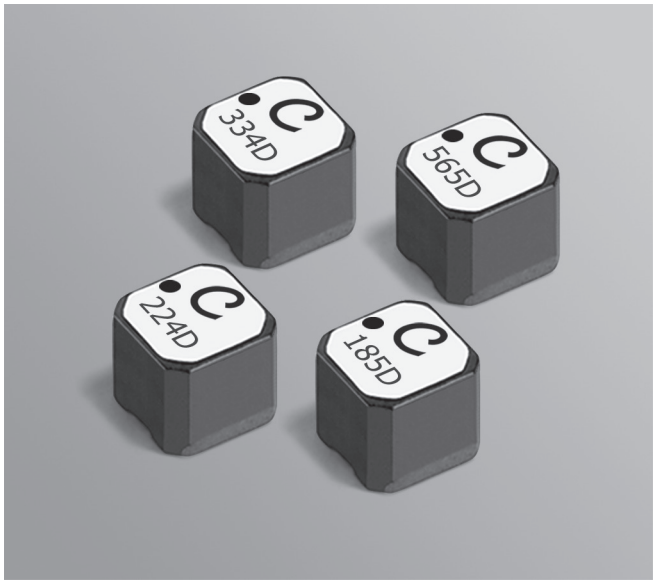
RoHS/ REACH COMPLIANT

Halogen Free

AEC Q200 +125°C

Shielded Power Inductors – LPS5050



- Very low DCR; excellent current handling
- High inductance values up to 10 mH
- AEC-Q200 qualified

Designer's Kit C493 contains 3 each of all values
Core material Ferrite
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Weight 226 – 244 mg
Ambient temperature –40°C to +125°C with (40°C rise) Irms current.
Maximum part temperature +165°C (ambient + temp rise). Derating.
Storage temperature Component: –40°C to +165°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)
Packaging 250/7″ reel; 1000/13″ reel Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 5.26 mm pocket depth
Recommended pick and place nozzle OD: 5 mm; ID: ≤ 2.5 mm
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] ±20% (µH)	DCR max[3] (Ohms)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
LPS5050-154MR_	150	0.555	6.3	0.235	0.260	0.280	0.60	0.82
LPS5050-224MR_	220	0.625	4.9	0.195	0.225	0.235	0.56	0.75
LPS5050-334MR_	330	0.935	4.2	0.165	0.185	0.195	0.47	0.63
LPS5050-474MR_	470	1.22	3.4	0.135	0.150	0.160	0.40	0.54
LPS5050-564MR_	560	1.51	3.2	0.125	0.145	0.150	0.35	0.48
LPS5050-684MR_	680	1.76	2.6	0.120	0.135	0.145	0.31	0.42
LPS5050-824MR_	820	2.20	2.2	0.088	0.107	0.115	0.28	0.38
LPS5050-105MR_	1000	2.90	2.2	0.086	0.102	0.110	0.27	0.36
LPS5050-155MR_	1500	4.40	1.7	0.070	0.082	0.088	0.21	0.30
LPS5050-185MR_	1800	4.55	1.7	0.060	0.073	0.080	0.20	0.28
LPS5050-225MR_	2200	5.55	1.4	0.056	0.066	0.072	0.19	0.25
LPS5050-335MR_	3300	8.60	1.2	0.054	0.060	0.064	0.15	0.20
LPS5050-475MR_	4700	12.10	1.0	0.044	0.051	0.054	0.13	0.17
LPS5050-565MR_	5600	15.30	0.89	0.036	0.042	0.046	0.12	0.16
LPS5050-685MR_	6800	19.15	0.77	0.034	0.040	0.043	0.11	0.14
LPS5050-825MR_	8200	21.50	0.71	0.028	0.035	0.038	0.10	0.13
LPS5050-106MR_	10000	23.25	0.62	0.026	0.030	0.034	0.09	0.12

1. Please specify **termination** and **packaging** codes:

LPS5050-106MRC

Termination: **R** = RoHS compliant matte tin over nickel over silver. Special order, added cost: **Q** = RoHS tin-silver-copper (95.5/4/0.5) or **P** = non-RoHS tin-lead (63/37).

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (750 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge)

D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1000 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4192A impedance analyzer or equivalent.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 8753ES or equivalent.
5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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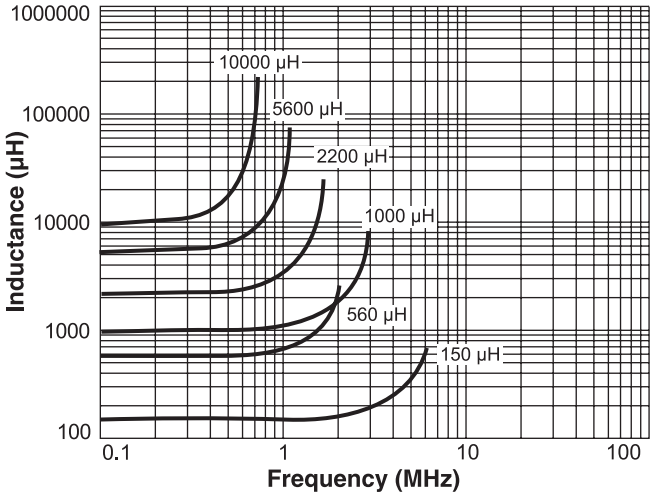
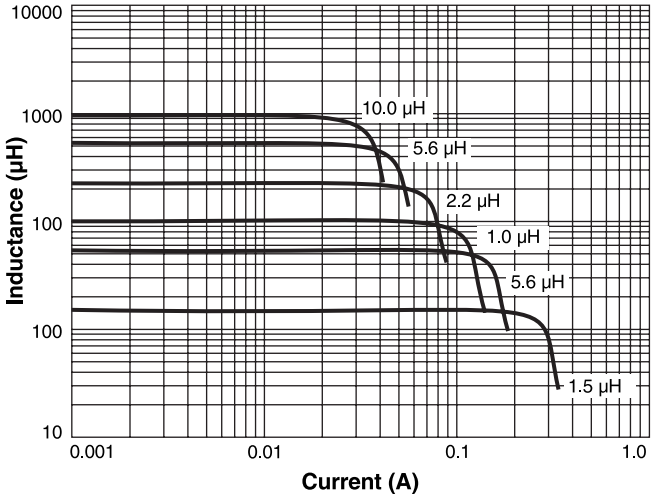
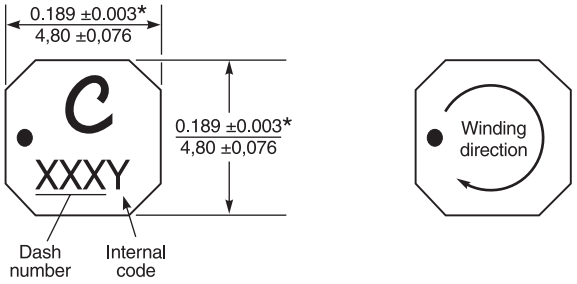
Shielded Power Inductors – LPS5050 Series

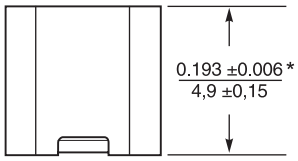
Typical L vs Frequency

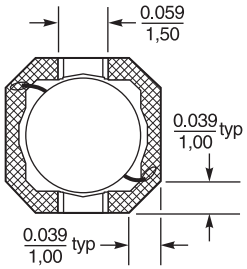


Typical L vs Current

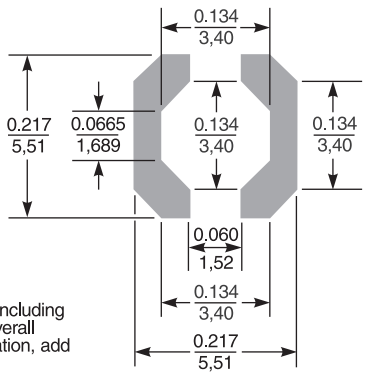








Recommended Land Pattern



* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0,13 mm).

Dimensions are in inches / mm

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