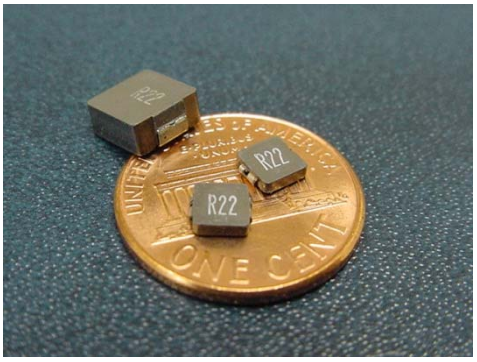
SM2011 Series

1. Features:

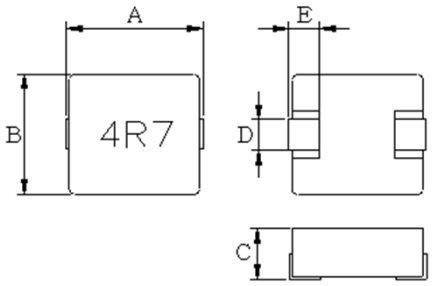
- 5.7x5.4mm foot Print, 3.0mm Max. height SMD Power Inductor for high frequency application.
- Inductance range from 0.20uH to 4.7uH.
- High saturation current characteristics by distributed gapped metal dust core.
- Ideal for portable device, computers servers, storage device, workstations, VGA card, 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 + 150°C.



2. Electrical Characteristics:

ITG Part Number	OCL (uH) ±20%	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (AMP)	Isat1 (Amp)	Isat2 (Amp)	Size Code
SM2011-R20MHF	0.20	4.2	4.5	15.0	21.0	26.5	S3
SM2011-R33MHF	0.33	5.3	5.58	13.7	19.0	24.0	S1
SM2011-R47MHF	0.47	6.7	7.04	12.2	16.0	19.0	S1
SM2011-R68MHF	0.68	11.0	12.0	8.5	14.0	18.0	S2
SM2011-1R0MHF	1.00	13.0	14.0	7.0	11.0	14.0	S2
SM2011-1R2MHF	1.20	15.0	16.0	6.5	10.5	13.5	S2
SM2011-1R5MHF	1.50	20.0	25.0	6.0	10.0	11.0	S2
SM2011-2R2MHF	2.20	29.0	35.0	5.5	9.0	10.0	S2
SM2011-3R3MHF	3.30	34.0	38.0	5.0	7.0	9.0	S1
SM2011-4R7MHF	4.70	59.0	63.9	3.5	4.1	6.0	S1

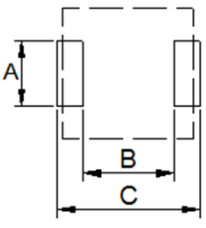
3. Mechanical Dimensions (unit: mm):



Size Code	A ± 0.25	B ± 0.25	C Max.	D ± 0.30	E ± 0.30
S1	5.49	5.18	3.00	2.00	1.02
S2	5.00	4.70	3.00	2.00	1.0
S3	5.10	4.70	3.00	2.00	1.0

Recommended PCB Layout
(Unit mm)

A = 2.70
B = 2.15
C = 6.00



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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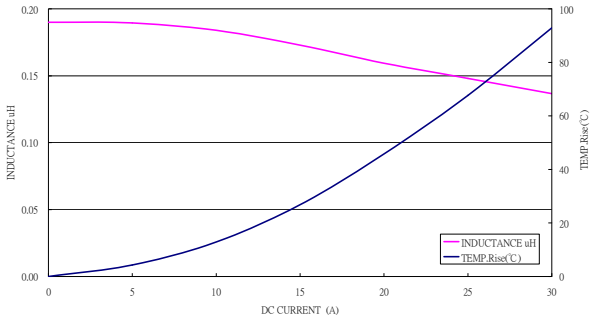
Revised A: 05/31/13

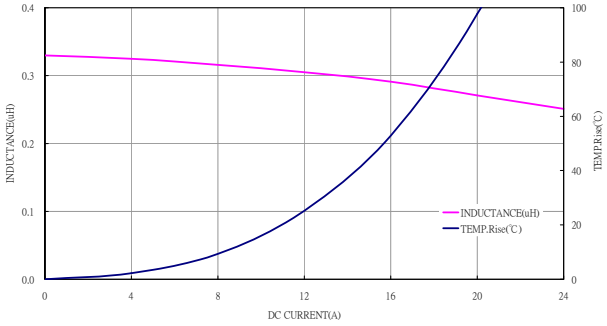
SM2011 Series

4. Inductance vs. Current vs. Temperature

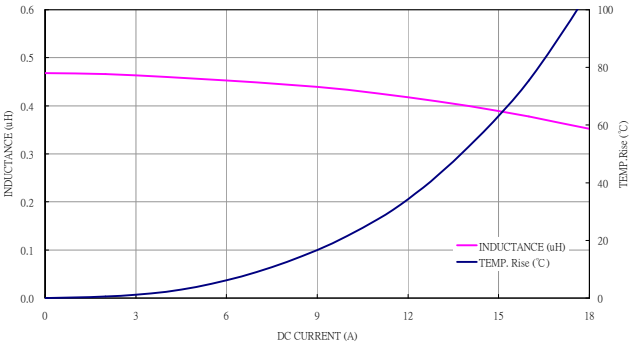
SM2011-R20MHF



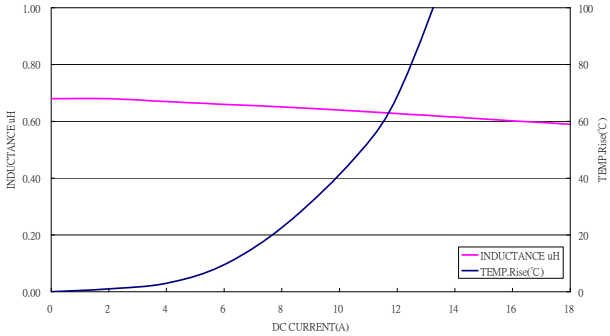
SM2011-R33MHF



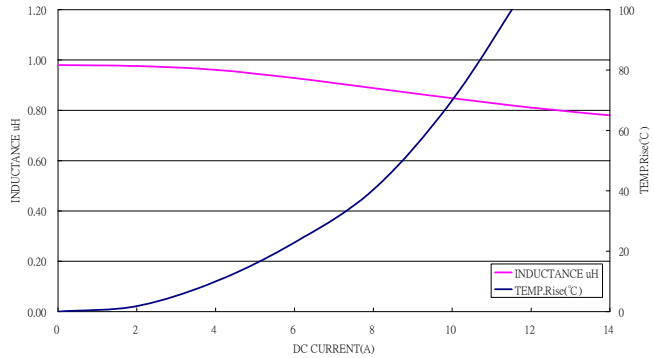
SM2011-R47MHF



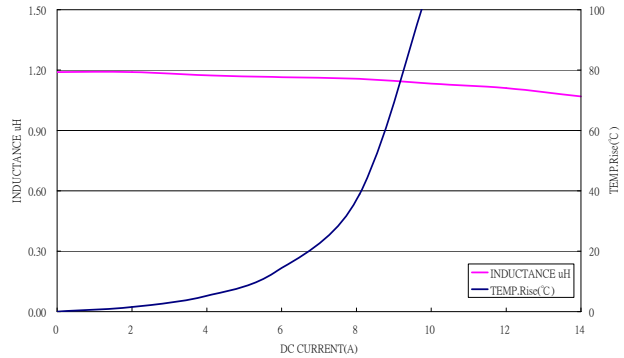
SM2011-R68MHF



SM2011-1R0MHF



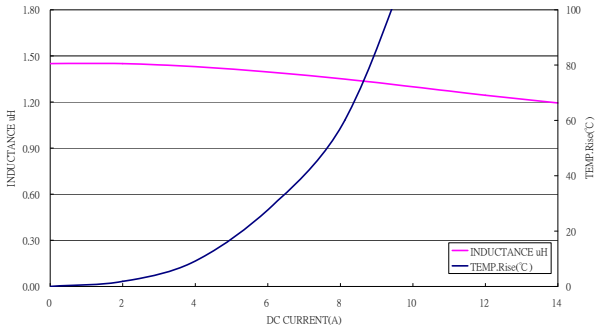
SM2011-1R2MHF



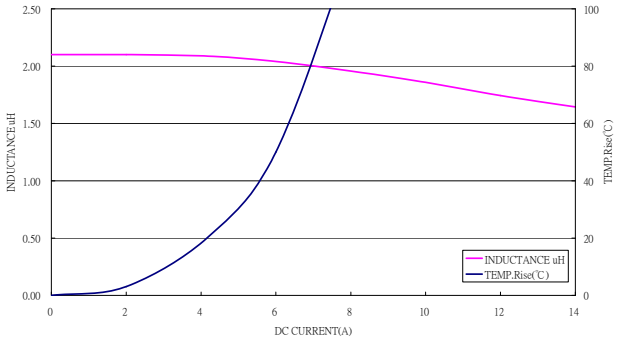
SM2011 Series

4. Inductance vs. Current vs. Temperature

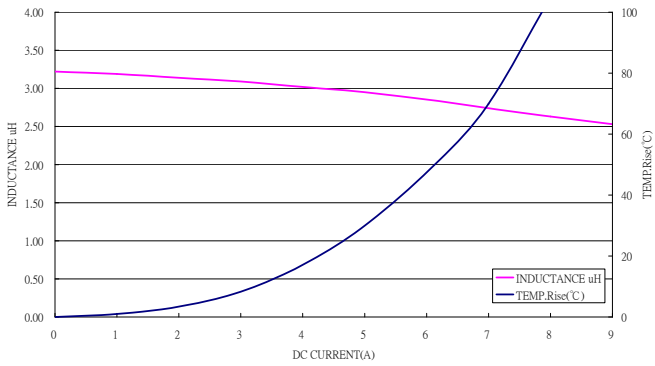
SM2011-1R5MHF



SM2011-2R2MHF



SM2011-3R3MHF



SM2011-4R7MHF