NEW!

SMT Power Inductors – SD54 Series

- Rugged, cost-effective power inductors
- Excellent current handling; low DCR
- Values greater than 47 µH are 10% tolerance

Core material Ferrite

Terminations RoHS compliant tin-silver over tin over nickel over silver.

Weight 0.35 – 0.43 g

Ambient temperature –40°C to +85°C with Irms current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +85°C. Tape and reel packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 400/7″ reel; 1500/13″ reel; Plastic tape: 12 mm wide, 0.4 mm thick, 8 mm pocket spacing, 4.7 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

Part number[1]	Inductance[2] (µH)	DCR (mOhm) nom	DCR (mOhm) max	SRF typ[3] (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
SD54-103ML_	10 ±20%	71.5	78.6	28	2.0	2.3	2.4	1.7	2.3
SD54-123ML_	12 ±20%	80.2	88.2	26	1.8	2.0	2.2	1.6	2.2
SD54-153ML_	15 ±20%	94.0	103	23	1.5	1.8	1.9	1.5	2.1
SD54-183ML_	18 ±20%	103	113	21	1.4	1.6	1.8	1.4	2.0
SD54-223ML_	22 ±20%	119	130	19	1.3	1.5	1.6	1.3	1.8
SD54-273ML_	27 ±20%	134	147	18	1.2	1.4	1.4	1.2	1.7
SD54-333ML_	33 ±20%	150	165	16	1.1	1.2	1.3	1.2	1.6
SD54-393ML_	39 ±20%	195	214	13	1.0	1.1	1.2	1.0	1.4
SD54-473ML_	47 ±20%	222	244	12	0.92	1.0	1.1	0.97	1.3
SD54-563KL_	56 ±10%	251	276	11	0.83	0.96	1.0	0.92	1.3
SD54-683KL_	68 ±10%	335	368	9.3	0.76	0.88	0.95	0.80	1.1
SD54-823KL_	82 ±10%	379	416	8.4	0.69	0.80	0.85	0.74	1.1
SD54-104KL_	100 ±10%	503	553	7.4	0.62	0.72	0.77	0.64	0.88
SD54-124KL_	120 ±10%	579	636	7.0	0.56	0.66	0.71	0.58	0.80
SD54-154KL_	150 ±10%	654	719	6.3	0.51	0.60	0.64	0.57	0.77
SD54-184KL_	180 ±10%	874	961	5.5	0.46	0.53	0.57	0.49	0.67
SD54-224KL_	220 ±10%	996	1095	5.0	0.43	0.50	0.54	0.47	0.66

1. When ordering, please specify **packaging** code:

SD54-224KLC

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (400 parts per full reel).
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter C instead.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1500 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer or equivalent.
3. SRF measured using Agilent/HP 8753D network analyzer and Coilcraft SMD-D test fixture.
4. DC current at which the inductance drops the specified amount from its value without current.
5. Current that causes the specified rise from 25°C ambient.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
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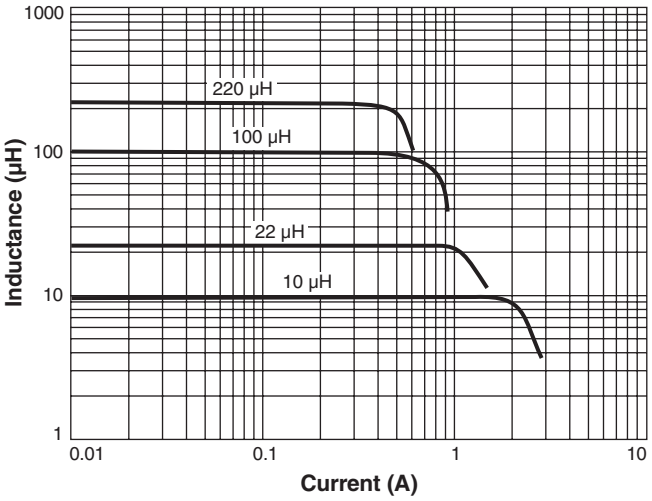
NEW!

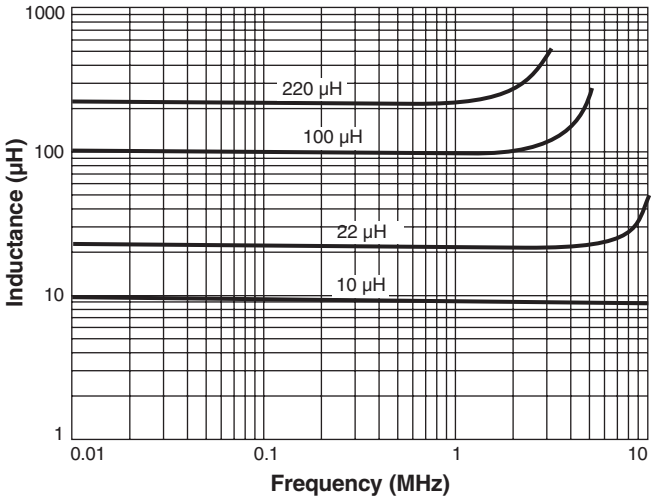
RoHS COMPLIANT

SMT Power Inductors – SD54 Series

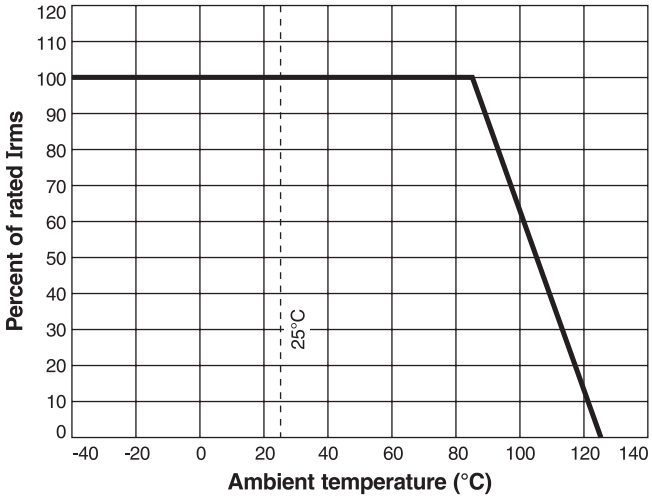
Typical L vs Current

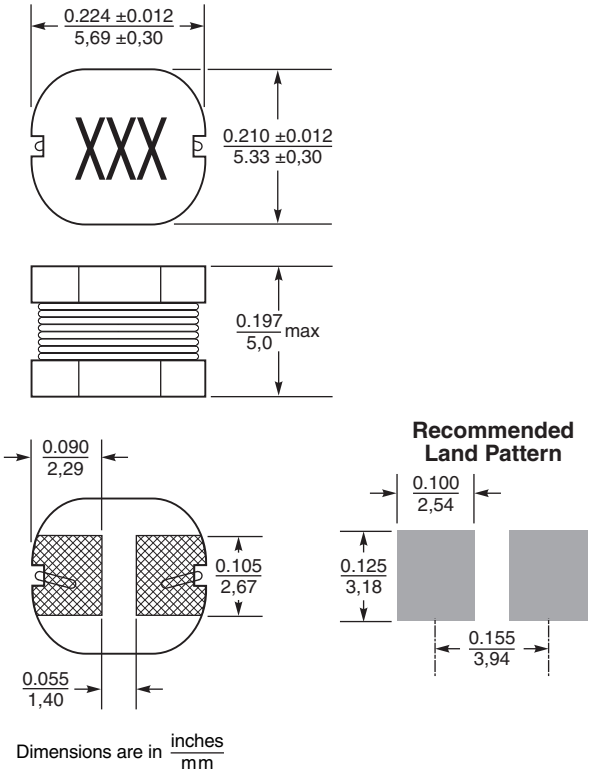


Typical L vs Frequency



Irms Derating





Dimensions are in inches / mm

Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
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