

MHCD Series



Chilisin's MHCD Series provides high current and low DCR in compact sizing with magnetically shielded construction. This power inductor is an excellent power solution for space-limited devices.

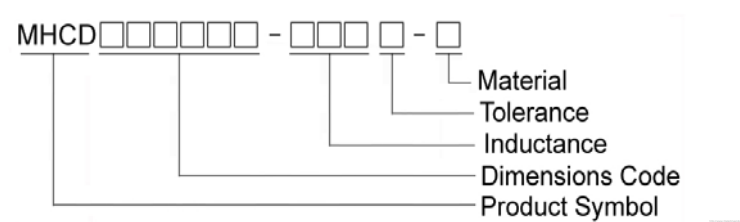
Features

- Monolithic, magnetically shielded
- Compact high saturation current
- Minimum height=1.0mm Max

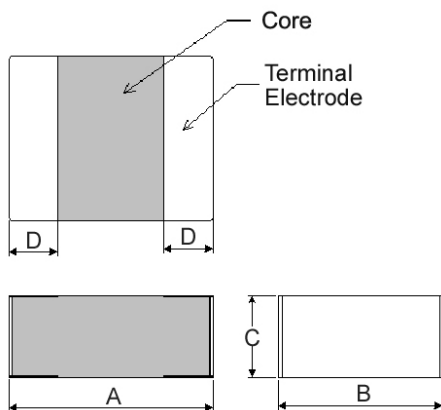
Applications

- Smartphone
- Tablet PC
- Hard disk of ultrabook
- LTE module
- Portable device

Product Identification



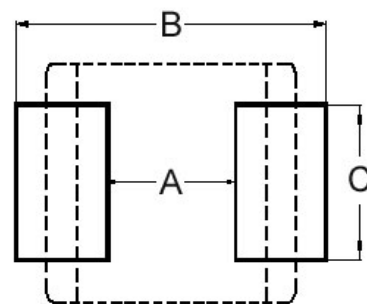
Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
201610	2.0±0.2	1.6±0.2	1.0Max	0.5±0.3
201612	2.0±0.2	1.6±0.2	1.2Max	0.5±0.3
252010	2.5±0.2	2.0±0.2	1.0Max	0.6±0.2
252012	2.5±0.2	2.0±0.2	1.2Max	0.6±0.2
322510	3.2±0.2	2.5±0.2	1.0Max	0.6±0.2
322512	3.2±0.2	2.5±0.2	1.2Max	0.6±0.2

Recommended Pattern



Dimensions in mm

TYPE	A	B	C
201610	0.9	2.0	1.6
201612	0.9	2.0	1.6
252010	1.2	2.8	2.0
252012	1.2	2.8	2.0
322510	1.7	3.2	2.5
322512	1.7	3.2	2.5

Molding Power Choke – MHCD Series

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Irms (A)Max	Isat (A)Max	RDC (mΩ)Max
MHCD201610-R56M-A8T	0.56	20	2	2.8	2.8	59
MHCD201610-R68M-A8T	0.68	20	2	2.5	2.6	72
MHCD201610-1R0M-A8T	1.0	20	2	2.0	2.2	96
MHCD201610-1R5M-A8T	1.5	20	2	1.6	1.8	144
MHCD201610-2R2M-A8T	2.2	20	2	1.2	1.5	204

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Irms (A)Max	Isat (A)Max	RDC (mΩ)Max
MHCD201612-R47M-A8T	0.47	20	2	3.2	3.4	52
MHCD201612-1R0M-A8T	1.0	20	2	2.3	2.5	82
MHCD201612-1R5M-A8T	1.5	20	2	1.8	2.0	114
MHCD201612-2R2M-A8T	2.2	20	2	1.3	1.6	192

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Irms (A)Max	Isat (A)Max	RDC (mΩ)Max
MHCD252010-R47M-A8T	0.47	20	2	3.1	3.1	46
MHCD252010-1R0M-A8T	1.0	20	2	2.5	2.7	78
MHCD252010-1R5M-A8T	1.5	20	2	1.9	2.1	108

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	Irms (A)Max	Isat (A)Max	RDC (mΩ)Max
MHCD252012-R47M-A8T	0.47	20	2	3.7	3.8	39
MHCD252012-1R0M-A8T	1.0	20	2	3.0	3.0	59
MHCD252012-1R5M-A8T	1.5	20	2	2.4	2.6	72

- Irms DC current (A) that will cause an approximate ΔT of 40°C.
- Isat DC current (A) that will cause L to drop approximately 30%
- Tolerance : N= ±30%
- L : E4980A+42841A, 2MHz 0.2V
- Rdc : CHEN HWA 502
- Operating temperature range from -55°C to 125°C. (Including self - temperature rise)

Molding Power Choke – MHCD Series

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	I _{rms} (A)Max	I _{sat} (A)Max	RDC (mΩ)Max
MHCD322510-R47N-A8T	0.47	30	2	3.3	3.8	38
MHCD322510-1R0N-A8T	1.0	30	2	2.6	3.1	62
MHCD322510-1R5N-A8T	1.5	30	2	2.1	2.6	87
MHCD322510-2R2N-A8T	2.2	30	2	1.6	2.2	118

Electrical Characteristics

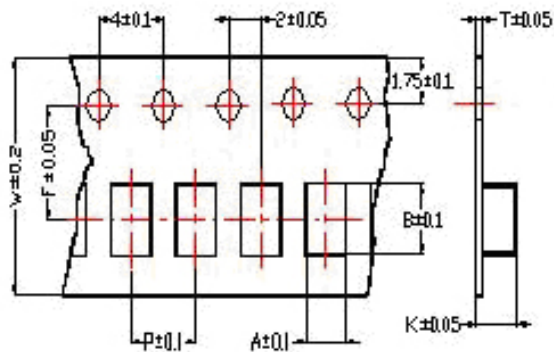
Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	I _{rms} (A)Max	I _{sat} (A)Max	RDC (mΩ)Max
MHCD322512-R47N-A8T	0.47	30	2	3.7	4.7	31
MHCD322512-1R0N-A8T	1.0	30	2	3.1	3.7	45
MHCD322512-1R5N-A8T	1.5	30	2	2.6	3.0	65
MHCD322512-2R2N-A8T	2.2	30	2	2.1	2.6	84

- I_{rms} DC current (A) that will cause an approximate ΔT of 40°C.
- I_{sat} DC current (A) that will cause L to drop approximately 30%
- Tolerance : N= ±30%
- L : E4980A+42841A, 2MHz 0.2V
- R_{dc} : CHEN HWA 502
- Operating temperature range from -55°C to 125°C . (Including self - temperature rise)

Molding Power Choke – MHCD Series

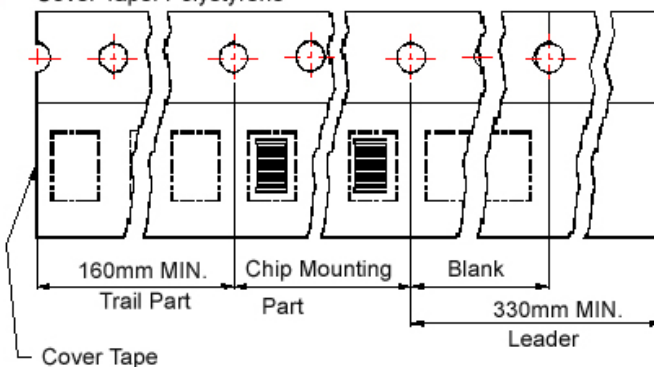
Packaging Specifications

Tape Dimensions

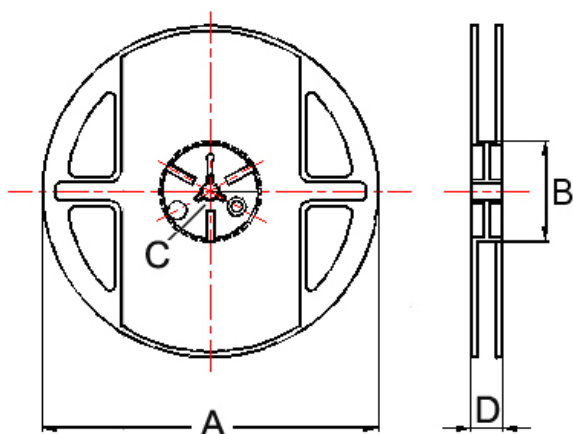


Tape Material

Carrier Tape: Polycarbonate
Cover Tape: Polystyrene



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity PCS / REEL
	A	B	T	W	P	F	K	A	B	C	D	
201610	1.80	2.20	0.25	8	4	3.5	1.15	178	60	12	1.5	3000
201612	1.80	2.20	0.25	8	4	3.5	1.35	178	60	12	1.5	3000
252010	2.25	2.80	0.25	8	4	3.5	1.15	178	60	12	1.5	3000
252012	2.25	2.80	0.25	8	4	3.5	1.35	178	60	12	1.5	3000
322510	2.77	3.42	0.22	8	4	3.5	1.55	178	60	12	1.5	3000
322512	2.77	3.42	0.22	8	4	3.5	1.55	178	60	12	1.5	3000