SM2008 Series

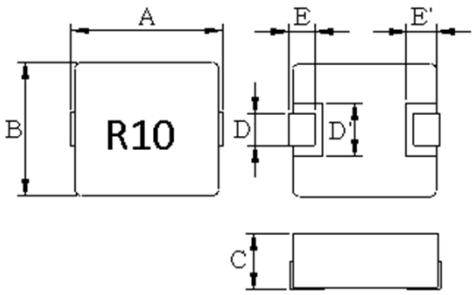
1. Features:

- 5.7x5.4mm foot Print, 2.0mm Max. height SMD Power Inductor for high frequency application.
- Inductance range from 0.10uH to 10uH.
- High saturation current characteristics by distributed gapped metal dust core.
- Ideal for portable device, 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 Inductance (uH) ±20%	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (AMP)	Isat 30% roll of (AMP)
SM2008-R10MHF	0.10	3.6	3.9	17.0	38.3
SM2008-R22MHF	0.22	4.9	5.2	15.0	18.7
SM2008-R33MHF	0.33	7.6	8.2	12.0	21.3
SM2008-R47MHF	0.47	8.1	8.8	11.5	17.9
SM2008-R68MHF	0.68	11.2	12.4	10.0	12.8
SM2008-1R0MHF	1.00	18.9	20.0	7.0	13.7
SM2008-2R2MHF	2.20	45.6	50.1	4.2	10.7
SM2008-3R3MHF	3.30	79.2	85.5	3.3	7.3
SM2008-4R7MHF	4.70	108.0	116.6	2.8	4.3
SM2008-5R6MHF	5.60	113.0	112.0	2.5	3.9
SM2008-6R8MHF	6.80	139.0	150.0	2.4	3.7
SM2008-100MHF	10.00	184.0	199.0	2.3	3.4

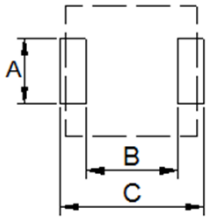
3. Mechanical Dimensions (unit: mm):



A ± 0.25	B ± 0.25	C Max	D ± 0.30	D' ± 0.25	E ± 0.30	E' ± 0.30
5.49	5.18	2.00	2.00	2.45	1.02	1.50

Recommended PCB Layout
(unit in mm)

A = 2.70
B = 2.15
C = 6.00



Notes:

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

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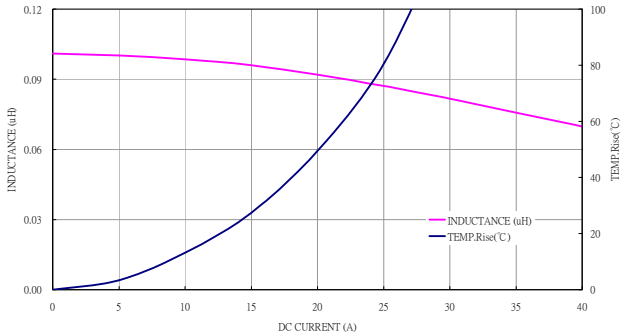
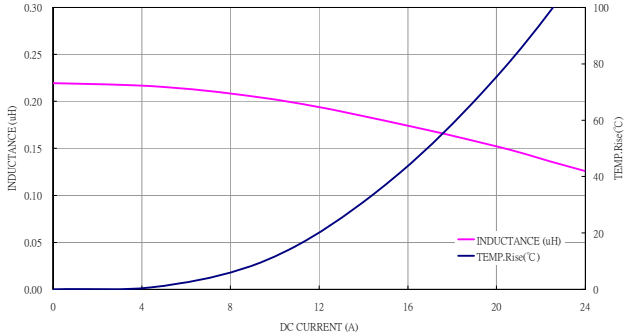
4. Inductance vs. Current vs. Temperature

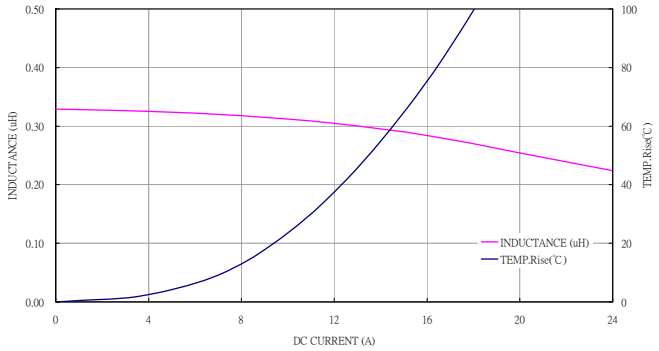
SM2008-R10MHF



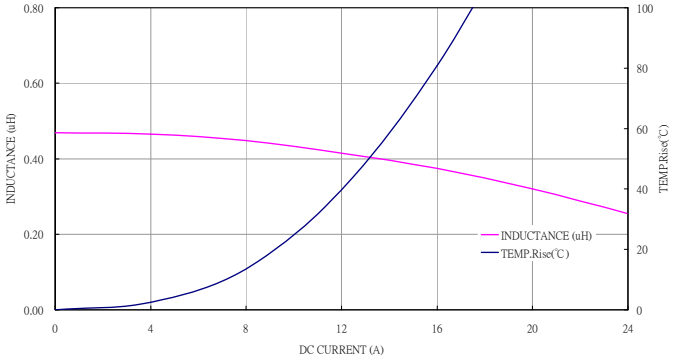
SM2008-R22MHF



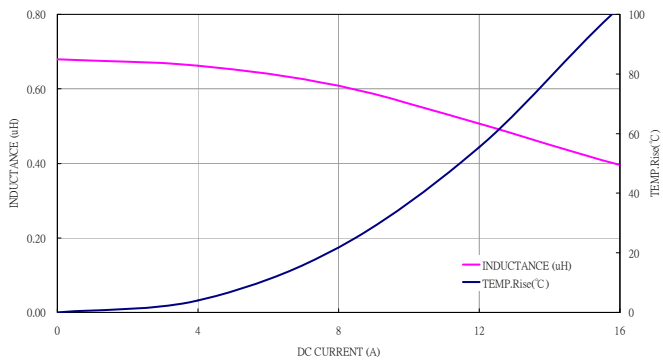
SM2008-R33MHF



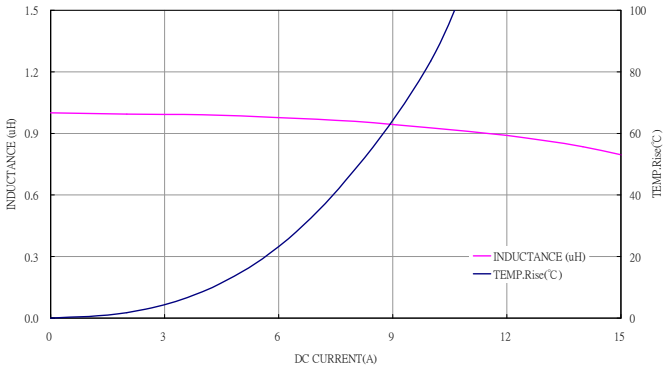
SM2008-R47MHF



SM2008-R68MHF



SM2008-1R0MHF



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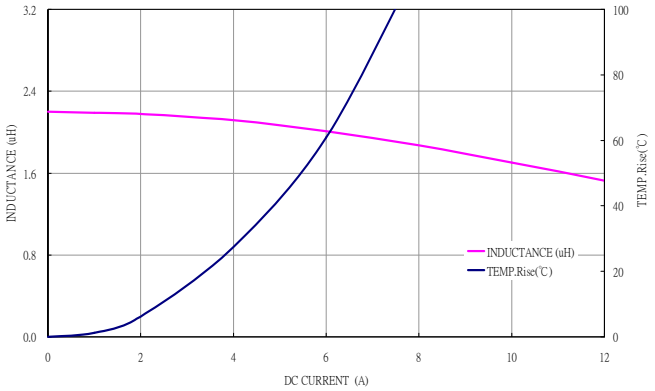
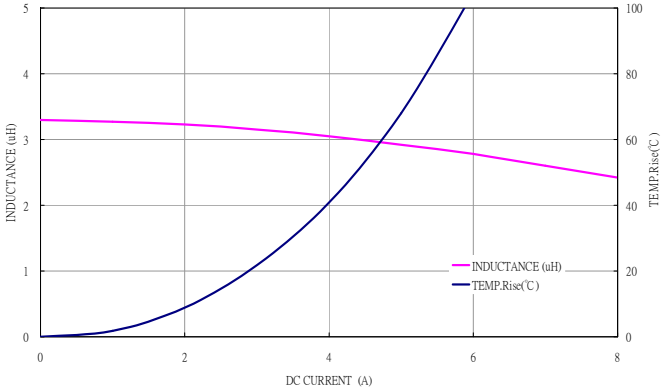
4. Inductance vs. Current vs. Temperature

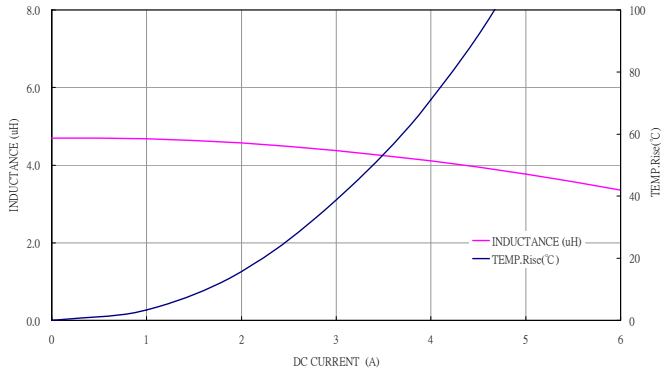
SM2008-2R2MHF



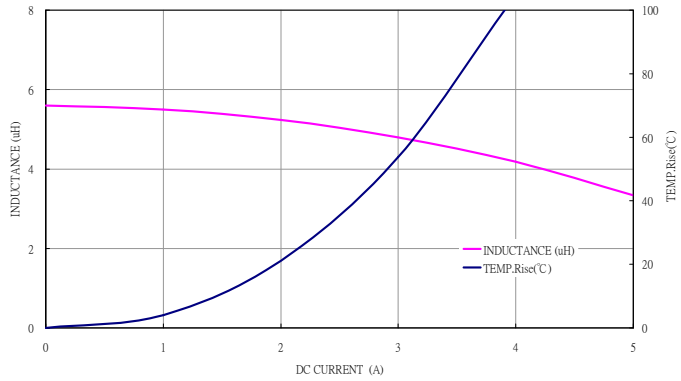
SM2008-3R3MHF



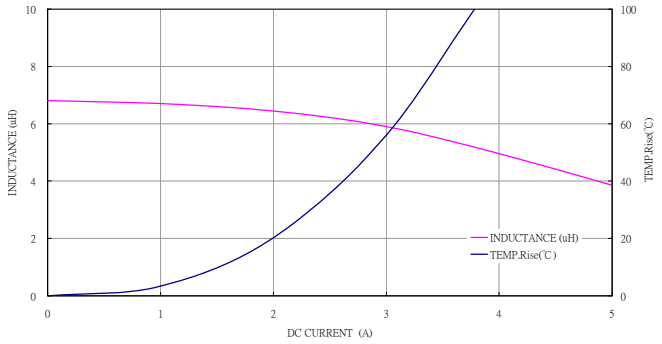
SM2008-4R7MHF



SM2008-5R6MHF



SM2008-6R8MHF



SM2008-100MHF