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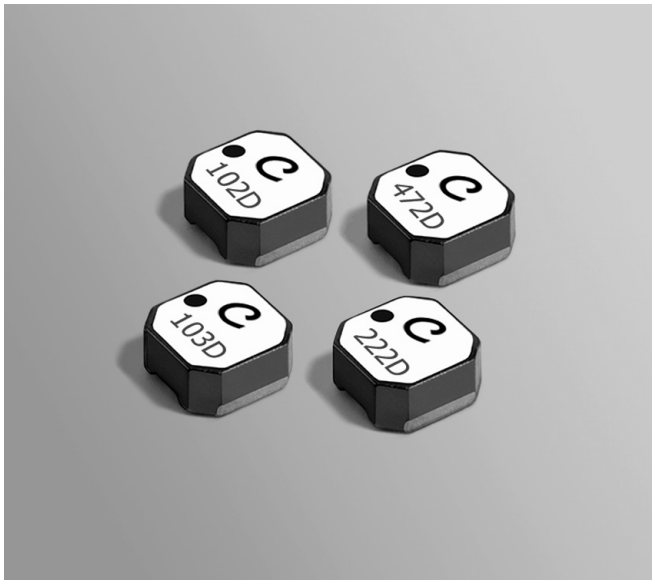
LPS4018-103MRC

Shielded Power Inductors – LPS4018

RoHS/ REACH COMPLIANT

Halogen Free

AEC Q200 +125°C



- Very low DCR; excellent current handling
- 4.0 × 4.0 mm footprint; less than 1.8 mm tall
- AEC-Q200 Grade 1 (–40°C to +125°C)

Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Weight 54 – 100 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 1000/7″ reel; 3500/13″ reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.9 mm pocket depth
Recommended pick and place nozzle OD: 4 mm; ID: ≤ 2 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] (µH)	DCR max[3] (Ohms)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	20% drop	30% drop	Irms (A)[6] 20°C rise	40°C rise
LPS4018-561MR_	0.56 ±20%	0.033	250	4.8	5.2	5.3	1.9	2.8
LPS4018-102NR_	1.0 ±30%	0.042	180	3.8	3.9	4.0	1.8	2.5
LPS4018-222MR_	2.2 ±20%	0.070	90	2.7	2.8	2.9	1.5	2.0
LPS4018-332MR_	3.3 ±20%	0.080	75	1.9	2.0	2.0	1.4	1.9
LPS4018-472MR_	4.7 ±20%	0.125	65	1.8	1.9	1.9	1.3	1.8
LPS4018-682MR_	6.8 ±20%	0.150	50	1.2	1.3	1.3	1.0	1.5
LPS4018-103MR_	10 ±20%	0.200	40	1.1	1.2	1.3	0.90	1.25
LPS4018-153MR_	15 ±20%	0.260	32	0.86	0.91	0.94	0.80	1.12
LPS4018-183MR_	18 ±20%	0.270	27	0.78	0.83	0.85	0.70	1.00
LPS4018-223MR_	22 ±20%	0.360	26	0.74	0.80	0.83	0.65	0.90
LPS4018-333MR_	33 ±20%	0.420	20	0.58	0.64	0.68	0.55	0.80
LPS4018-473MR_	47 ±20%	0.650	16	0.51	0.55	0.56	0.45	0.68
LPS4018-683MR_	68 ±20%	0.950	13	0.41	0.45	0.46	0.40	0.56
LPS4018-104MR_	100 ±20%	1.40	10	0.34	0.36	0.37	0.35	0.50
LPS4018-124MR_	120 ±20%	1.60	9.0	0.31	0.33	0.34	0.30	0.45
LPS4018-154MR_	150 ±20%	2.00	8.0	0.27	0.29	0.30	0.28	0.40
LPS4018-184MR_	180 ±20%	2.50	7.5	0.24	0.26	0.27	0.26	0.36
LPS4018-224MR_	220 ±20%	3.70	6.5	0.21	0.225	0.235	0.20	0.30
LPS4018-334MR_	330 ±20%	5.90	5.5	0.18	0.19	0.20	0.17	0.23
LPS4018-474MR_	470 ±20%	7.80	4.5	0.14	0.16	0.17	0.15	0.20
LPS4018-564MR_	560 ±20%	10.0	4.0	0.13	0.14	0.15	0.14	0.18
LPS4018-684MR_	680 ±20%	11.5	3.5	0.12	0.13	0.14	0.12	0.16
LPS4018-824MR_	820 ±20%	14.0	2.9	0.11	0.12	0.13	0.10	0.14
LPS4018-105MR_	1000 ±20%	18.0	2.8	0.10	0.11	0.11	0.098	0.125

Coilcraft **Designer's Kit C392** contains samples of 0.56 µH to 33 µH parts (3 each) from LPS3008, LPS3010 and LPS3015. **Kit C401** contains samples of 0.56 µH to 33 µH parts (3 each) from LPS4012 and LPS4018. **Kit C402** contains samples of 220 µH to 2200 µH parts (3 each) from four series. For details of kit contents and to order, contact Coilcraft or visit **https://www.coilcraft.com/en-us/kits/**.

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

LPS4018-223MRC

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 (1000 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 (3500 parts per full reel).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A. Inductance at 1 MHz is the same for parts with SRF ≥10 MHz.
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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SPICE models
ON OUR WEB SITE

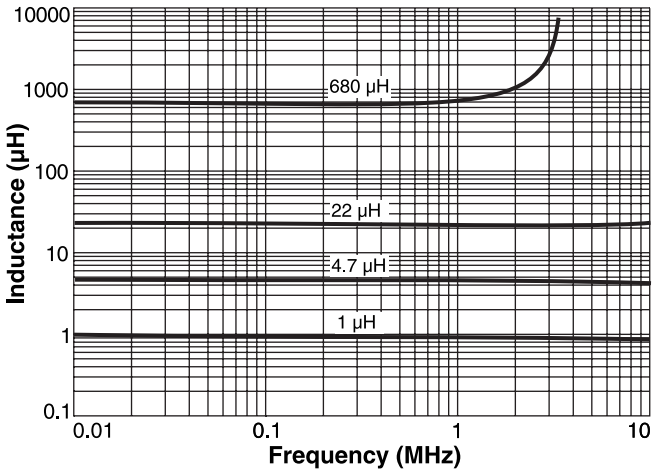
RoHS/ REACH COMPLIANT

Halogen Free

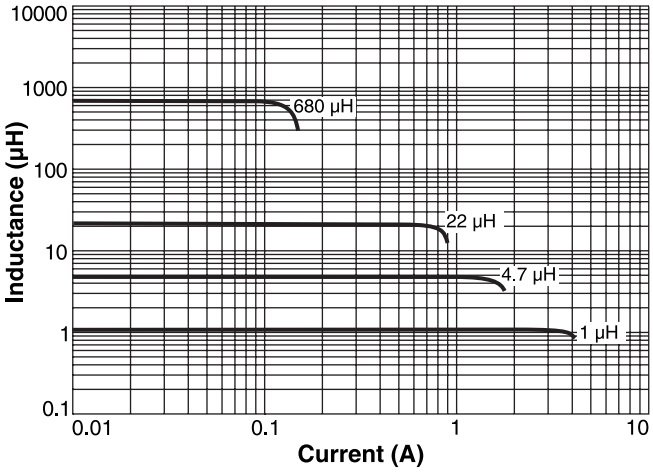
AEC Q200 +125°C

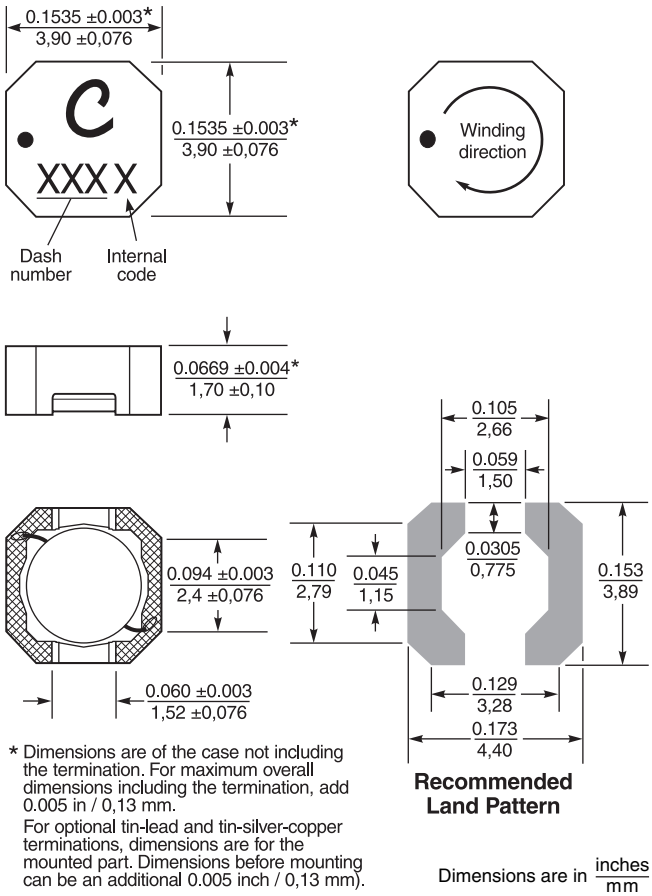
Shielded SMT Power Inductors – LPS4018 Series

Typical L vs Frequency



Typical L vs Current





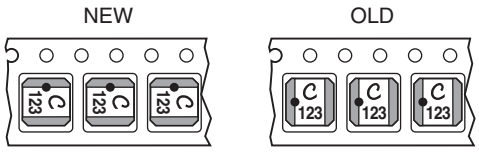
* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.
For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0,13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

Recommended Land Pattern

Dimensions are in inches / mm

Packaging 1000/7″ reel; 3500/13″ reel Plastic tape: 12 mm wide, 0.23 mm thick, 8 mm pocket spacing, 1.9 mm pocket depth

NOTE NEW PART ORIENTATION Parts are rotated 90° in the packaging tape compared to previous versions of this product.



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