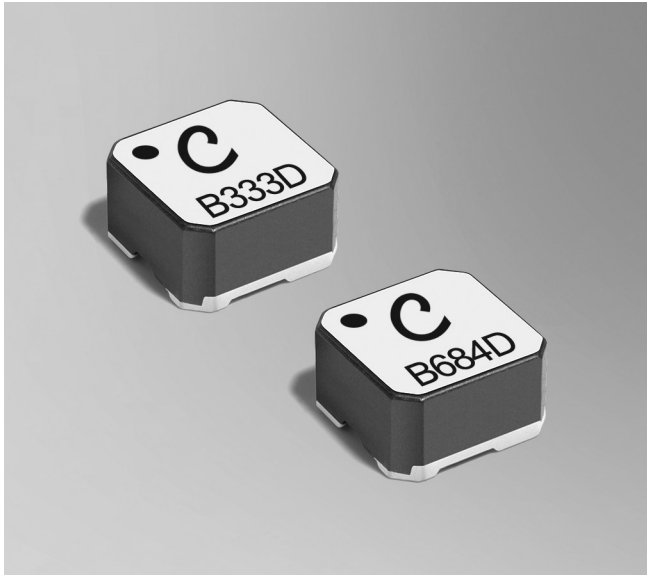


Shielded Power Inductors LPS8045B



- Inductance values from 6.8 to 1000 μ H
- Low DCR; excellent current handling

Core material Ferrite

Weight 0.88 – 1.1 g

Environmental RoHS compliant, halogen free

Terminations RoHS compliant matte tin over nickel over silver.
Other terminations available at additional cost.

Ambient temperature -40°C to $+85^{\circ}\text{C}$ with (40°C rise) Irms current.

Maximum part temperature $+125^{\circ}\text{C}$ (ambient + temp rise). [Derating](#).

Storage temperature Component: -40°C to $+125^{\circ}\text{C}$.

Tape and reel packaging: -40°C to $+80^{\circ}\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^{\circ}\text{C}$, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}\text{C}$ / 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 250/7" reel; 1000/13" reel; Plastic tape: 16 mm wide, 0.28 mm thick, 12 mm pocket spacing, 4.83 mm pocket depth

Recommended pick and place nozzle OD: 8 mm; ID: 4 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 $\pm 20\%$ (μ H)	DCR (Ohms)		SRF typ (MHz)	Isat (A) ³			Irms (A) ⁴	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
LPS8045B-682MR_	6.8	0.059	0.075	63	3.6	3.9	4.0	1.80	2.40
LPS8045B-103MR_	10	0.073	0.090	49	2.8	3.2	3.3	1.55	2.15
LPS8045B-153MR_	15	0.092	0.110	23	2.5	2.7	2.7	1.35	1.85
LPS8045B-223MR_	22	0.102	0.130	21	2.0	2.3	2.4	1.25	1.75
LPS8045B-333MR_	33	0.121	0.145	12	1.8	2.0	2.1	1.20	1.60
LPS8045B-473MR_	47	0.153	0.179	10	1.6	1.7	1.8	1.10	1.50
LPS8045B-683MR_	68	0.193	0.223	8.7	1.2	1.3	1.4	0.95	1.35
LPS8045B-104MR_	100	0.297	0.342	6.5	1.0	1.1	1.1	0.78	1.10
LPS8045B-154MR_	150	0.379	0.442	5.0	0.88	0.93	0.95	0.70	0.95
LPS8045B-224MR_	220	0.564	0.662	4.3	0.70	0.74	0.77	0.60	0.82
LPS8045B-334MR_	330	0.834	0.950	3.0	0.52	0.58	0.61	0.48	0.65
LPS8045B-474MR_	470	1.28	1.45	2.5	0.43	0.48	0.50	0.39	0.53
LPS8045B-684MR_	680	1.88	2.23	2.2	0.33	0.39	0.43	0.32	0.44
LPS8045B-105MR_	1000	2.92	3.22	1.3	0.31	0.34	0.36	0.23	0.32

1. When ordering, please specify **termination** and **packaging** codes:

LPS8045B-105MR**C**

Termination: **R** = RoHS compliant matte tin over nickelover 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 (250 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 (1000 parts per full reel).

2. Inductance at 100 kHz, 0.1 Vrms, 0 Adc.

3. DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information](#).

4. 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](#).

5. Electrical specifications at 25°C .

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



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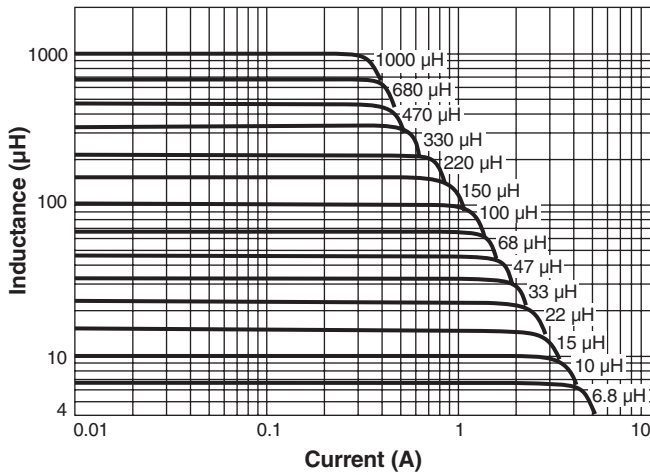
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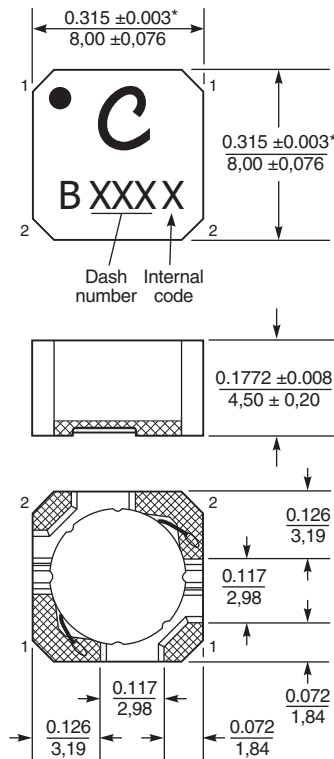
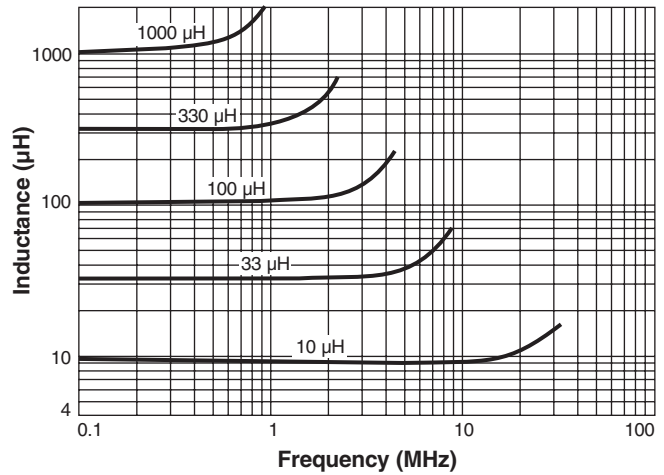


LPS8045B Shielded Power Inductors

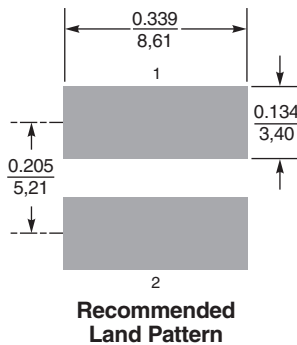
L vs Current



Typical L vs Frequency



* 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 $\frac{\text{inches}}{\text{mm}}$



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