Shielded Power Inductors TL5015SG

FEATURES

- Very low DCR; excellent current handling capability
- Small footprint 5.0 x 5.0 x1.5 mm
- Operating temperature range: – 40°C to +85°C
  with Irms current, +85°C to +125°C with derated current
- Storage temperature range: –40°C to +125°C

Specifications(25 °C):

Part[1] Number	Inductance[2] ±20% (µH)	DCR[3] Max (Ohms)	SRF Typ (MHz)	Isat(A)[4] 10% drop	Isat(A)[4] 20% drop	Isat(A)[4] 30% drop	Irms(A)[5] 20°C rise	Irms(A)[5] 40°C rise
TL5015SG-1R0M_	1.0	0.050	183	3.6	3.8	3.9	1.90	2.65
TL5015SG-1R3M_	1.3	0.065	150	2.5	2.6	2.8	1.70	2.35
TL5015SG-1R8M_	1.8	0.075	128	2.6	2.8	2.9	1.50	2.15
TL5015SG-2R2M_	2.2	0.090	116	2.4	2.6	2.7	1.40	2.00
TL5015SG-3R3M_	3.3	0.125	88	1.9	2.0	2.0	1.30	1.80
TL5015SG-4R7M_	4.7	0.150	73	1.6	1.7	1.8	1.20	1.62
TL5015SG-5R6M_	5.6	0.175	67	1.6	1.6	1.6	1.10	1.45
TL5015SG-6R8M_	6.8	0.225	57	1.3	1.4	1.5	0.90	1.25
TL5015SG-8R2M_	8.2	0.280	49	1.3	1.3	1.4	0.85	1.05
TL5015SG-100M_	10	0.300	44	1.2	1.3	1.3	0.80	0.95
TL5015SG-120M_	12	0.350	40	1.0	1.1	1.2	0.75	0.84
TL5015SG-150M_	15	0.360	38	0.80	0.84	0.86	0.73	0.84
TL5015SG-180M_	18	0.550	35	0.75	0.77	0.80	0.70	0.83
TL5015SG-220M_	22	0.675	31	0.70	0.73	0.75	0.60	0.82
TL5015SG-330M_	33	0.750	24	0.55	0.59	0.60	0.50	0.70
TL5015SG-470M_	47	1.00	18	0.46	0.48	0.49	0.45	0.57
TL5015SG-560M_	56	1.13	17	0.40	0.43	0.45	0.40	0.52
TL5015SG-680M_	68	1.45	15	0.33	0.380	0.39	0.35	0.47
TL5015SG-101M_	100	1.95	12	0.30	0.33	0.34	0.30	0.42
TL5015SG-121M_	120	2.50	10	0.25	0.28	0.30	0.27	0.37
TL5015SG-151M_	150	3.40	9.3	0.23	0.25	0.26	0.25	0.33
TL5015SG-221M_	220	4.50	7.3	0.20	0.21	0.22	0.22	0.29
TL5015SG-331M_	330	7.40	5.7	0.15	0.17	0.18	0.17	0.22
TL5015SG-471M_	470	7.50	4.9	0.12	0.12	0.13	0.16	0.21
TL5015SG-561M_	560	8.50	4.3	0.100	0.11	0.12	0.14	0.190
TL5015SG-681M_	680	10.6	4.0	0.100	0.11	0.11	0.13	0.175
TL5015SG-102M_	1000	15.0	3.2	0.080	0.090	0.093	0.10	0.150
TL5015SG-152M_	1500	25.0	2.5	0.080	0.086	0.088	0.090	0.140
TL5015SG-182M_	1800	28.0	2.2	0.078	0.083	0.086	0.085	0.130
TL5015SG-222M_	2200	36.0	2.1	0.072	0.078	0.080	0.065	0.090
TL5015SG-332M_	3300	55.0	1.7	0.064	0.072	0.076	0.055	0.075
TL5015SG-472M_	4700	80.0	1.4	0.062	0.069	0.072	0.045	0.065

Tolerance: M = ±20%

Notes

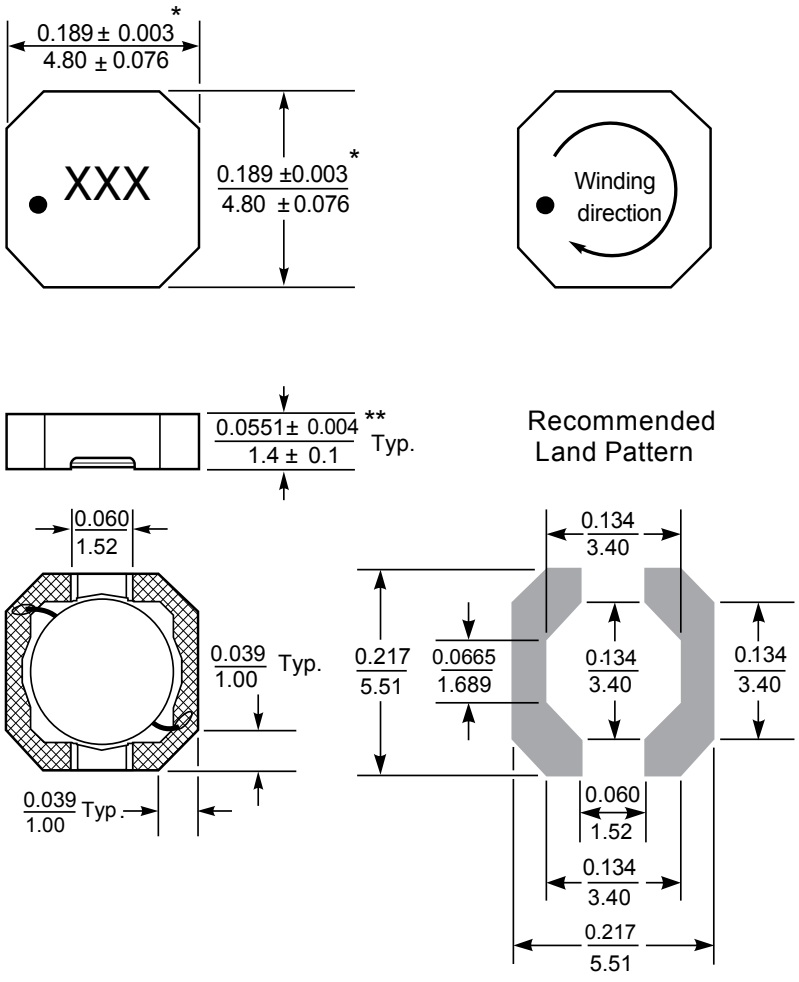
1. TL5015SG-101M_ (See part numbering details page 2)
2. Inductance tested at 100KHz, 0.1Vrms .
3. DCR measured on a micro-ohmmeter.
4. Isat is a DC current that causes the specified inductance drop from its original (no load) value.
5. Irms is a current that causes the specified temperature rise from 25°C ambient.

Shielded Power Inductors

TL5015SG

4.8 x 4.8 x 1.4mm

Dimensions : (inch/mm)



Marking :

XXX = Inductance in "µH"
R10 = 0.10 µH
1R5 = 1.5 µH
151 = 150µH

* Dimensions are of the case not including the termination.
For maximum overall dimensions including the termination, add 0.005 in / 0.13 mm.
Dimensions before mounting can be an additional 0.005 inch [0.13mm]

** For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part.

TL-5015SG-1R5MC

TL- Inductor code, 5015 - Series code, SG- SMD Green,, 1R5 - 1.5µH, M - Tolerance ±20%, C- 7" reel

Packaging:

C= 7" machine ready. EIA-481embossed plastic tape (1000 parts)

B= Less than full reel machine ready

D= 13" machine ready. EIA-481embossed plastic tape (3500 parts)

Termination:
Matte tin over nickel over phospher bronze

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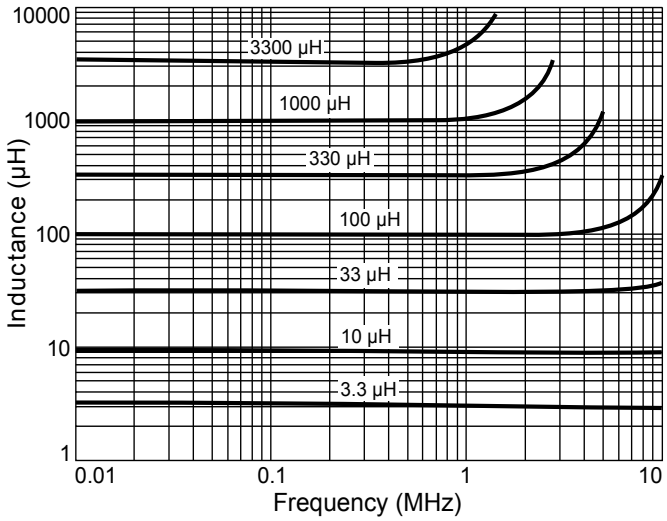
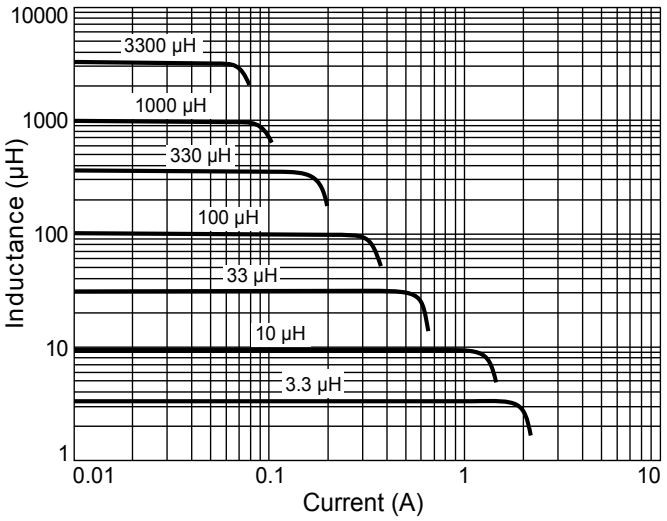
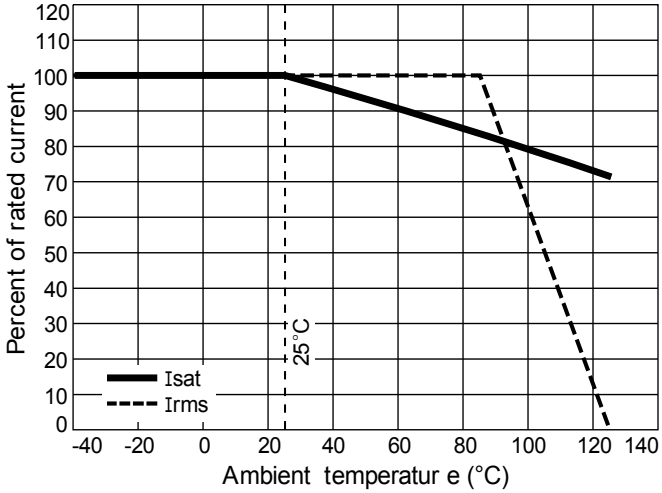
Typical L vs Frequency



Typical L vs Current



Typical Current Derating