

MRSC Series



MRSC series, metal alloy wire wound power inductor, its rated current could be increased up to 35% compare to ferrite base power inductor.

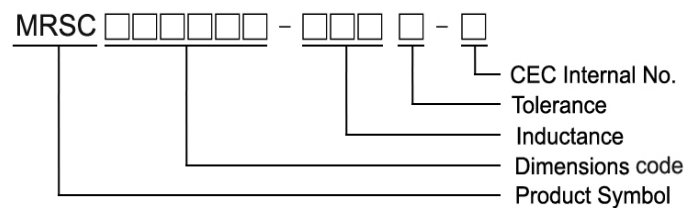
Features

- RoHS, Halogen Free and REACH Compliance
- Constructure Low RDC and high rated current.
- Wide inductance range
- Shielded and miniature package design

Applications

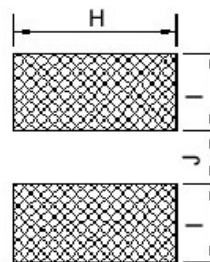
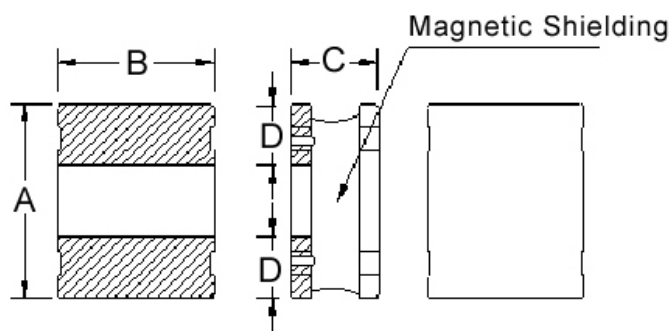
- Smartphones, tablets and wearable devices
- DSC, camcorders
- DC/DC converters

Product Identification



Shape and Dimensions

Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D	H	I	J
MRSC201B10	2.0±0.2	1.6±0.2	1.0 Max	0.65	1.7	0.7	0.7
MRSC201B12	2.0±0.2	1.6±0.2	1.2 Max	0.50	1.7	0.6	0.9
MRSC252A10	2.5±0.2	2.0±0.2	1.0 Max	0.85	2.1	0.9	0.8
MRSC252A12	2.5±0.2	2.0±0.2	1.2 Max	0.85	2.1	0.9	0.8

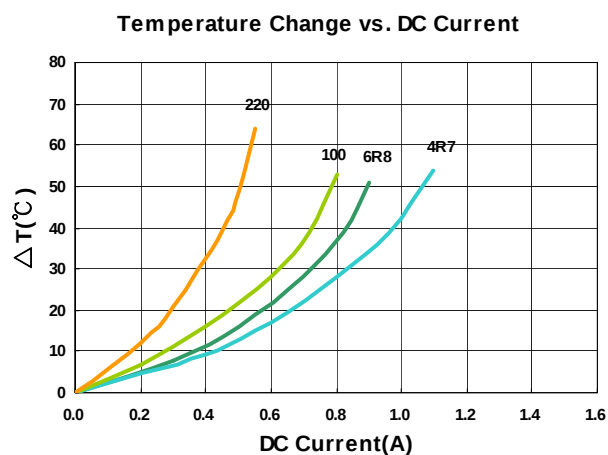
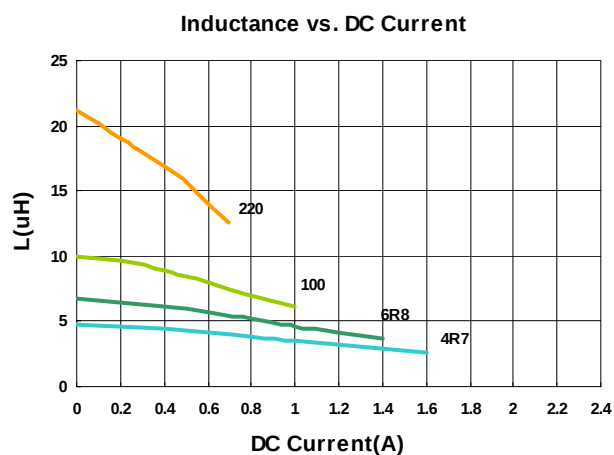
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
MRSC201B10-4R7□-N	4.7	1	20, 30	25	370(308)	1.00(1.20)	0.86(0.96)
MRSC201B10-6R8□-N	6.8	1	20, 30	19	526(438)	0.86(0.96)	0.73(0.82)
MRSC201B10-100□-N	10	1	20, 30	15	768(640)	0.70(0.78)	0.64(0.72)
MRSC201B10-220□-N	22	1	20, 30	9	1560(1300)	0.49(0.55)	0.40(0.45)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Measure Equipment :
- L : Agilent 4285A+Agilent 42841A, or equivalent,1MHz 200mV
- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & I rms : Agilent/HP4285A+Agilent 42841A
- SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer



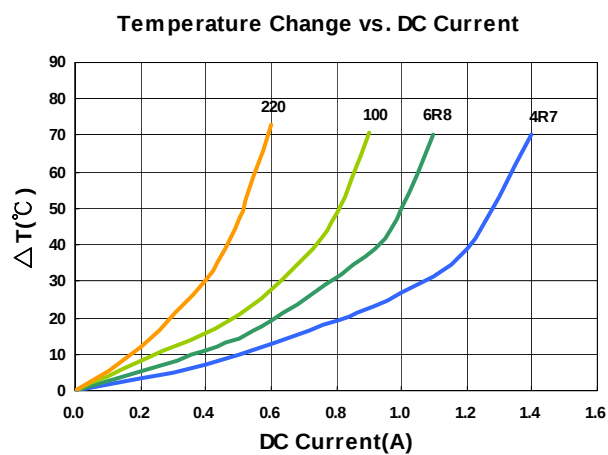
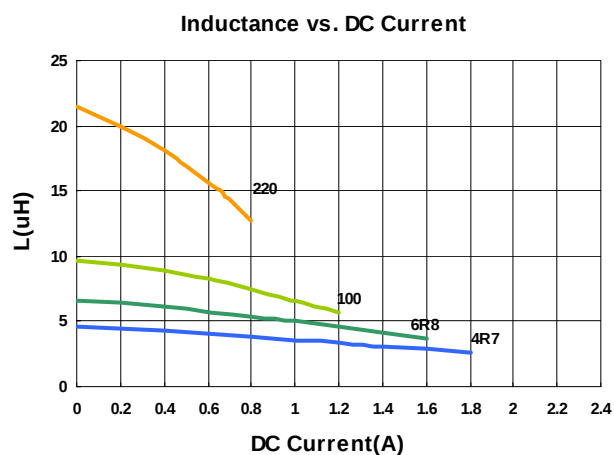
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
MRSC201B12-4R7□-N	4.7	1	20, 30	26	324(270)	1.20(1.40)	1.00(1.20)
MRSC201B12-6R8□-N	6.8	1	20, 30	20	456(380)	1.00(1.20)	0.78(0.92)
MRSC201B12-100□-N	10	1	20, 30	16	720(600)	0.85(0.95)	0.65(0.73)
MRSC201B12-220□-N	22	1	20, 30	10	1500(1250)	0.57(0.64)	0.41(0.46)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

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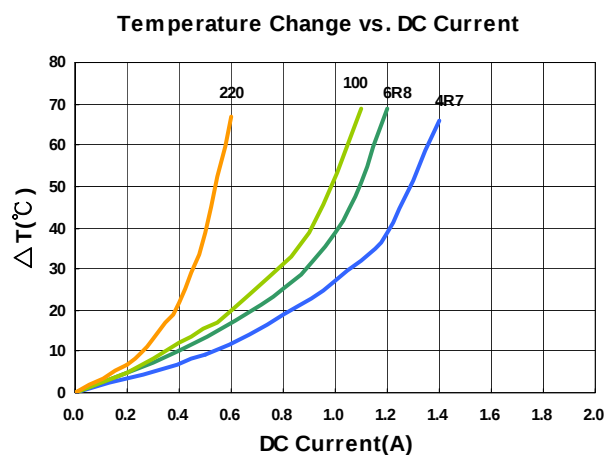
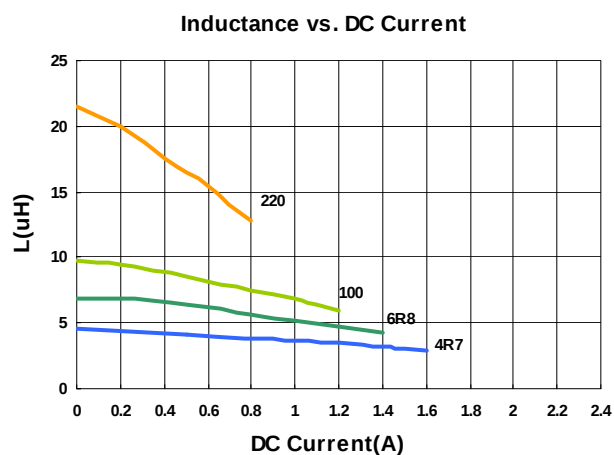
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
MRSC252A10-4R7□-N	4.7	1	20, 30	19	264(220)	1.30(1.40)	1.10(1.20)
MRSC252A10-6R8□-N	6.8	1	20, 30	15	396(330)	1.00(1.10)	0.90(1.00)
MRSC252A10-100□-N	10	1	20, 30	12	500(435)	0.90(1.00)	0.80(0.90)
MRSC252A10-220□-N	22	1	20, 30	8	1260(1050)	0.56(0.63)	0.45(0.50)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

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- RDC : DIGITAL MILLINHM METER CHROMA 16502, or equivalent
- Isat & I rms : Agilent/HP4285A+Agilent 42841A
- SRF : HP4294A+16092A

Test Instruments : HP4285A Material/Impedance Analyzer



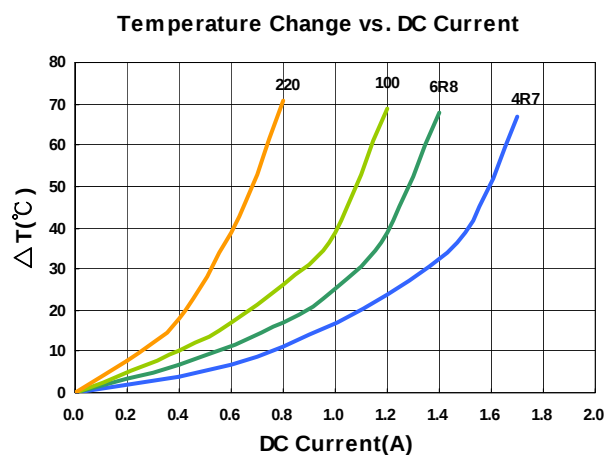
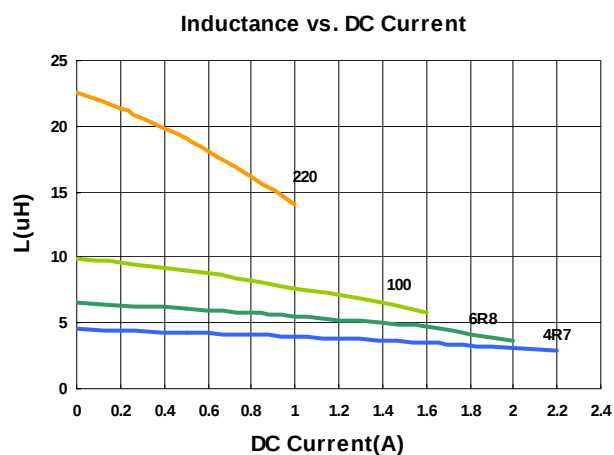
Electrical Characteristics

Part Number	Inductance (uH)	Test Frequency (MHz)	Tolerance (±%)	SRF (MHz) Min	RDC(mΩ) (Max) Typ	Isat (A) (Max) Typ	Irms (A) (Max) Typ
MRSC252A12-4R7□-N	4.7	1	20, 30	23	240(200)	1.70(1.90)	1.30(1.50)
MRSC252A12-6R8□-N	6.8	1	20, 30	16	345(285)	1.30(1.60)	1.00(1.20)
MRSC252A12-100□-N	10	1	20, 30	14	480(400)	1.00(1.30)	0.85(1.00)
MRSC252A12-220□-N	22	1	20, 30	8	1090(910)	0.74(0.83)	0.54(0.60)

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T =±30%

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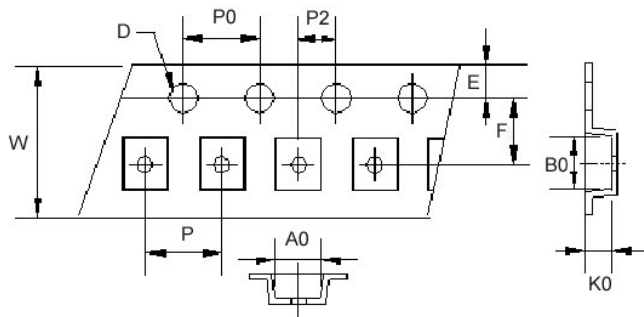
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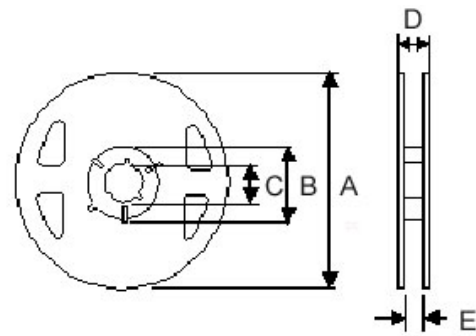
Sealed Power Inductors - MRSC Series

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions										Reel Dimensions					Quantity PCS / Reel
	A0	B0	K0	D	E	F	W	P	P0	P2	A	B	C	D	E	
MRSC201B10	1.90	2.20	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
MRSC201B12	1.95	2.20	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
MRSC252A10	2.35	2.80	1.15	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000
MRSC252A12	2.35	2.80	1.35	1.55	1.75	3.5	8	4	4	2	180	60	13	14.4	8.4	2000