



MP322512A Series



1. Features:

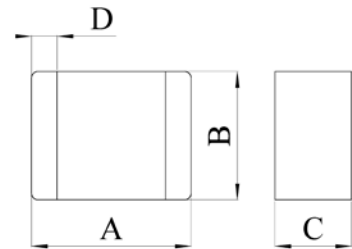
- 1210 Foot Print (3.2x2.5mm),
- 1.2mm Max. height SMD Power Inductor.
- Inductance range from 0.33uH to 3.3uH.
- High saturation current characteristics in a compact package.
- Ideal for portable device, PAD, Notebook, smart phone & High Density DC to DC converter Board.
- Max. withstand voltage 25VDC.
- Working Frequency up to 5Mhz.
- Tape & Reel Quantity: 3,000 piece per 6 inches reel.
- Operating Temperature Range -40°C to + 85°C.



2. Electrical Characteristics:

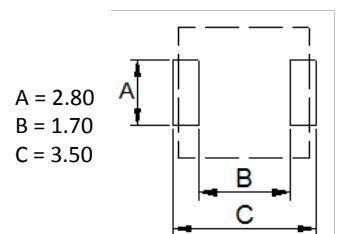
ITG Part Number	OCL (uH) ±30%	DCR (mΩ) Typ.	DCR (mΩ) Max.	I _{rms} (AMP)	I _{sat1} (Amp)
MP322512A-R33NHF	0.33	21	26	4.50	7.00
MP322512A-R47NHF	0.47	25	31	3.70	5.80
MP322512A-1R0NHF	1.00	38	46	3.10	3.70
MP322512A-1R5NHF	1.50	52	62	2.60	3.30
MP322512A-2R2NHF	2.20	95	106	2.30	2.70
MP322512A-3R3NHF	3.30	120	132	2.00	2.40

3. Mechanical Dimensions (unit: mm):



A ±	B ±	C	D ±
0.20	0.20	Max.	0.20
3.20	2.50	1.20	0.60

Recommended PCB Layout (Unit mm)



Notes:

1. Open Circuit Inductance(OCL), L @ I_{rms} and L @ I_{sat} are measured at 100KHz, 1.0V, (T_a=25°C).
2. I_{sat1}: DC current that causes inductance to drop approximately by 30% from OCL.
3. I_{rms}: 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 85°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.

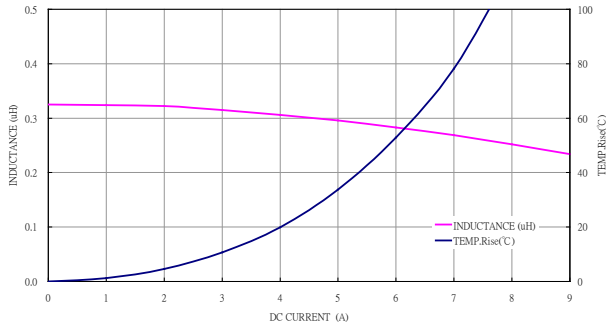


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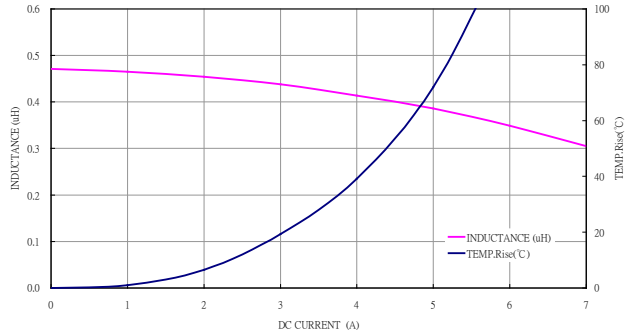


4. Inductance vs. Current vs. Temperature

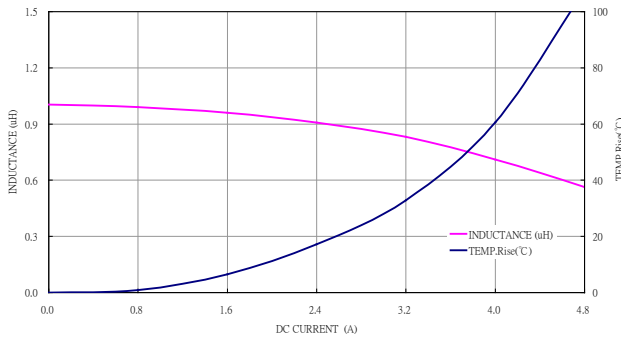
MP322512A-R33NHF



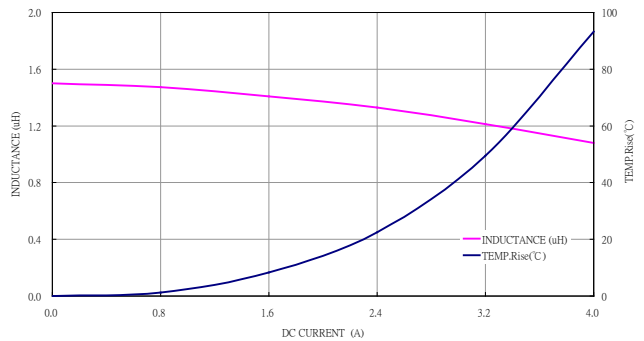
MP322512A-R47NHF



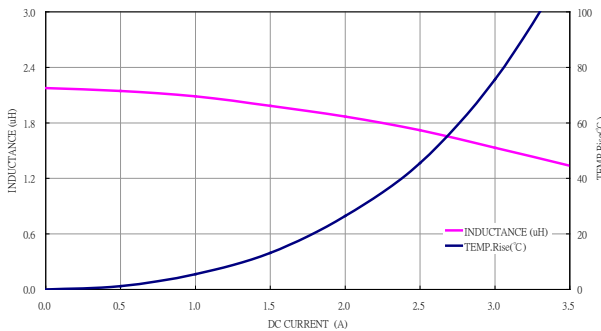
MP322512A-1R0NHF



MP322512A-1R5NHF



MP322512A-2R2NHF



MP322512A-3R3NHF

