SMHC5020 Series

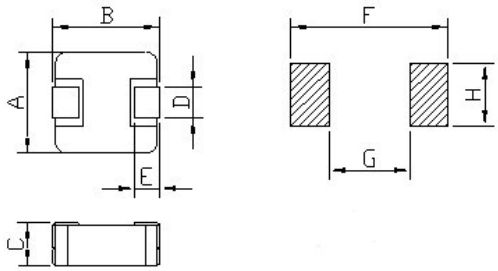
Features:

•5mm Max. Height Molding Inductor for High Frequency Application
•Inductance Range: 0.10uH to 10.00uH. Custom Values Welcomed
•High Current Capability up to 118.0 A for Output Chokes Application
•Ideal for Servers, Workstation Notebooks, VGA cards, and High Density Boards
•Low DC Resistance and Compact Size for High Power Application
•Quantity Per Reel: 500 pcs per 13" Reel
•Operating Temperature Range -55° C to + 125° C

Electrical Characteristics:

EMC Part Number	OCL (uH) ±20 %	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (Amp) @25° C	Isat (Amp) @25° C
SMHC5020-R10MHF	0.10	0.53	0.60	55.0	118.0
SMHC5020-R22MHF	0.22	0.64	0.80	51.0	110.0
SMHC5020-R33MHF	0.33	0.85	1.10	42.0	80.0
SMHC5020-R36MHF	0.36	0.85	1.10	42.0	70.0
SMHC5020-R47MHF	0.47	1.10	1.30	38.0	65.0
SMHC5020-R56MHF	0.56	1.30	1.50	36.0	55.0
SMHC5020-R68MHF	0.68	1.50	1.70	34.0	54.0
SMHC5020-R82MHF	0.82	2.00	2.30	31.0	53.0
SMHC5020-1R0MHF	1.00	2.10	2.50	29.0	50.0
SMHC5020-1R2MHF	1.20	2.80	3.50	25.0	49.0
SMHC5020-1R5MHF	1.50	3.40	4.10	23.0	48.0
SMHC5020-1R8MHF	1.80	4.20	4.90	19.0	40.0
SMHC5020-2R2MHF	2.20	4.60	5.50	18.0	32.0
SMHC5020-2R7MHF	2.70	5.30	6.39	17.0	28.0
SMHC5020-3R3MHF	3.30	7.70	9.20	15.0	27.5
SMHC5020-4R7MHF	4.70	12.8	15.0	12.0	27.0
SMHC5020-6R8MHF	6.80	15.4	18.5	11.0	21.0
SMHC5020-8R2MHF	8.20	18.9	22.5	9.5	18.0
SMHC5020-100MHF	10.00	21.4	25.5	9.0	16.0

Mechanical Dimensions (Unit: mm):



A ± .50	B Max.	C Max.	D ± .50	E ± .50
12.8	14.2	5.0	3.8	2.5

F (ref.)	G (ref.)	H (ref.)
14.5	8.0	5.0

Notes:
1.OCL (Open Circuit Inductance) and L@ Irms and L @Isat are measured at: 100KHz, 1.0V @ 25ºC.
2.Isat: DC current that causes inductance to drop by approximately 30% from OCL
3.Irms: DC current that causes an approximate temperature rise (△T) of 40℃
4.The part temperature (ambient + temp rise) should not exceed 125℃ under the worst operating conditions. Circuit design, component placement, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

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Revised B: 12/11/12

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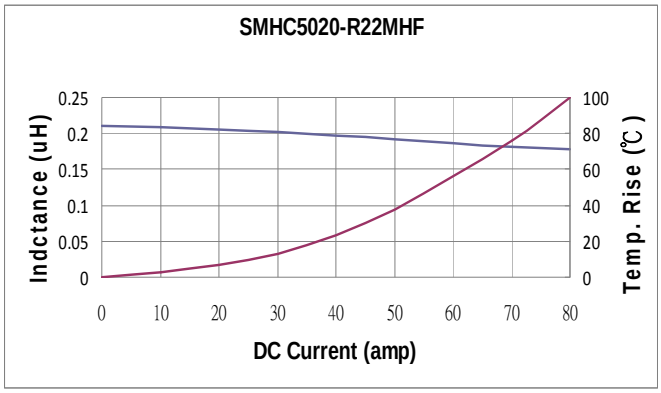
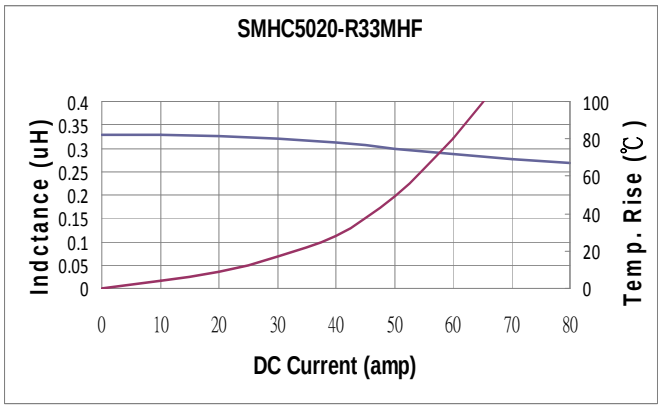
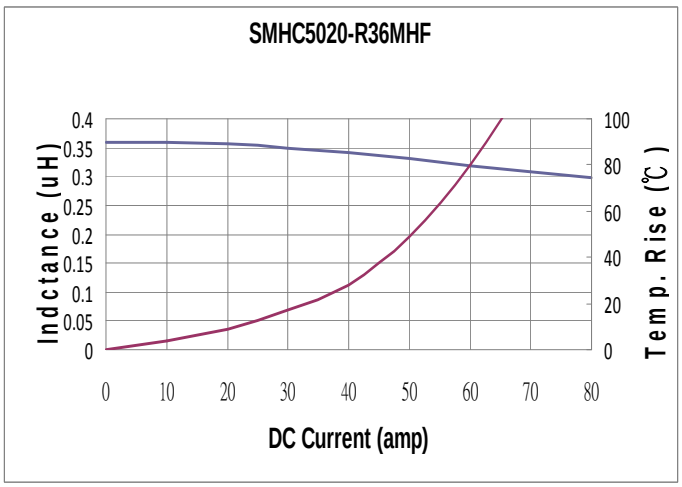
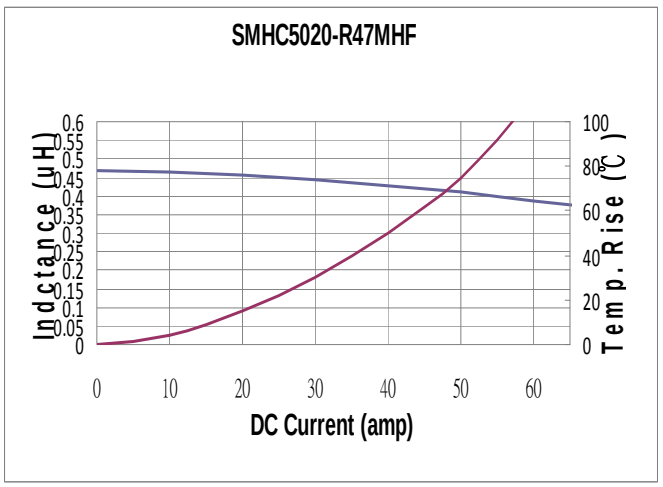
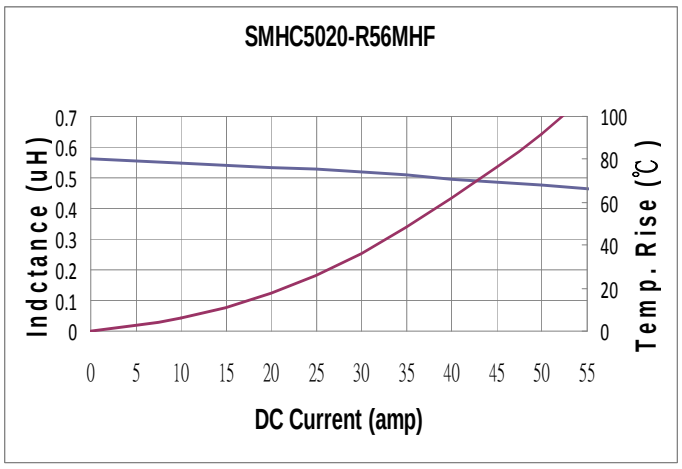
Inductance vs. Current vs. Temperature Rise :

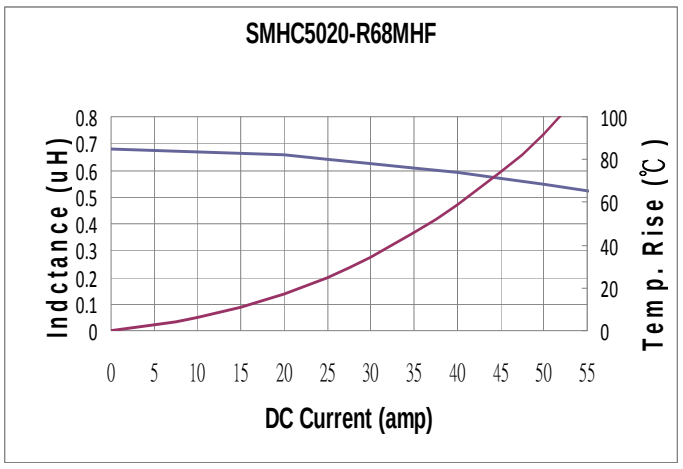












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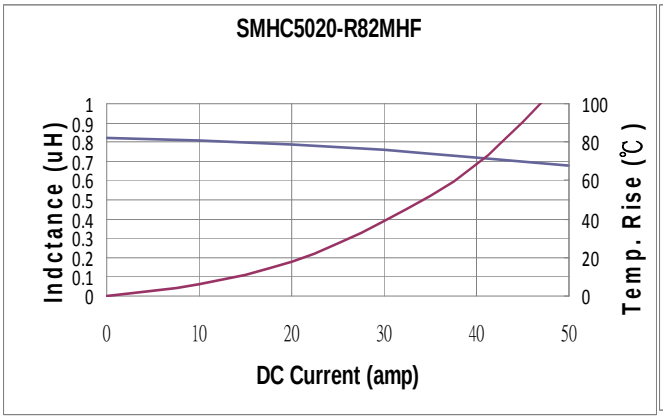

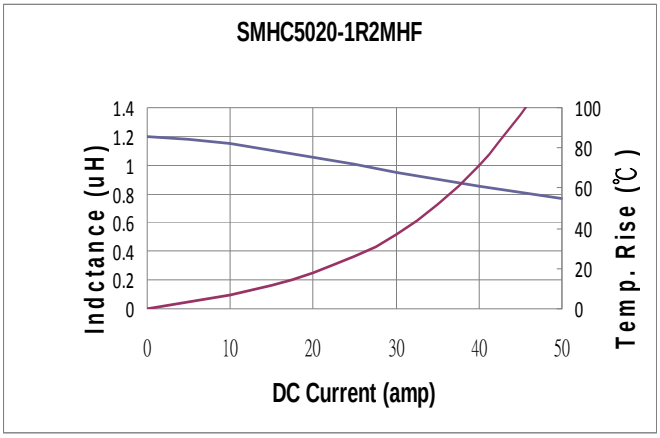

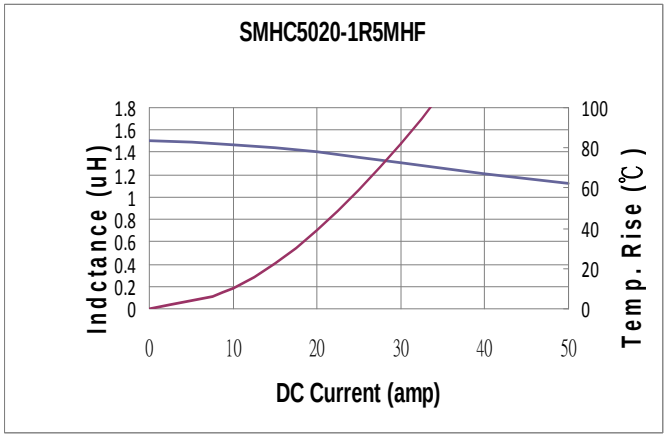

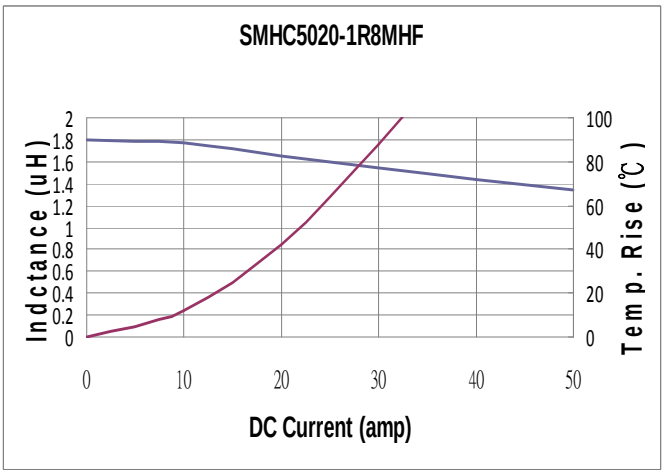

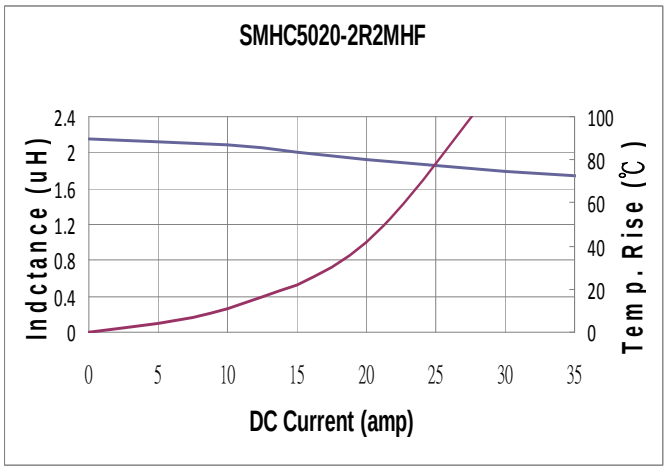

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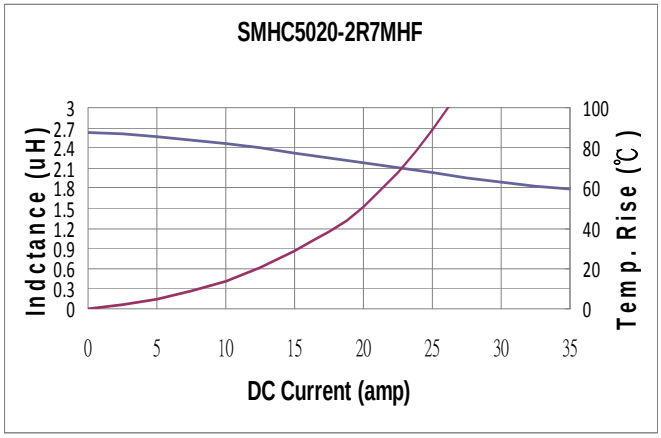

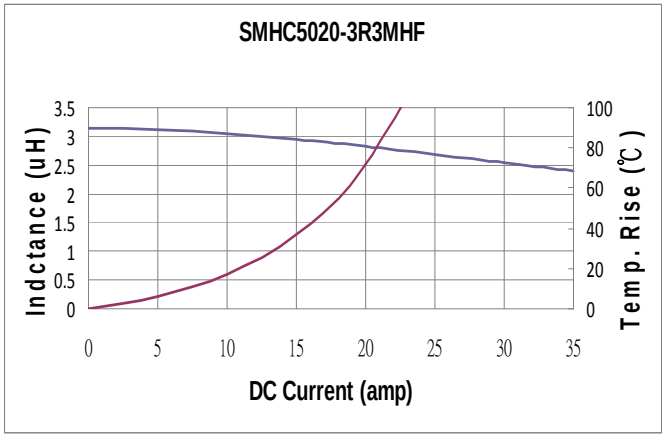

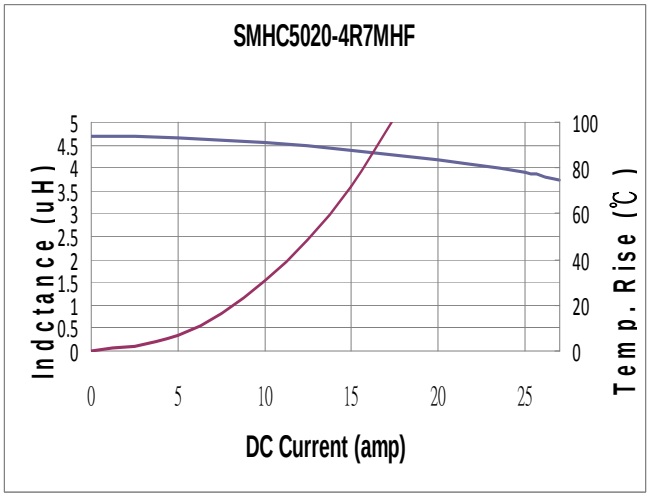

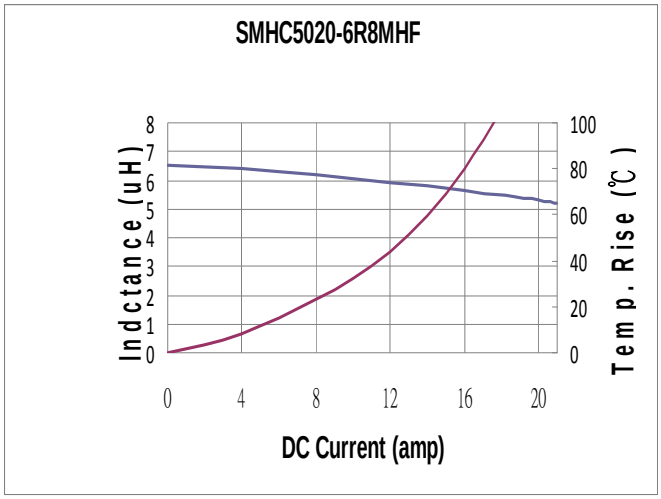

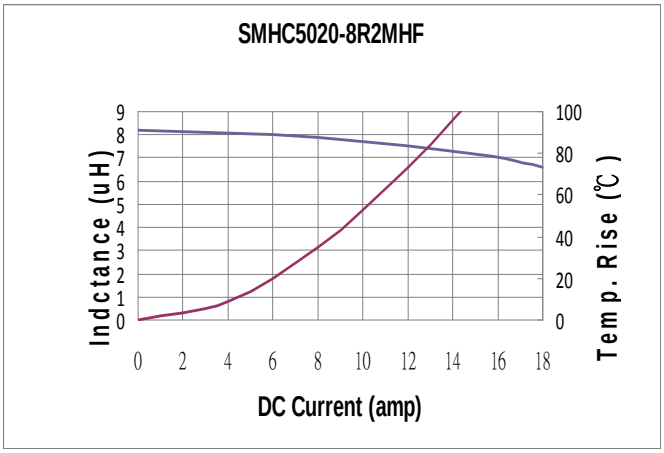

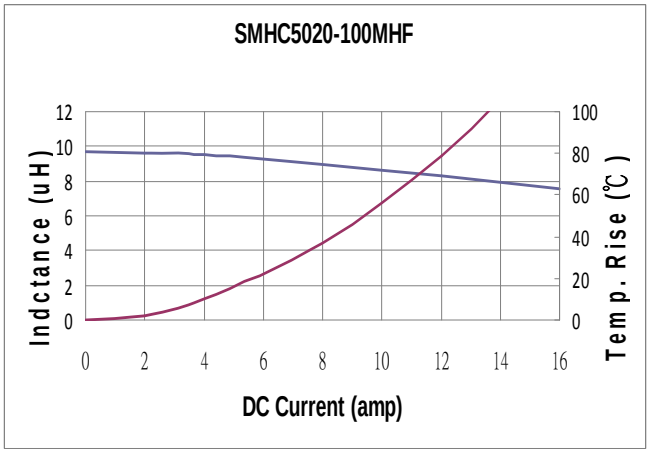

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