Low Profile, High Current Shielded Inductors

TL5050SG

(13.2 x 12.9 x 3.5mm)

FEATURES:

- Lowest height (3.5mm) in this package footprint
- Operating temperature range - 55 °C to + 125 °C
- Frequency range up to 5.0 MHz
- Lowest DCR/μH, in this package size
- Handles high transient current spikes without saturation
- Ultra low buzz noise, due to composite construction

APPLICATIONS:

- PDA/notebook/desktop/server applications
- High current POL converters
- Low profile, high current power supplies
- Battery powered devices
- DC/DC converters in distributed power systems
- DC/DC converter for Field Programmable Gate Array(FPGA)

Specifications(25 °C):

Part Number (1)	L_0 INDUCTANCE (2) ±20% AT 100KHz,0.25V,0A(uH)	DCR TYP. 25°C (mΩ)	DCR MAX. 25°C (mΩ)	HEAT RATING CURRENT DC TYP. (A)(3)	SATURATION CURRENT DC TYP. (A)(4)
TL5050SG-R10M_	0.10	0.8	1.0	43.0	84.0
TL5050SG-R15M_	0.15	1.0	1.2	41.0	75.0
TL5050SG-R22M_	0.22	1.1	1.3	38.5	65.0
TL5050SG-R33M_	0.33	1.3	1.5	36.5	62.0
TL5050SG-R47M_	0.47	1.6	2.0	32.0	55.0
TL5050SG-R60M_	0.60	1.8	2.2	29.0	51.0
TL5050SG-R68M_	0.68	2.3	2.5	28.0	49.0
TL5050SG-R82M_	0.82	2.6	3.0	25.0	44.0
TL5050SG-1R0M_	1.00	3.3	3.5	24.0	40.0
TL5050SG-1R5M_	1.50	5.1	5.5	19.0	35.0
TL5050SG-1R8M_	1.80	6.5	7.0	16.5	30.0
TL5050SG-2R2M_	2.20	7.2	8.0	16.0	29.0
TL5050SG-3R3M_	3.30	11.0	12.0	12.0	27.0
TL5050SG-4R7M_	4.70	14.3	15.0	10.0	24.0
TL5050SG-5R6M_	5.60	18.3	19.0	9.5	19.0
TL5050SG-6R8M_	6.80	19.8	22.0	9.0	18.0
TL5050SG-8R2M_	8.20	24.8	28.0	8.5	16.0
TL5050SG-100M_	10.00	30.4	34.0	7.0	14.0

Tolerance: M = ±20%

Notes

1. Part numbering (See page 2)
2. Inductance measured at 0 (A) 25 °C
3. DC current (A) that will cause an approximate △T of 40°C
4. DC current (A) that will cause L_0 to drop approximately 20%
5. The part temperature (ambient + temp. rise) should not exceed 125°C under worst case operating conditions. Circuit design, component placement, PWB trace size and thickness,airflow and other cooling provisions all affect the part temperature, part temperature should be verified in the end application.

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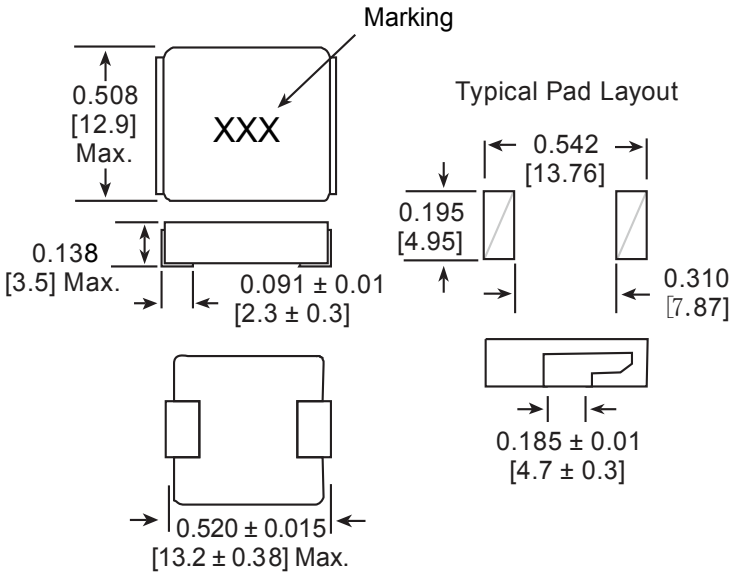
Marking : XXX = Inductance in "µH"

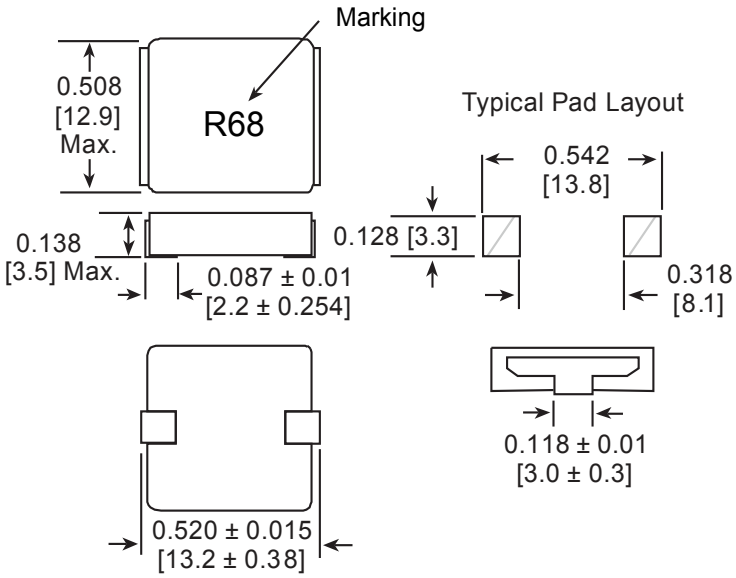
R10 = 0.10 µH
1R5 = 1.5 µH
151 = 150 µH

Dimensions : (inch/mm)

Inductance values 0.6 µH and below



Inductance values 0.68 µH and above



Part numbering:

TL5050SG-1R5MD

TL- Inductor code, 5050 - Series code, SG- SMD Green, 1R5 - 1.5µH, M - Tolerance =±20%, D- 13" reel

Packaging:

B= Less than full reel machine ready

D= 13" machine ready. EIA-481embossed plastic tape (500 parts)

Termination:

Matte tin over nickel over phospher bronze

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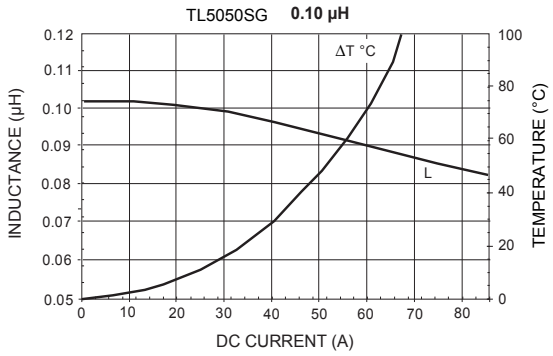
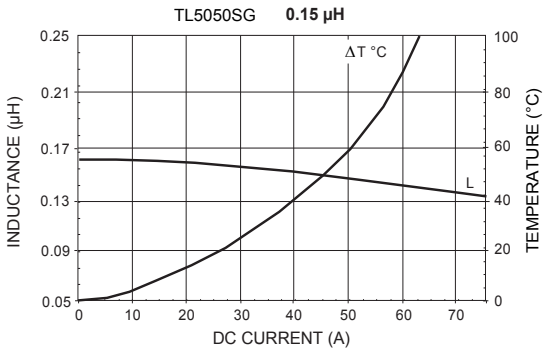
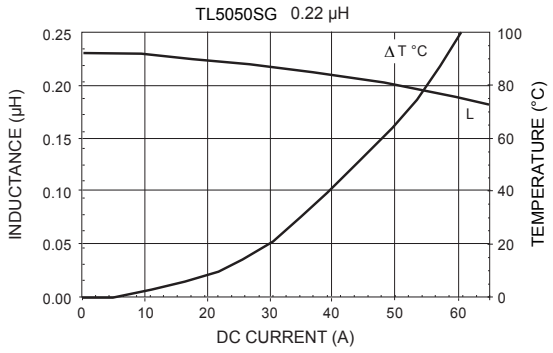
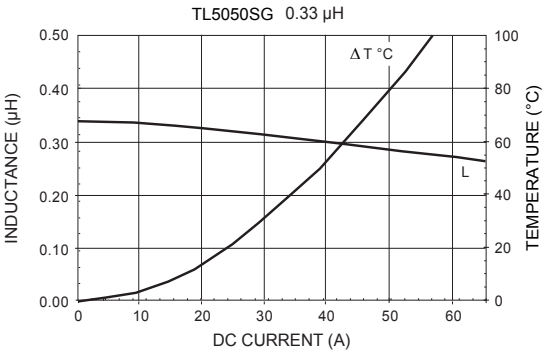
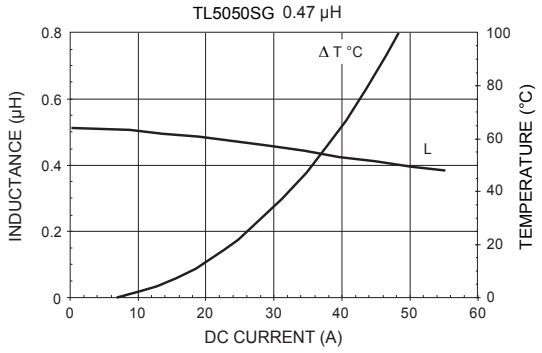
INDUCTANCE VS DC CURRENT

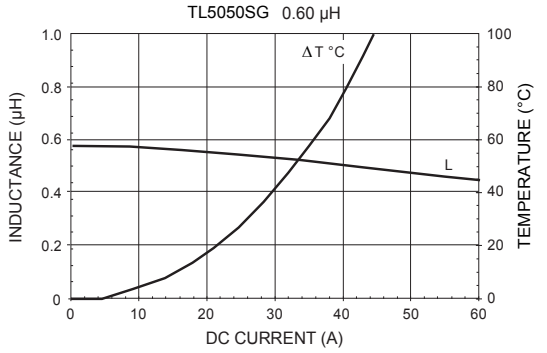


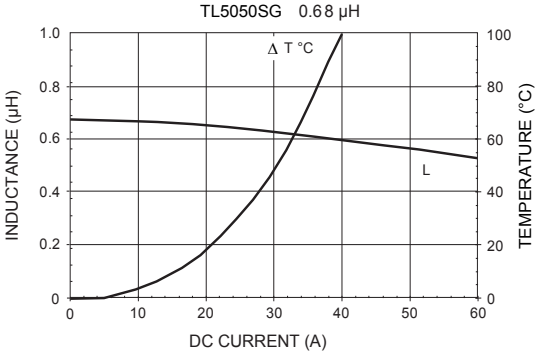


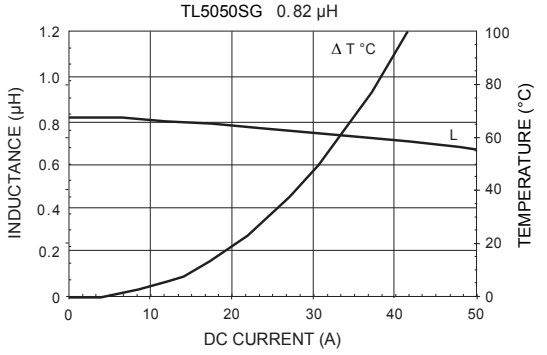












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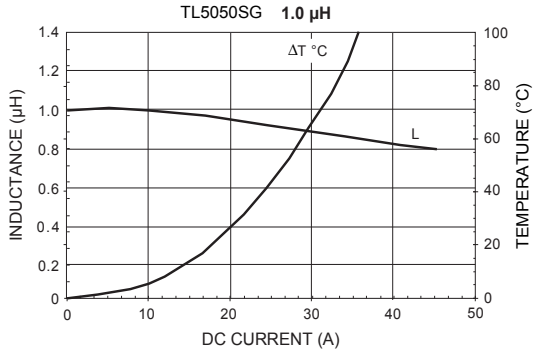

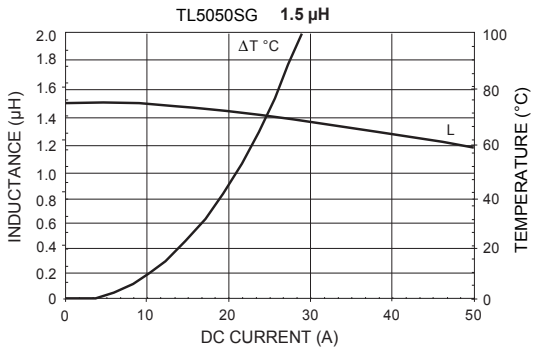

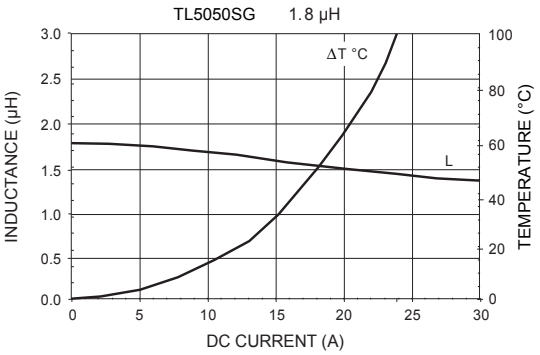

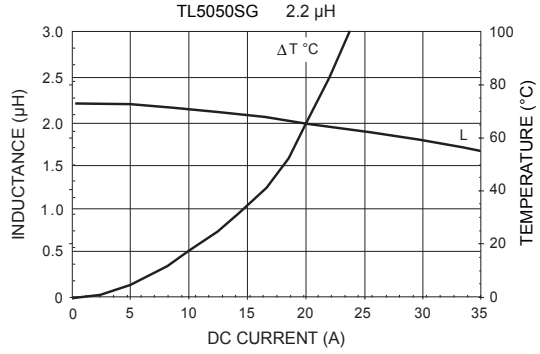

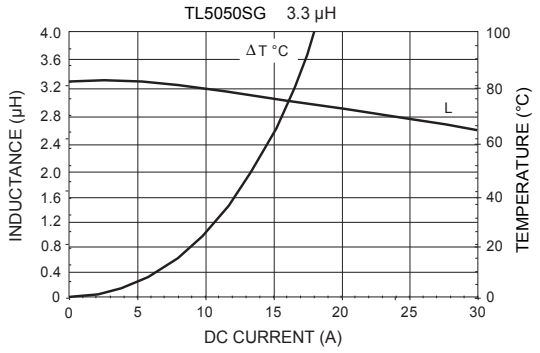

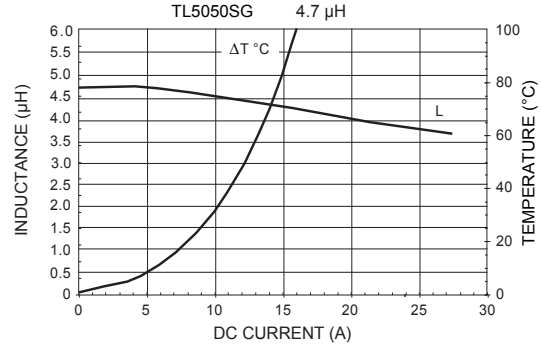

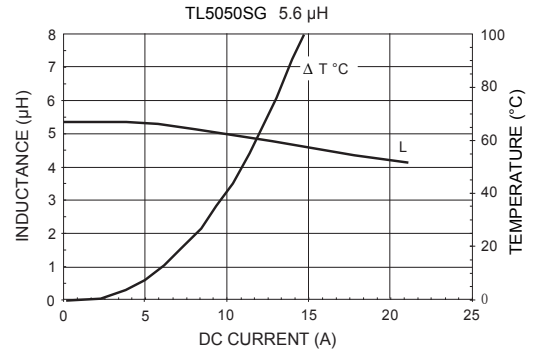

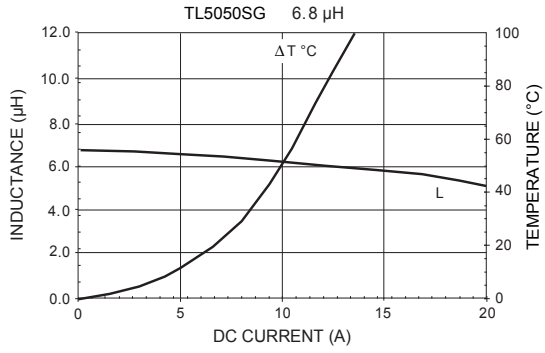

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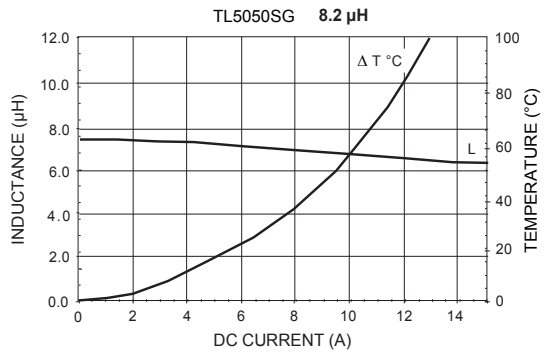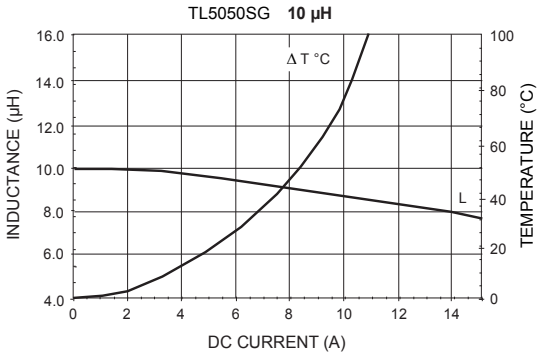
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