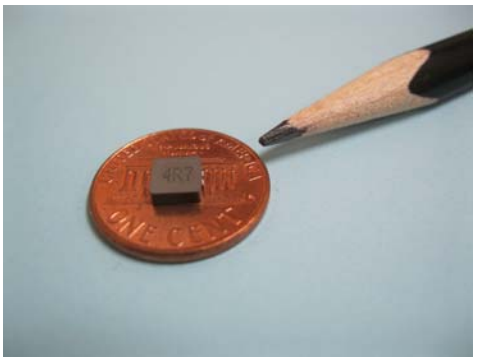
SM2007 Series

1. Features:

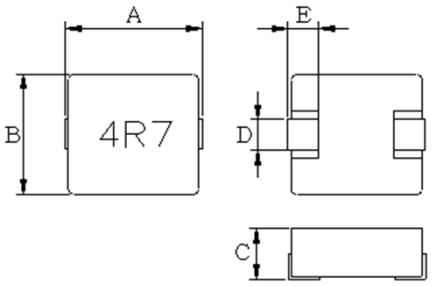
- 5.7x5.4mm foot Print, 1.8mm Max. height SMD Power Inductor for high frequency application.
- Inductance range from 0.56uH to 10uH.
- High saturation current characteristics by distributed gapped metal dust core.
- Ideal for portable device, PAD, Notebook, computers servers, storage device, workstations, VGA card, Telecommunication Equipment, voltage-regulator modules & High Density DC to DC converter Board.
- Lower DC resistance for higher current application.
- Working Frequency up to 5Mhz.
- Tape & Reel Quantity: 1,000 piece per 13 inches reel.
- Operating Temperature Range -55°C to + 125°C.



2. Electrical Characteristics:

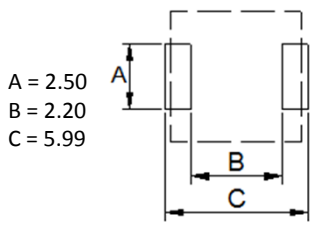
ITG Part Number	OCL (uH) ±20%	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (AMP)	Isat1 (Amp)	Isat2 (Amp)	Size Code
SM2007-R56MHF	0.56	8.0	10.0	9.5	13.0	15.0	S1
SM2007-1R0MHF	1.00	15.0	17.0	8.0	7.0	9.0	S1
SM2007-1R2MHF	1.20	17.0	20.0	7.5	7.5	8.0	S1
SM2007-2R2MHF	2.20	30.0	35.0	5.0	5.5	6.5	S1
SM2007-3R3MHF	3.30	52.0	58.0	4.5	5.0	6.0	S1
SM2007-4R7MHF	4.70	78.0	85.0	3.5	3.5	4.0	S1
SM2007-6R8MHF	6.80	107.0	120.0	2.8	3.0	3.4	S1
SM2007-100MHF	10.0	140.0	155.0	2.5	2.5	3.0	S1

3. Mechanical Dimensions (unit: mm):



Size Code	A ± 0.25	B ± 0.25	C Max.	D ± 0.30	E ± 0.30
S1	5.49	5.18	1.80	2.00	1.02
S2	5.00	4.70	1.80	2.00	1.02
S3	5.10	4.70	1.80	2.00	1.02

Recommended PCB Layout
(Unit mm)



Notes:

1.Open Circuit Inductance(OCL), L@ Irms and L @Isat are measured at 100KHz,1.0V, (Ta=25℃).
2.Isat1: DC current that causes inductance to drop approximately by 20% from OCL.
3.Isat2: DC current that causes inductance to drop approximately by 30% from OCL.
4.Irms: DC current for an approximate temperature rise of 40℃ 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.
5.Inductance vs. DC Current vs. Temperature Curve, please see the next pages for more detail information.

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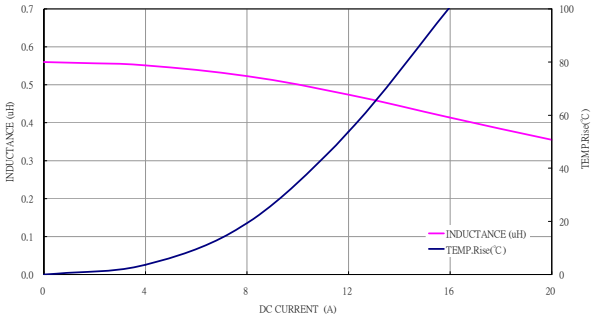
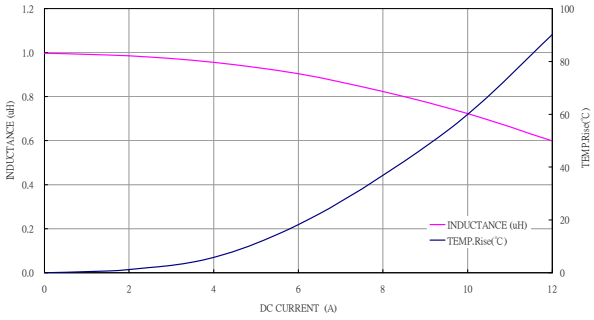
4. Inductance vs. Current vs. Temperature

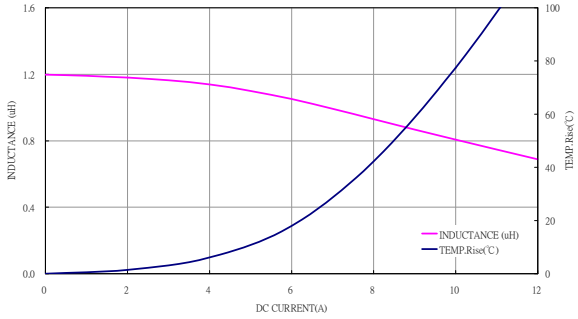
SM2007-R56MHF



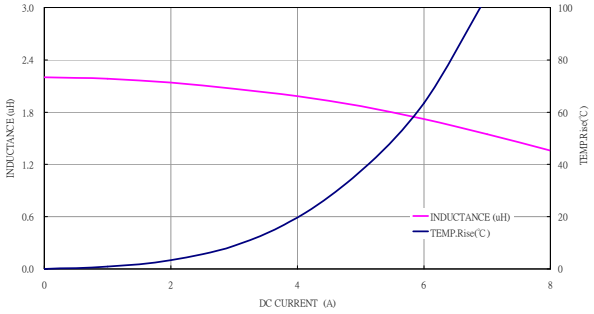
SM2007-1R0MHF



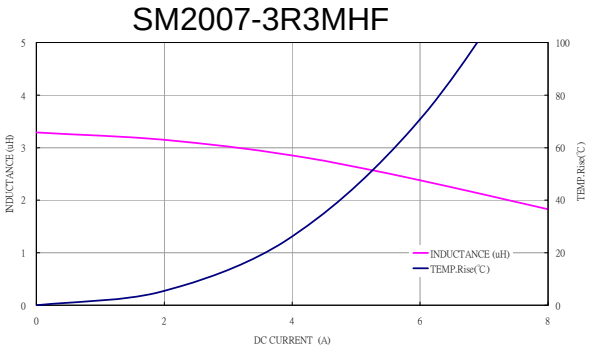
SM2007-1R2MHF



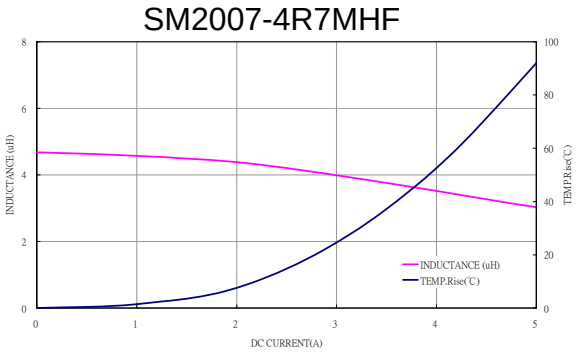
SM2007-2R2MHF



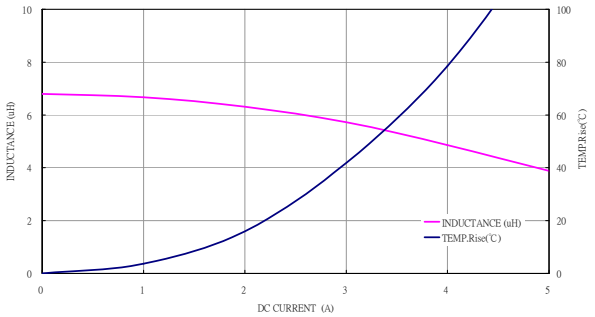
SM2007-3R3MHF



SM2007-4R7MHF



SM2007-6R8MHF



SM2007-100MHF