0.1 V / 100K	20	0.230	0.50
CHTP1608R-680M	68 ± 20%	0.1 V / 100K	15	0.290	0.40
CHTP1608R-101M	100 ± 20%	0.1 V / 100K	10	0.480	0.30
CHTP1608R-151M	150 ± 20%	0.1 V / 100K	9	0.590	0.26
CHTP1608R-221M	220 ± 20%	0.1 V / 100K	6	0.770	0.22
CHTP1608R-331M	330 ± 20%	0.1 V / 100K	5	1.400	0.20
CHTP1608R-471M	470 ± 20%	0.1 V / 100K	4	1.800	0.19
CHTP1608R-681M	680 ± 20%	0.1 V / 100K	3	2.200	0.16
CHTP1608R-102M	1000 ± 20%	0.1 V / 100K	2	3.400	0.15
CHTP1608R-152M	1500 ± 20%	0.1 V / 100K	2	4.200	0.12
CHTP1608R-222M	2200 ± 20%	0.1 V / 100K	2	8.500	0.10
CHTP1608R-332M	3300 ± 20%	0.1 V / 100K	1	11.00	0.08
CHTP1608R-472M	4700 ± 20%	0.1 V / 100K	1	13.90	0.06
CHTP1608R-682M	6800 ± 20%	0.1 V / 100K	1	25.00	0.04
CHTP1608R-103M	10000 ± 20%	0.1 V / 100K	0.8	32.80	0.02

Other non standard inductance value are available to meet your exact requirements

Note:

1. Inductance measured by LCR Meter HP 4294/ HP4291
2. DCR measured by Milliohm meter CH 502AC
3. SRF measured by Network analyzer HP 4294/ HP4291
4. SRF is for reference only
5. ΔTemperature = 30 °C Typical at I_{rms}

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CHTP 2012 R Series

ELECTRICAL SPECIFICATIONS

Part Number	Inductance (μH)	Testing Freq (Hz)	SRF (MHz) Typ.	DCR (Ω) Max	I _{rms} (A)	I _{sat} (A)
CHTP2012R-2R2M	2.2 ± 20%	0.1 V / 100K	75.0	0.040	2.50	6.00
CHTP2012R-3R9M	3.9 ± 20%	0.1 V / 100K	50.0	0.055	2.10	4.50
CHTP2012R-5R6M	5.6 ± 20%	0.1 V / 100K	40.0	0.065	1.95	4.00
CHTP2012R-8R2M	8.2 ± 20%	0.1 V / 100K	32.0	0.080	1.75	3.00
CHTP2012R-100M	10 ± 20%	0.1 V / 100K	28.0	0.100	1.50	2.50
CHTP2012R-120M	12 ± 20%	0.1 V / 100K	24.0	0.120	1.40	2.00
CHTP2012R-150M	15 ± 20%	0.1 V / 100K	22.0	0.140	1.30	1.80
CHTP2012R-180L	18 ± 15%	0.1 V / 100K	19.0	0.160	1.20	1.60
CHTP2012R-220L	22 ± 15%	0.1 V / 100K	17.0	0.180	1.10	1.50
CHTP2012R-270L	27 ± 15%	0.1 V / 100K	15.5	0.200	1.00	1.40
CHTP2012R-330L	33 ± 15%	0.1 V / 100K	13.5	0.240	0.92	1.30
CHTP2012R-390L	39 ± 15%	0.1 V / 100K	12.0	0.260	0.84	1.00
CHTP2012R-470L	47 ± 15%	0.1 V / 100K	10.5	0.280	0.75	0.90
CHTP2012R-560K	56 ± 10%	0.1 V / 100K	9.50	0.380	0.68	0.80
CHTP2012R-680K	68 ± 10%	0.1 V / 100K	9.0	0.440	0.60	0.70
CHTP2012R-820K	82 ± 10%	0.1 V / 100K	8.5	0.550	0.54	0.60
CHTP2012R-101K	100 ± 10%	0.1 V / 100K	7.5	0.600	0.50	0.50
CHTP2012R-121K	120 ± 10%	0.1 V / 100K	7.0	0.750	0.45	0.45
CHTP2012R-151K	150 ± 10%	0.1 V / 100K	6.5	0.900	0.40	0.40
CHTP2012R-181K	180 ± 10%	0.1 V / 100K	4.8	1.050	0.35	0.37
CHTP2012R-221K	220 ± 10%	0.1 V / 100K	4.5	1.180	0.30	0.35
CHTP2012R-271K	270 ± 10%	0.1 V / 100K	4.2	1.400	0.27	0.32
CHTP2012R-331K	330 ± 10%	0.1 V / 100K	3.8	1.800	0.24	0.30
CHTP2012R-391K	390 ± 10%	0.1 V / 100K	3.6	2.100	0.22	0.28
CHTP2012R-471K	470 ± 10%	0.1 V / 100K	3.5	2.250	0.20	0.26
CHTP2012R-561K	560 ± 20%	0.1 V / 100K	3.0	3.000	0.18	0.25
CHTP2012R-681K	680 ± 20%	0.1 V / 100K	2.8	3.400	0.17	0.23
CHTP2012R-821K	820 ± 20%	0.1 V / 100K	2.5	4.000	0.16	0.22
CHTP2012R-102K	1000 ± 20%	0.1 V / 100K	2.2	5.000	0.15	0.20

Other non standard inductance value are available to meet your exact requirements

Note:

1. Inductance measured by LCR Meter HP 4294/ HP4291
 2. DCR measured by Milliohm meter CH 502AC
 3. SRF measured by Network analyzer HP 4294/ HP4291
 4. SRF is for reference only
 5. ΔTemperature = 40 °C Max at I_{rms}
 6. ΔL / L0A = 10% Typical at I_{sat}
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CHTP 3308 R Series

ELECTRICAL SPECIFICATIONS

Part Number	Inductance (μH)	Testing Freq (Hz)	SRF (MHz) Typ.	DCR (Ω) Max	I _{rms} (A)	I _{sat} (A)
CHTP3308R-2R2M	2.2 ± 20%	0.1 V / 100K	90.0	0.045	3.50	4.20
CHTP3308R-3R0M	3.0 ± 20%	0.1 V / 100K	70.0	0.062	3.00	3.60
CHTP3308R-3R9M	3.0 ± 20%	0.1 V / 100K	60.0	0.070	2.80	3.40
CHTP3308R-4R7M	4.7 ± 20%	0.1 V / 100K	50.0	0.078	2.50	3.00
CHTP3308R-6R8M	6.8 ± 20%	0.1 V / 100K	50.0	0.100	2.20	2.60
CHTP3308R-100M	10 ± 20%	0.1 V / 100K	38.0	0.145	2.00	2.20
CHTP3308R-120M	12 ± 20%	0.1 V / 100K	29.0	0.185	1.75	2.00
CHTP3308R-150M	15 ± 20%	0.1 V / 100K	30.0	0.200	1.50	1.80
CHTP3308R-180M	18 ± 20%	0.1 V / 100K	25.0	0.270	1.40	1.60
CHTP3308R-220M	22 ± 20%	0.1 V / 100K	22.0	0.300	1.30	1.50
CHTP3308R-270M	27 ± 20%	0.1 V / 100K	18.0	0.400	1.20	1.30
CHTP3308R-330M	33 ± 20%	0.1 V / 100K	17.0	0.450	1.10	1.20
CHTP3308R-390M	39 ± 20%	0.1 V / 100K	17.0	0.560	0.95	1.10
CHTP3308R-470M	47 ± 20%	0.1 V / 100K	15.0	0.650	0.80	1.05
CHTP3308R-560M	56 ± 20%	0.1 V / 100K	14.0	0.680	0.75	1.00
CHTP3308R-680M	68 ± 20%	0.1 V / 100K	12.0	0.800	0.70	0.90
CHTP3308R-820M	82. ± 20%	0.1 V / 100K	11.0	1.200	0.65	0.85
CHTP3308R-101M	100 ± 20%	0.1 V / 100K	9.5	1.400	0.60	0.80
CHTP3308R-121M	120 ± 20%	0.1 V / 100K	8.5	1.520	0.55	0.70
CHTP3308R-151M	150 ± 20%	0.1 V / 100K	8.0	1.800	0.50	0.65
CHTP3308R-181M	180 ± 20%	0.1 V / 100K	7.0	2.200	0.45	0.60
CHTP3308R-221M	220 ± 20%	0.1 V / 100K	6.5	2.200	0.40	0.50
CHTP3308R-271L	270 ± 15%	0.1 V / 100K	5.5	3.100	0.35	0.45
CHTP3308R-331L	330 ± 15%	0.1 V / 100K	5.2	3.600	0.30	0.40
CHTP3308R-391L	390 ± 15%	0.1 V / 100K	5.0	4.600	0.25	0.35
CHTP3308R-471L	470 ± 15%	0.1 V / 100K	4.5	5.100	0.20	0.30

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Note:

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 2. DCR measured by Milliohm meter CH 502AC
 3. SRF measured by Network analyzer HP 4294/ HP4291
 4. SRF is for reference only.
 5. ΔTemperature = 40 °C Max at I_{rms}
 6. ΔL / LOA = 10% Typical at I_{sat}
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Part Number	Inductance (μH)	Testing Freq (Hz)	SRF (MHz) Typ.	DCR (Ω) Max	I _{rms} (A)	I _{sat} (A)
CHTP3316R-1R0M	1.0 ± 20%	0.1 V / 100K	130.0	0.021	5.00	5.60
CHTP3316R-1R5M	1.5 ± 20%	0.1 V / 100K	110.0	0.022	4.50	5.20
CHTP3316R-2R2M	2.2 ± 20%	0.1 V / 100K	90.0	0.027	3.10	5.00
CHTP3316R-3R0M	3.0 ± 20%	0.1 V / 100K	65.0	0.030	2.90	3.90
CHTP3316R-4R7M	4.7 ± 20%	0.1 V / 100K	50.0	0.040	2.50	3.20
CHTP3316R-6R8M	6.8 ± 20%	0.1 V / 100K	30.0	0.055	2.20	2.80
CHTP3316R-100M	10 ± 22%	0.1 V / 100K	28.0	0.065	2.00	2.40
CHTP3316R-120M	12 ± 22%	0.1 V / 100K	25.0	0.080	1.80	2.20
CHTP3316R-150M	15 ± 22%	0.1 V / 100K	20.0	0.085	1.70	2.00
CHTP3316R-180L	18 ± 15%	0.1 V / 100K	19.0	0.090	1.60	1.80
CHTP3316R-220L	22 ± 15%	0.1 V / 100K	18.0	0.100	1.40	1.60
CHTP3316R-270L	27 ± 15%	0.1 V / 100K	16.0	0.120	1.30	1.50
CHTP3316R-330L	33 ± 15%	0.1 V / 100K	14.0	0.160	1.20	1.40
CHTP3316R-390L	39 ± 15%	0.1 V / 100K	12.0	0.180	1.05	1.20
CHTP3316R-470L	47 ± 15%	0.1 V / 100K	11.0	0.190	1.00	1.00
CHTP3316R-560L	56 ± 15%	0.1 V / 100K	10.0	0.210	0.90	0.95
CHTP3316R-680L	68 ± 15%	0.1 V / 100K	9.0	0.340	0.82	0.90
CHTP3316R-820L	82 ± 15%	0.1 V / 100K	8.0	0.380	0.75	0.85
CHTP3316R-101K	100 ± 10%	0.1 V / 100K	7.5	0.420	0.68	0.80
CHTP3316R-121K	120 ± 10%	0.1 V / 100K	7.0	0.460	0.60	0.70
CHTP3316R-151K	150 ± 10%	0.1 V / 100K	6.3	0.520	0.55	0.60
CHTP3316R-181K	180 ± 10%	0.1 V / 100K	5.5	0.700	0.50	0.65
CHTP3316R-221K	220 ± 10%	0.1 V / 100K	5.0	0.800	0.45	0.50
CHTP3316R-221K	270 ± 10%	0.1 V / 100K	4.5	1.100	0.40	0.45
CHTP3316R-331K	330 ± 10%	0.1 V / 100K	4.0	1.200	0.35	0.40
CHTP3316R-391K	390 ± 10%	0.1 V / 100K	3.3	1.400	0.33	0.35

Other non standard inductance value are available to meet your exact requirements

Note:

1. Inductance measured by LCR Meter HP 4294/ HP4291
2. DCR measured by Milliohm meter CH 502AC
3. SRF measured by Network analyzer HP 4294/ HP4291
4. SRF is for reference only.
5. ΔTemperature = 40 °C Max at I_{rms}
6. ΔL / L0A = 10% Typical at I_{sat}

Inductors

Shielded Power Inductor
SMT Type

CHTP 5022 R Series

ELECTRICAL SPECIFICATIONS

Part Number	Inductance (μH)	Testing Freq (Hz)	SRF (MHz) Typ.	DCR (Ω) Max	I _{rms} (A)	I _{sat} (A)
CHTP5022R-100M	10 ± 20%	0.1 V / 100K	20.0	0.030	4.00	7.00
CHTP5022R-150M	15 ± 20%	0.1 V / 100K	17.0	0.035	3.60	6.20
CHTP5022R-220M	22 ± 20%	0.1 V / 100K	15.0	0.045	3.15	5.00
CHTP5022R-330M	33 ± 20%	0.1 V / 100K	10.0	0.060	2.80	4.20
CHTP5022R-470M	47 ± 20%	0.1 V / 100K	8.5	0.080	2.45	3.50
CHTP5022R-680M	68 ± 20%	0.1 V / 100K	6.5	0.115	2.00	3.00
CHTP5022R-101M	100 ± 20%	0.1 V / 100K	5.5	0.180	1.70	2.40
CHTP5022R-151M	150 ± 20%	0.1 V / 100K	5.0	0.220	1.35	2.00
CHTP5022R-221M	220 ± +0%	0.1 V / 100K	4.0	0.320	1.15	1.60
CHTP5022R-331M	330 ± 20%	0.1 V / 100K	3.0	0.500	0.90	1.30
CHTP5022R-471M	470 ± 20%	0.1 V / 100K	2.5	0.750	0.75	1.10
CHTP5022R-681M	680 ± 20%	0.1 V / 100K	2.3	1.100	0.65	0.90
CHTP5022R-102M	1000 ± 20%	0.1 V / 100K	1.9	1.500	0.55	0.75

Other non standard inductance value are available to meet your exact requirements

Note:

1. Inductance measured by LCR Meter HP 4294/ HP4291
2. DCR measured by Milliohm meter CH 502AC
3. SRF measured by Network analyzer HP 4294/ HP4291
4. SRF is for reference only.
5. ΔTemperature = 40 °C Max at I_{rms}
6. ΔL / L0A = 10% Typical at I_{sat}