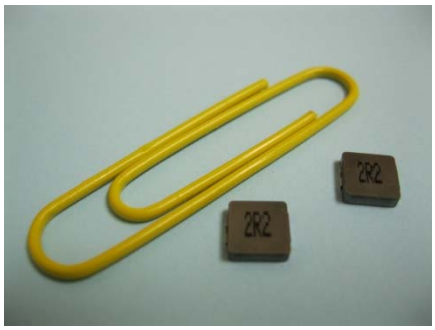
SM2507 Series

1. Features:

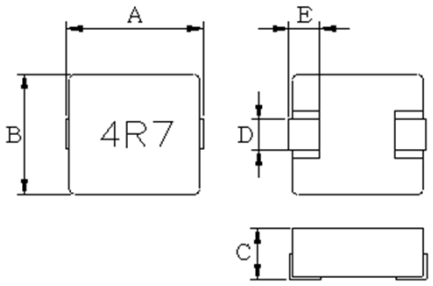
- 7.2x6.8 mm foot Print, 1.8mm Max. height SMD Power Inductor for high frequency application.
- Inductance range from 0.10uH to 10uH.
- High saturation current characteristics by distributed gapped metal dust core.
- Ideal for portable device, PAD, Notebook, computers servers, storage device, workstations, 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:

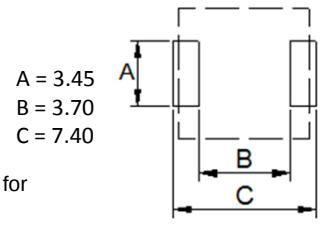
ITG Part Number	OCL (uH) ±20%	DCR (mΩ) Typ.	DCR (mΩ) Max.	Irms (AMP)	Isat1 (Amp)	Isat2 (Amp)	Size Code
SM2507-R10MHF	0.10	3.0	3.5	18.00	35.00	40.00	S1
SM2507-R15MHF	0.15	4.7	5.2	15.00	30.00	38.00	S1
SM2507-R22MHF	0.22	5.3	5.7	14.00	22.00	26.00	S1
SM2507-R33MHF	0.33	6.6	7.0	12.00	16.50	22.00	S1
SM2507-R47MHF	0.47	8.4	9.3	11.00	15.00	20.00	S1
SM2507-R68MHF	0.68	12.7	13.9	9.00	13.00	18.00	S1
SM2507-R82MHF	0.82	13.8	15.9	8.00	12.00	17.00	S1
SM2507-1R0MHF	1.00	17.5	18.3	7.00	10.00	14.00	S1
SM2507-1R5MHF	1.50	32.6	34.0	4.00	9.00	12.00	S1
SM2507-2R2MHF	2.20	40.3	46.0	3.75	8.00	11.00	S1
SM2508-3R3MHF	3.30	56.2	60.1	3.25	7.00	10.00	S1
SM2507-4R7MHF	4.70	76.6	78.0	3.00	6.00	8.00	S1

3. Mechanical Dimensions (unit: mm):



Size Code	A ± 0.38	B ± 0.25	C Max.	D ± 0.30	E ± 0.30
S1	6.86	6.47	1.80	3.00	1.30

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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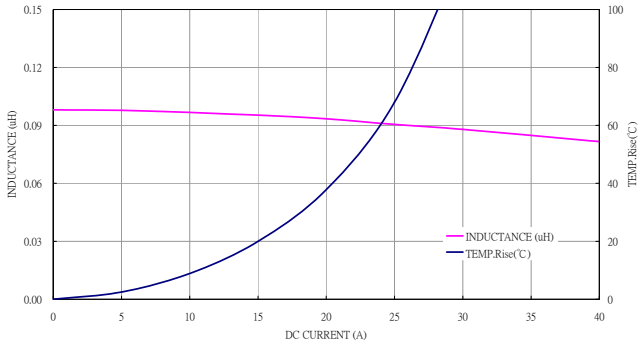
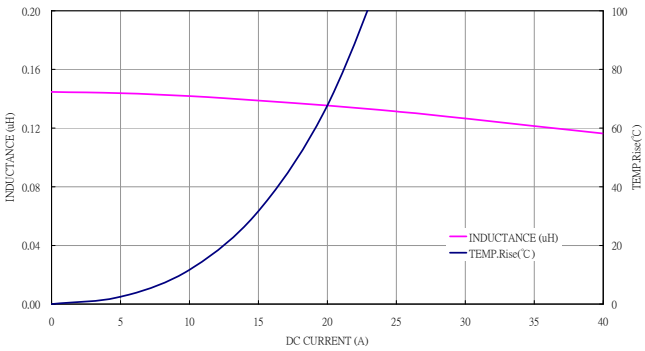
4. Inductance vs. Current vs. Temperature

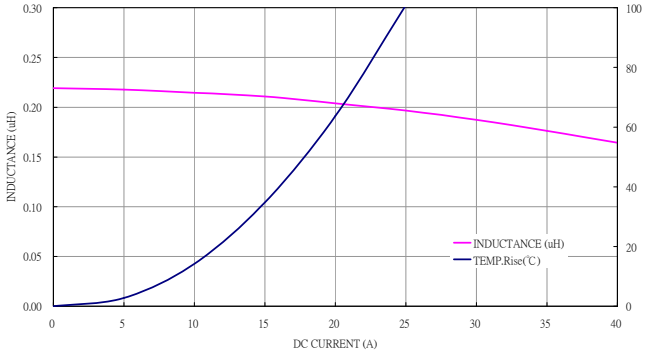
SM2507-R10MHF



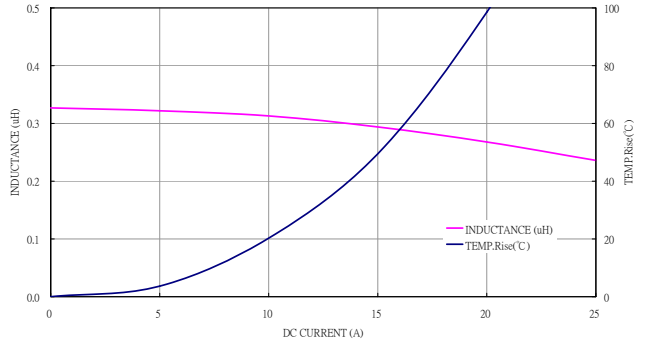
SM2507-R15MHF



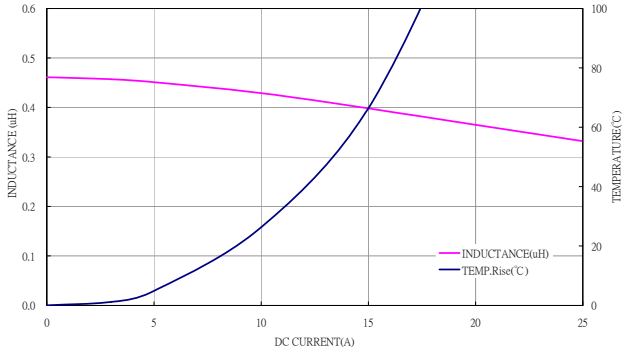
SM2507-R22MHF



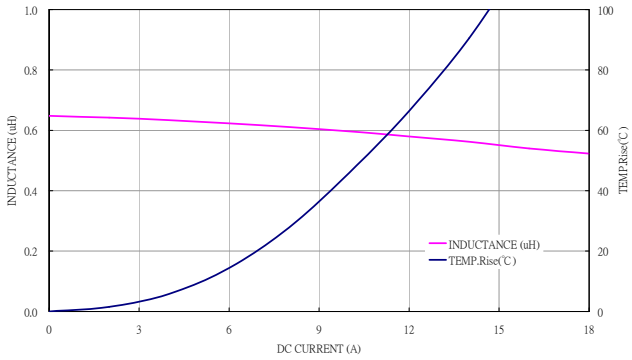
SM2507-R33MHF



SM2507-R47MHF



SM2507-R68MHF



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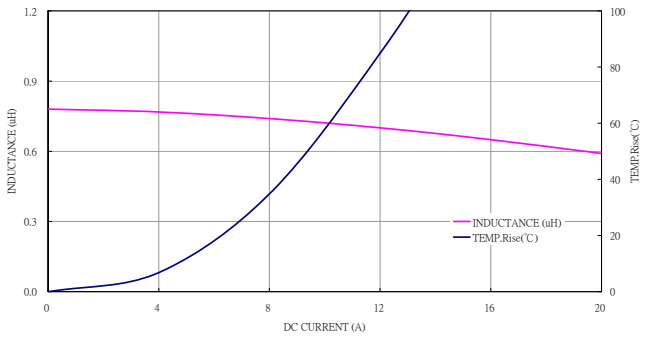
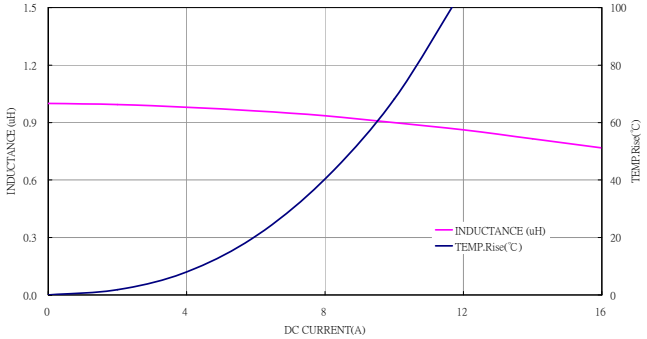
4. Inductance vs. Current vs. Temperature

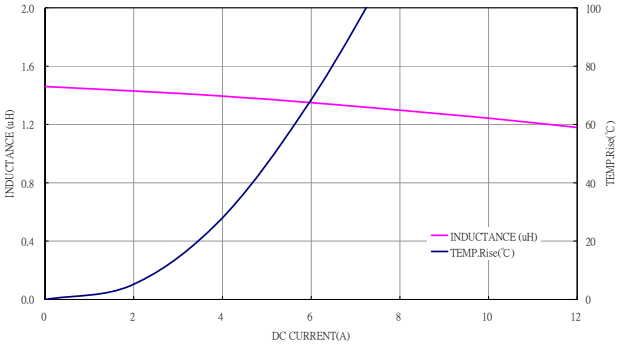
SM2507-R82MHF



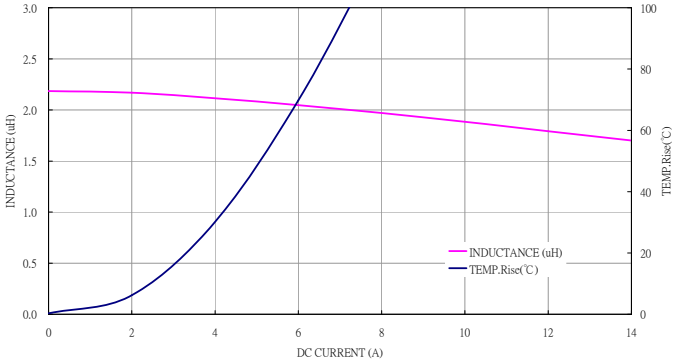
SM2507-1R0MHF



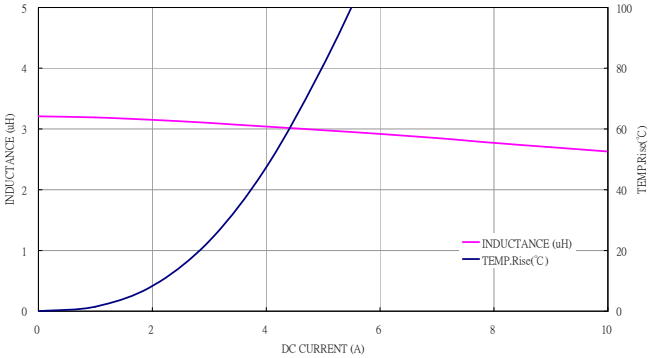
SM2507-1R5MHF



SM2507-2R2MHF



SM2507-3R3MHF



SM2507-4R7MHF