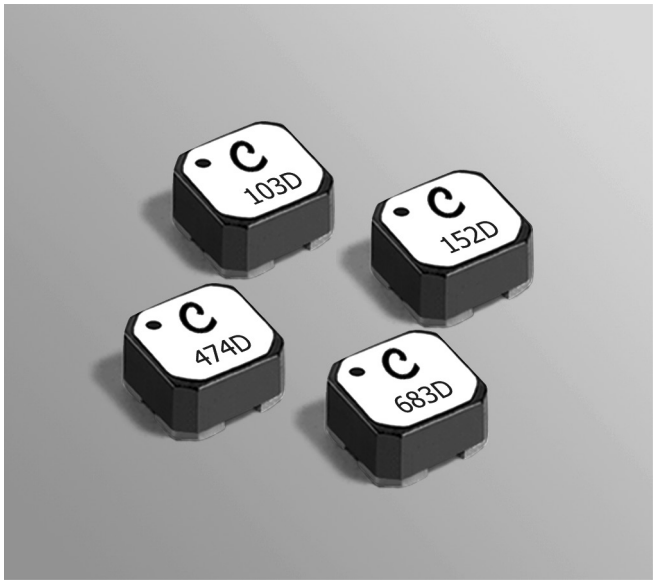
Common Mode Chokes – LPD5030



- Only 3.0 mm high and 5 mm square
- Ideal for use in both power line and signal line applications
- Common- and differential-mode filtering in a single device
- Up to 490 MHz differential mode cutoff frequency
- Can be used as coupled inductors for SEPIC applications
- AEC-Q200 Grade 3 qualified (–40°C to +85°C ambient)

Core material Ferrite

Weight 210 – 225 mg

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°C with Irms current.

Maximum part temperature +125°C (ambient + temp rise).

Storage temperature Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C

Winding to winding isolation 100 Vrms, one minute

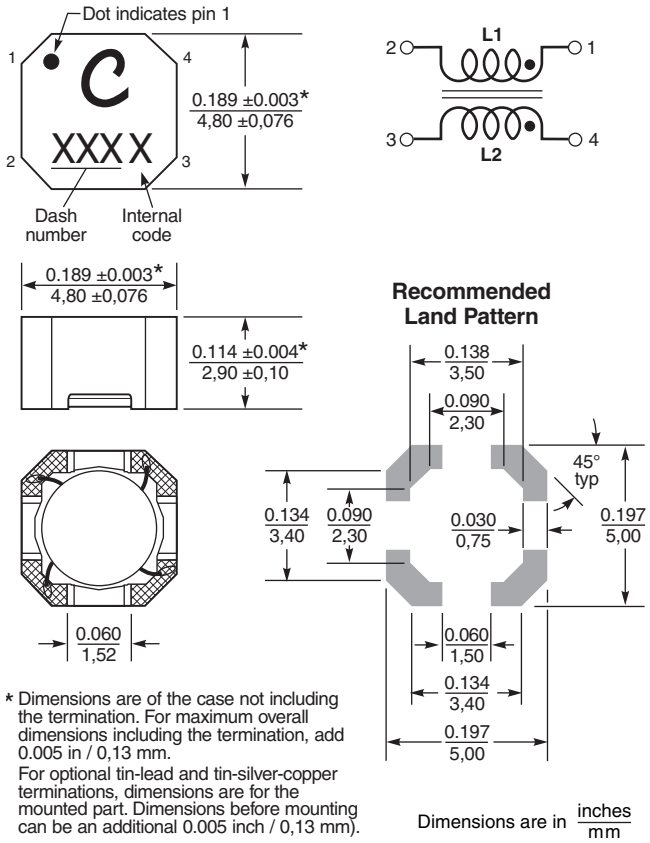
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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

Packaging 750/7″ reel; 2500/13″ reel Plastic tape: 12 mm wide, 0.32 mm thick, 8 mm pocket spacing, 3.1 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.



* 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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Document 1329-1 Revised 12/30/21

Common Mode Chokes – LPD5030 Series

Partnumber[1]	Common mode impedance max (kOhms)	Cutoff[2] frequency (MHz)	Inductance (µH)[3] min	Inductance (µH)[3] nom	DCR max[4] (Ohms)	Isolation (Vrms)	Irms (A)
LPD5030-571NR_	0.47 @ 250 MHz	490	0.399	0.570	0.031	100	2.30
LPD5030-781NR_	0.69 @ 210 MHz	400	0.546	0.780	0.038	100	2.25
LPD5030-102NR_	1.03 @ 150 MHz	380	0.800	1.00	0.042	100	2.20
LPD5030-152MR_	1.48 @ 110 MHz	260	1.20	1.50	0.048	100	2.05
LPD5030-222MR_	1.90 @ 93 MHz	260	1.76	2.20	0.067	100	1.95
LPD5030-332MR_	3.84 @ 66 MHz	210	2.64	3.30	0.077	100	1.70
LPD5030-472MR_	4.34 @ 53 MHz	190	3.76	4.70	0.111	100	1.40
LPD5030-562MR_	6.28 @ 45 MHz	140	4.48	5.60	0.125	100	1.35
LPD5030-682MR_	7.10 @ 43 MHz	140	5.44	6.80	0.159	100	1.20
LPD5030-103MR_	11.58 @ 36 MHz	110	8.00	10.0	0.210	100	1.05
LPD5030-153MR_	16.01 @ 26 MHz	87	12.0	15.0	0.298	100	0.85
LPD5030-223MR_	20.32 @ 21 MHz	65	17.6	22.0	0.452	100	0.70
LPD5030-333MR_	34.28 @ 19 MHz	67	26.4	33.0	0.565	100	0.60
LPD5030-473MR_	37.00 @ 13 MHz	50	37.6	47.0	0.806	100	0.50
LPD5030-683MR_	47.73 @ 11 MHz	42	54.4	68.0	1.13	100	0.43
LPD5030-104MR_	74.28 @ 8.7 MHz	34	80.0	100	1.79	100	0.33
LPD5030-154MR_	83.32 @ 7.2 MHz	27	120	150	2.43	100	0.28
LPD5030-224MR_	119.7 @ 5.8 MHz	20	176	220	3.30	100	0.24
LPD5030-334MR_	180.5 @ 4.3 MHz	18	264	330	5.36	100	0.18
LPD5030-474MR_	231.1 @ 3.6 MHz	16	376	470	7.51	100	0.15
LPD5030-684MR_	285.9 @ 3.2 MHz	13	544	680	10.8	100	0.13
LPD5030-105MR_	355.2 @ 2.5 MHz	11	800	1000	16.5	100	0.10

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

LPD5030-105MRC

Termination: **R** = 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).

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.

D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2500 parts per full reel).

2 Frequency at which the differential mode attenuation equals –3 dB

3 Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.

4 DCR is for each winding.

5 Interwinding isolation (hipot) tested for one minute.

6 Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

9. Electrical specifications at 25°C.

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

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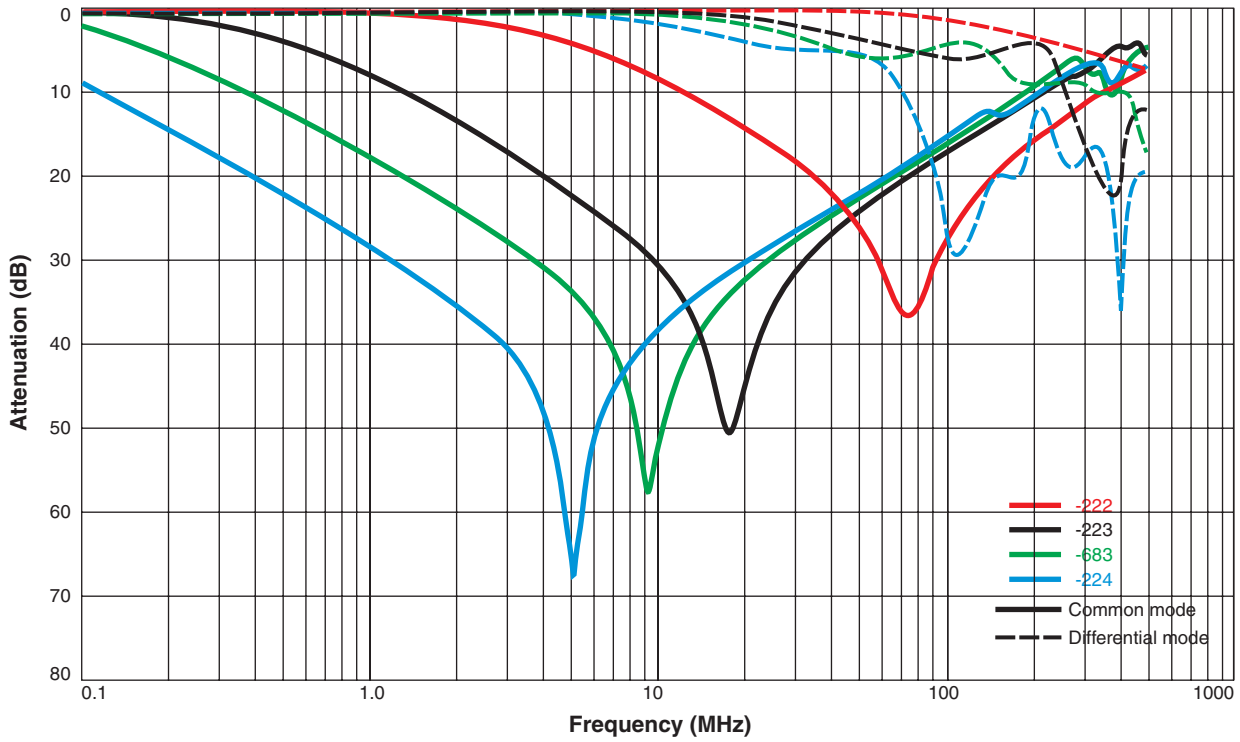
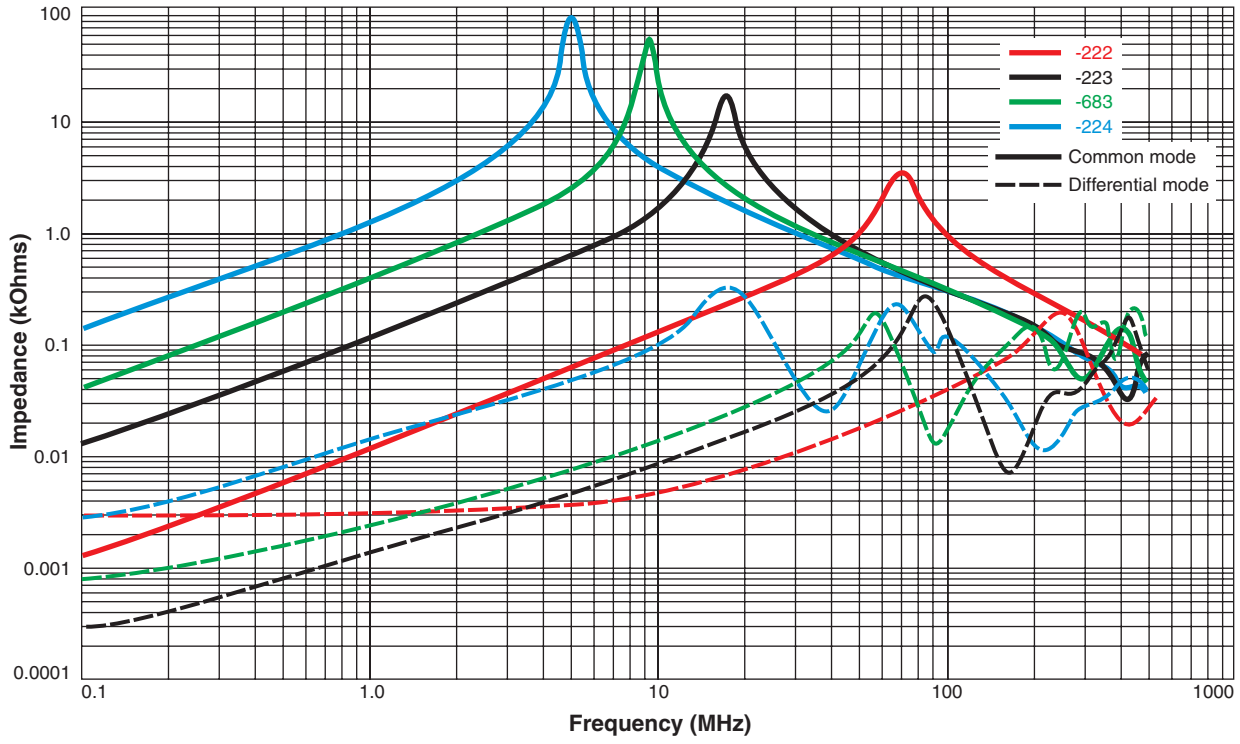
Document 1329-2 Revised 12/30/21

Common Mode Chokes – LPD5030 Series

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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Document 1329-3 Revised 12/30/21