

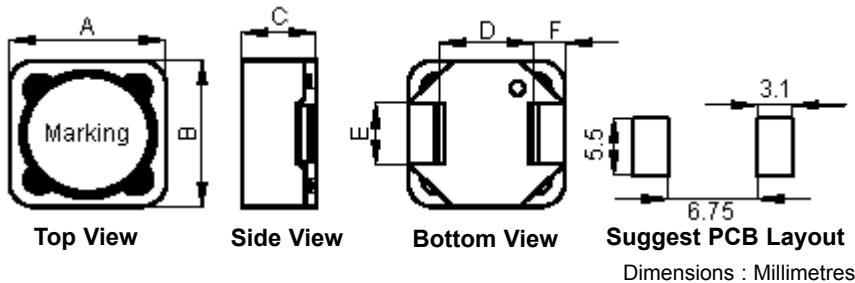


Features:



- Ferrite based SMD inductor with lower core loss.
- Inductance range: 0.82 μH to 1,000 μH . Custom values are welcome.
- High current output chokes, up to 24.2 amperes with about 30% roll off.
- Low profile 6 mm maximum height.
- Foot print 12.5 $\times$ 12.5 mm maximum.
- Ideal for LCD driver, DSC/DVC, Notebook PC or High density board design.
- Operating temperature range -55°C to + 130°C.
- T and R Quantity: 600 pieces, 13 inches reel.

Mechanical Dimensions



Typ.	MCSDRH125B	
A	12 $\pm$ 0.5 mm	-
B	12 $\pm$ 0.5 mm	-
C	6 mm	(Max.)
D	7 mm	(Ref.)
E	5 mm	
F	2.5 mm	

Electrical Characteristics of MCSDRH125B Series

OCL (μH) $\pm 20\%$	DCR (Ω) (Typ.)	DCR (Ω) (Max.)	I_{sat} (A) at 25°C	L at I_{sat} (μH) (Typ.)	I_{rms} (A) at 25°C	L at I_{rms} (μH) (Typ.)
0.82	0.0039	0.0047	24.2	0.659	15.5	0.807
1.5	0.0052	0.00625	18.5	1.12	13.3	1.4
2.2	0.0064	0.0077	14.8	1.75	12	2.05
3.3	0.0079	0.0095	12.6	2.65	10.8	2.95
4.7	0.0107	0.01285	10.1	3.6	9.3	4
6.8	0.0119	0.0143	8.4	5.75	8.8	5.5
8.2	0.0156	0.0187	7.6	6.6	7.7	6.5
10	0.0164	0.0197	6.9	8.3	7.5	7.45
15	0.0268	0.0322	5.65	11.2	5.8	10.77
22	0.0318	0.0382	4.7	18.7	5.4	15.3
33	0.0445	0.0534	4	26.65	4.5	21.7
47	0.0659	0.079	3.2	37.95	3.7	29.4
68	0.0991	0.119	2.7	55.6	3.05	45.3
82	0.121	0.145	2.4	67	2.75	52
100	0.155	0.186	2.2	79	2.4	66.7
150	0.217	0.26	1.8	124.8	2.05	98

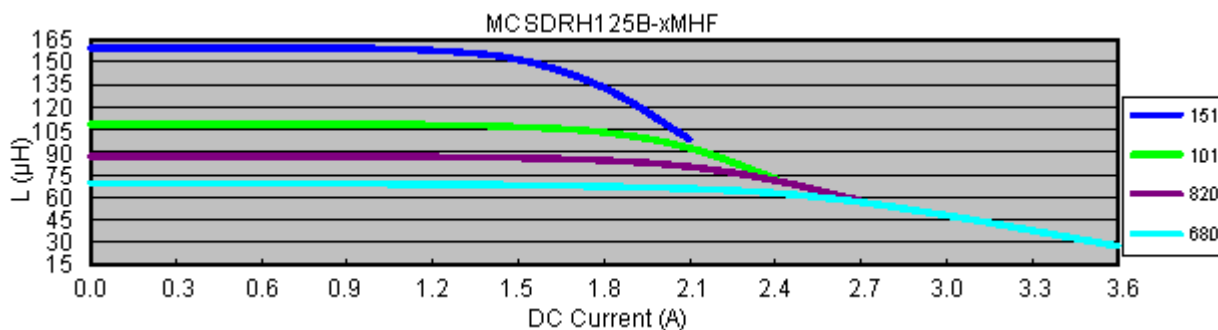
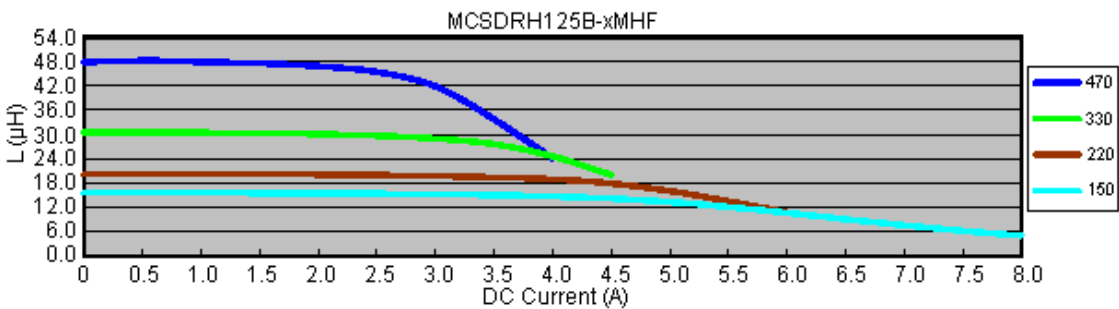
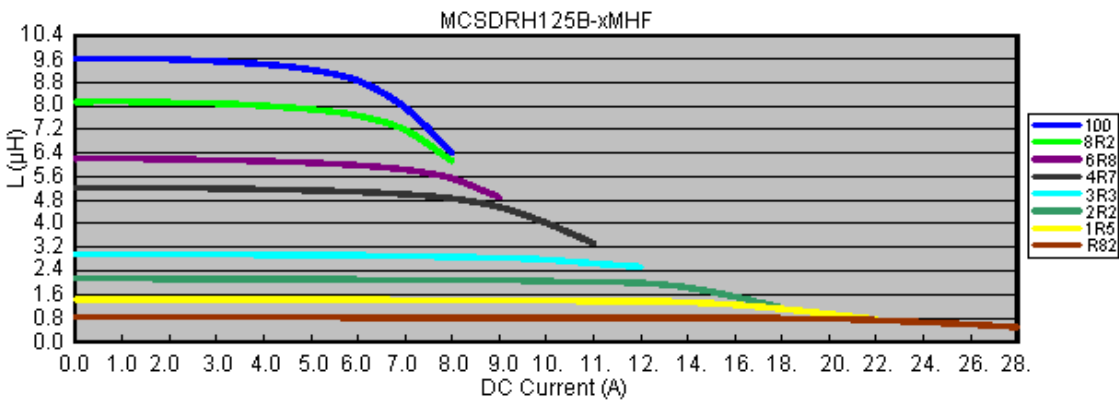
Electrical Characteristics of MCSDRH125B Series

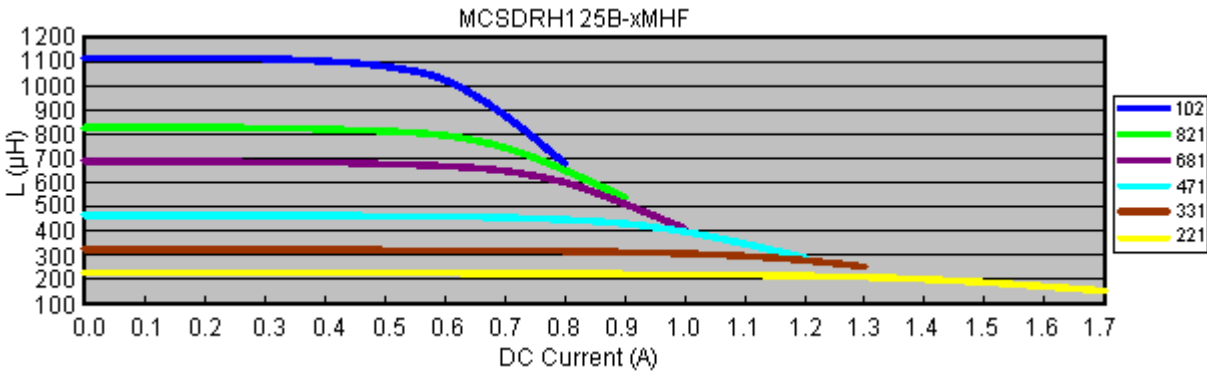
OCL (μH) $\pm 20\%$	DCR (Ω) (Typ.)	DCR (Ω) (Max.)	I_{sat} (A) at 25°C	L at I_{sat} (μH) (Typ.)	I_{rms} (A) at 25°C	L at I_{rms} (μH) (Typ.)
220	0.321	0.385	1.5	182.4	1.7	148
330	0.434	0.52	1.2	284	1.45	206.5
470	0.627	0.753	1	402	1.2	293
680	0.888	1.066	0.85	548	1	404
820	1.093	1.312	0.76	680	0.92	511
1,000	1.409	1.690	0.69	801	0.8	610

Note :

1. OCL (Open Circuit Inductance) and L at I_{rms} and L at I_{sat} and DCR are measured at: 100 KHz, 0.25 V at 25°C.
2. I_{sat} : DC current that causes inductance to drop by approximately 30% from OCL ; ($T_a = 25^\circ\text{C}$).
3. I_{rms} : DC current that causes an approximate temperature rise (ΔT) of 40°C ; ($T_a = 25^\circ\text{C}$).

Inductance vs. Current





Part Number Table

Description	Part Number
Inductor, 820nH, 20%, 2pins	MCSDRH125B-R82MHF
Inductor, 1.5µH, 20%, 12.5A	MCSDRH125B-1R5MHF
Inductor, 2.2µH, 20%, 2pins	MCSDRH125B-2R2MHF
Inductor, 3.3µH, 20%, 2pins	MCSDRH125B-3R3MHF
Inductor, 4.7µH, 20%, 2pins	MCSDRH125B-4R7MHF
Inductor, 6.8µH, 20%, 2pins	MCSDRH125B-6R8MHF
Inductor, 8.2µH, 20%, 2pins	MCSDRH125B-8R2MHF
Inductor, 10µH, 20%, 2pins	MCSDRH125B-100MHF
Inductor, 15µH, 20%, 2pins	MCSDRH125B-150MHF
Inductor, 22µH, 20%, 2pins	MCSDRH125B-220MHF
Inductor, 33µH, 20%, 2pins	MCSDRH125B-330MHF
Inductor, 47µH, 20%, 2pins	MCSDRH125B-470MHF
Inductor, 68µH, 20%, 2pins	MCSDRH125B-680MHF
Inductor, 82µH, 20%, 2pins	MCSDRH125B-820MHF
Inductor, 100µH, 20%, 2pins	MCSDRH125B-101MHF
Inductor, 150µH, 20%, 2pins	MCSDRH125B-151MHF
Inductor, 220µH, 20%, 2pins	MCSDRH125B-221MHF
Inductor, 330µH, 20%, 2pins	MCSDRH125B-331MHF
Inductor, 470µH, 20%, 2pins	MCSDRH125B-471MHF
Inductor, 680µH, 20%, 2pins	MCSDRH125B-681MHF
Inductor, 820µH, 20%, 2pins	MCSDRH125B-821MHF
Inductor, 1mH, 20%, 2pins	MCSDRH125B-102MHF

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