

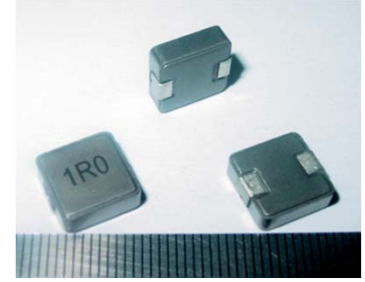


# SMHC5026 Series

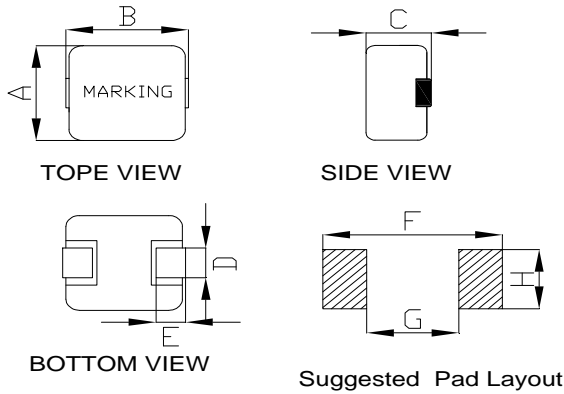


## 1. Features:

- Molded Inductor with lower core loss for high frequency application.
- Inductance Range:0.30uH to 10uH. Custom values are welcomed.
- High current output chokes, up to 72 Amp.
- Ideal for desktop computers,servers,workstations,VGA card ,High-End switches and routers,VRMs & High Density Board Design.
- Very low DC resistance and compact size,high performance,low cost.
- Operating Temperature Range -55°C to + 125°C ; RoHs compliance .



## 2. Mechanical Dimension(Unit:mm):



Type	SMHC5026
A	12.8 ± 0.5
B	13.2 ± 1.0
C	6.5 (Max.)
D	3.8 (Ref.)
E	2.5 (Ref.)
F	14.0 (Ref.)
G	7.8 (Ref.)
H	4.9 (Ref.)

## 3. Electrical Characteristic of SMHC5026 Series:

Part Number	OCL (uH) ±20%	DCR (mΩ) (Max.)	Isat (A) @25°C	L@Isat (uH) Typ.	Irms (A) @25°C	L@Irms (uH) Typ.
SMHC5026-R30MHF	0.30	0.8	72.0	0.260	48.0	0.280
SMHC5026-R33MHF	0.33	0.9	65.0	0.270	46.0	0.283
SMHC5026-R40MHF	0.40	1.0	64.0	0.340	44.0	0.367
SMHC5026-R47MHF	0.47	1.2	63.0	0.382	41.0	0.420
SMHC5026-R56MHF	0.56	1.4	62.0	0.440	37.0	0.495
SMHC5026-R68MHF	0.68	1.6	60.0	0.530	35.0	0.605
SMHC5026-R82MHF	0.82	1.9	50.0	0.673	33.0	0.730
SMHC5026-1R0MHF	1.0	2.0	49.0	0.780	32.0	0.875
SMHC5026-1R2MHF	1.2	2.5	48.0	0.935	30.0	1.050
SMHC5026-1R5MHF	1.5	3.0	45.0	1.134	27.0	1.308
SMHC5026-1R8MHF	1.8	3.2	41.0	1.410	24.0	1.614
SMHC5026-2R2MHF	2.2	4.2	40.0	1.625	22.0	1.933
SMHC5026-3R3MHF	3.3	6.8	35.0	2.26	18.0	2.83
SMHC5026-4R7MHF	4.7	11.2	30.0	3.36	13.5	4.07
SMHC5026-5R6MHF	5.6	10.0	26.5	3.93	13.5	4.80
SMHC5026-6R8MHF	6.8	14.0	16.5	5.55	11.5	6.05
SMHC5026-8R2MHF	8.2	15.5	16.0	6.41	10.5	7.15
SMHC5026-100MHF	10	16.8	15.5	7.61	10.0	8.65

**Note:** 1>.Open Circuit Inductance(OCL) and L@ Irms and L @Isat are measured at: 100KHz, 1.0V ;(Ta=25°C).

2>.Isat: DC current that causes inductance to drop approximately by 30% from OCL ;(Ta=25°C).

3>. Irms: DC current for an approximate temperature rise of 40°C without core loss,.Derating is necessary for AC currents, PCB pad layout,trace thickness and width,air-flow and proximity of other heat generating components will affect the temperature rise.

It is recommended the part temperature not exceed 125°C under worst case operating conditions verified in the end application.

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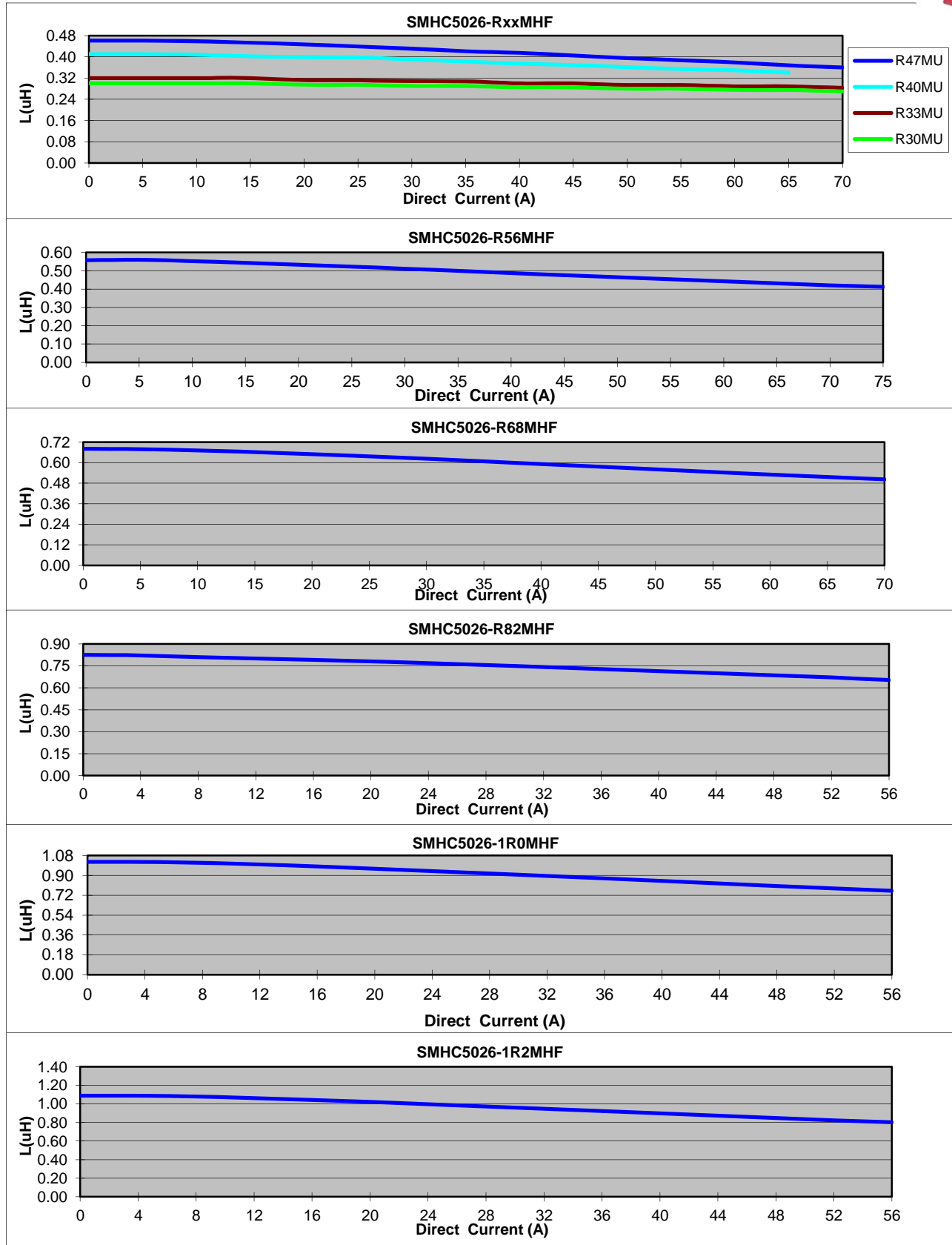
Revision D: 11/15/11



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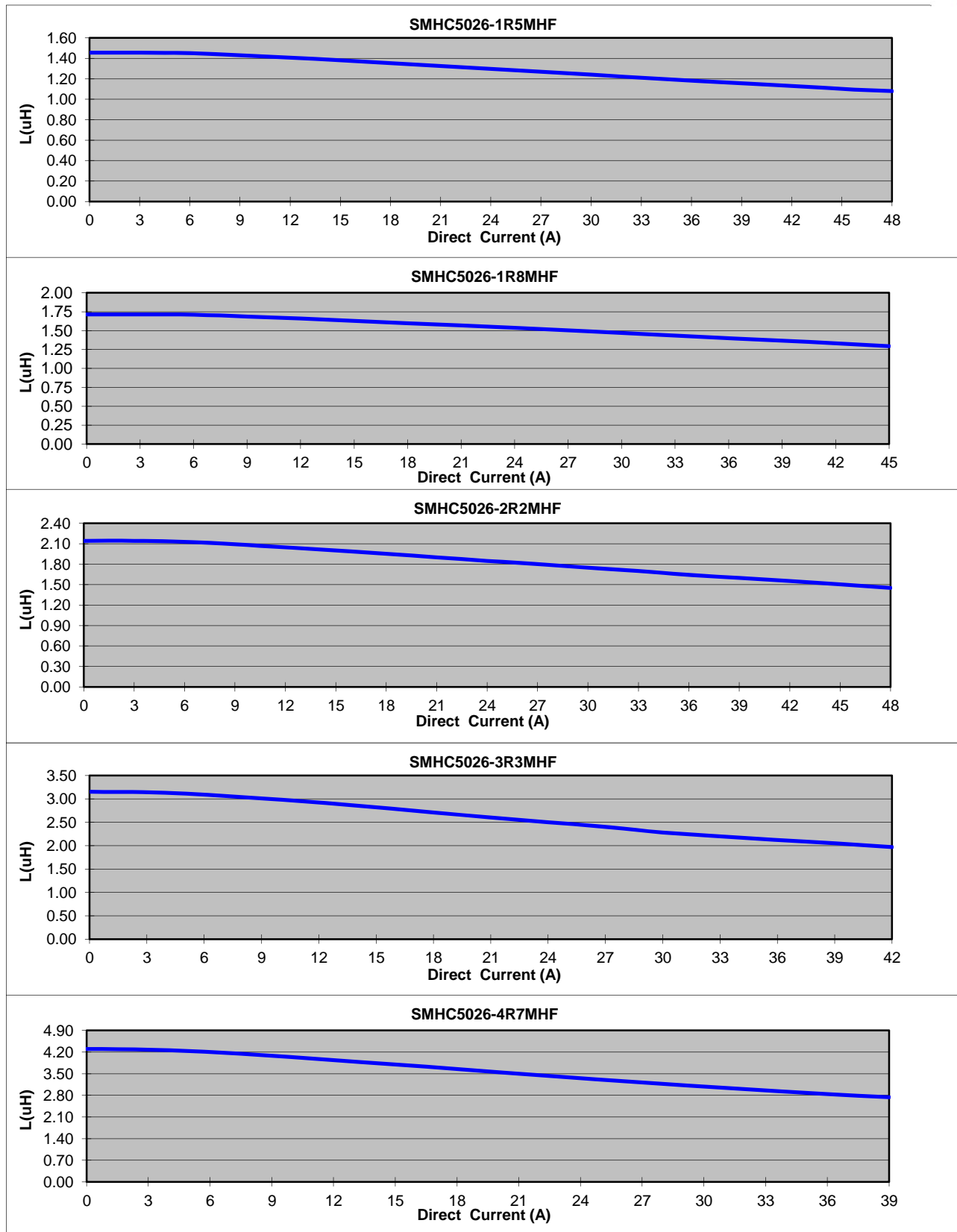
## Inductance vs. Current





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## Inductance vs. Current





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## Inductance vs. Current

