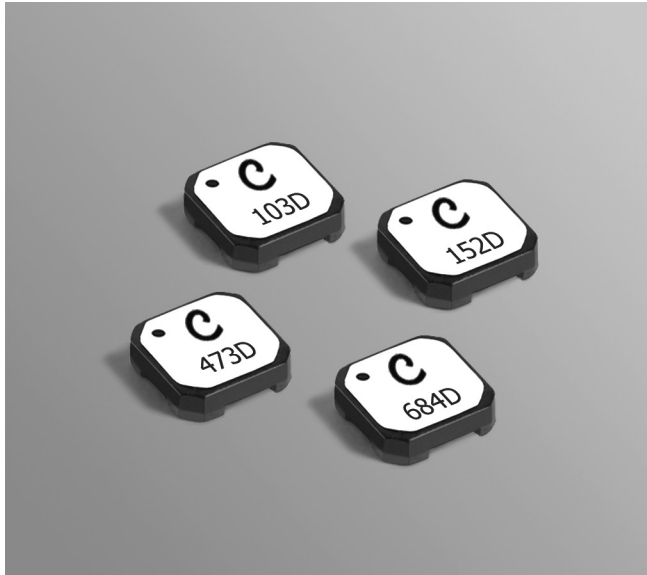


Common Mode Chokes – LPD5010



- Only 0.9 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 530 MHz differential mode cutoff frequency
- Can be used as coupled inductors for SEPIC applications

Core material Ferrite

Weight 60 – 70 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 (40°C rise) 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

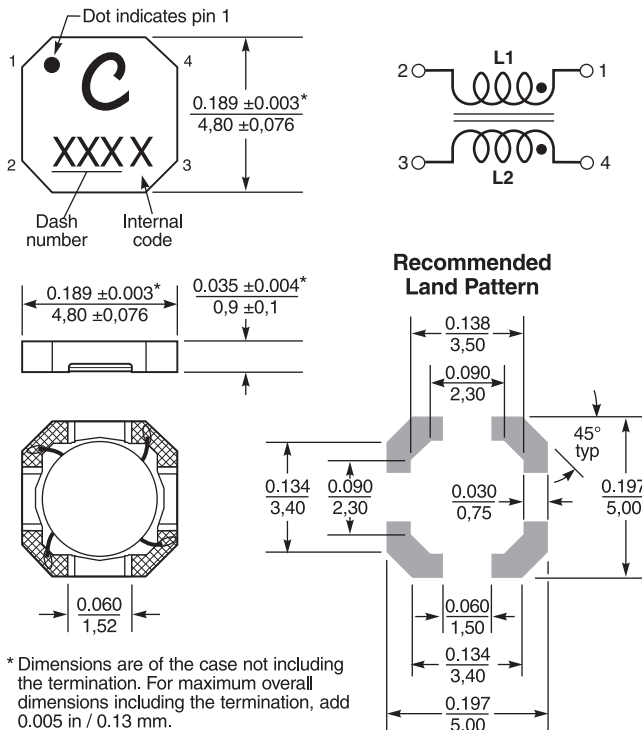
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

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

Packaging 1000/7" reel; 3500/13" reel Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 1.02 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 in / 0.13 mm.

Dimensions are in $\frac{\text{inches}}{\text{mm}}$



Common Mode Chokes – LPD5010 Series

Partnumber ¹	Common mode peak impedance (kOhms)	Cutoff ² frequency (MHz)	Inductance (μH) ³		DCR max ⁴ (Ohms)	Isolation ⁵ (Vrms)	Irms ⁶ (A)
			min	nom			
LPD5010-681NR_	0.88 @ 200 MHz	470	0.544	0.680	0.07	100	1.95
LPD5010-102MR_	1.43 @ 160 MHz	530	0.800	1.00	0.10	100	1.50
LPD5010-152MR_	2.05 @ 110 MHz	380	1.20	1.50	0.15	100	1.20
LPD5010-222MR_	3.03 @ 100 MHz	260	1.76	2.20	0.20	100	1.10
LPD5010-332MR_	4.60 @ 80 MHz	190	2.64	3.30	0.27	100	0.95
LPD5010-472MR_	6.47 @ 64 MHz	160	3.76	4.70	0.40	100	0.75
LPD5010-562MR_	7.27 @ 64 MHz	140	4.48	5.60	0.45	100	0.70
LPD5010-682MR_	8.76 @ 54 MHz	150	5.44	6.80	0.53	100	0.60
LPD5010-822MR_	10.97 @ 49 MHz	180	6.56	8.20	0.70	100	0.50
LPD5010-103MR_	12.53 @ 46 MHz	130	8.00	10.0	0.78	100	0.50
LPD5010-153MR_	18.79 @ 36 MHz	96	12.0	15.0	1.19	100	0.42
LPD5010-223MR_	18.52 @ 28 MHz	80	17.6	22.0	1.58	100	0.35
LPD5010-333MR_	26.33 @ 20 MHz	55	26.4	33.0	2.50	100	0.30
LPD5010-473MR_	35.62 @ 18 MHz	43	37.6	47.0	3.48	100	0.25
LPD5010-683MR_	48.54 @ 15 MHz	58	54.4	68.0	5.10	100	0.19
LPD5010-104MR_	78.14 @ 13 MHz	50	80.0	100	8.00	100	0.15
LPD5010-154MR_	116.8 @ 9.8 MHz	26	120	150	11.7	100	0.12
LPD5010-224MR_	129.4 @ 7.2 MHz	28	176	220	15.2	100	0.11

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

LPD5010-224MR**C**

Tolerance: N = 30%, M = 20%

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 (1000 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 (3500 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.

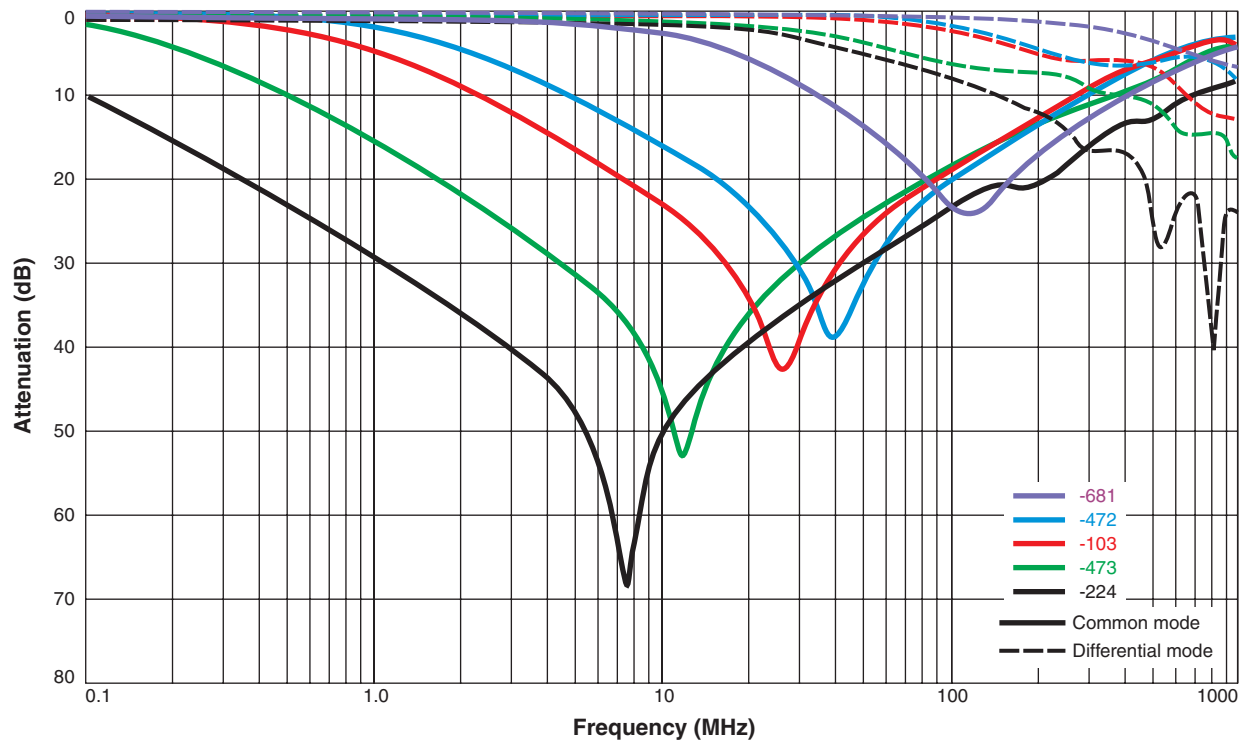
7. Electrical specifications at 25°C.

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

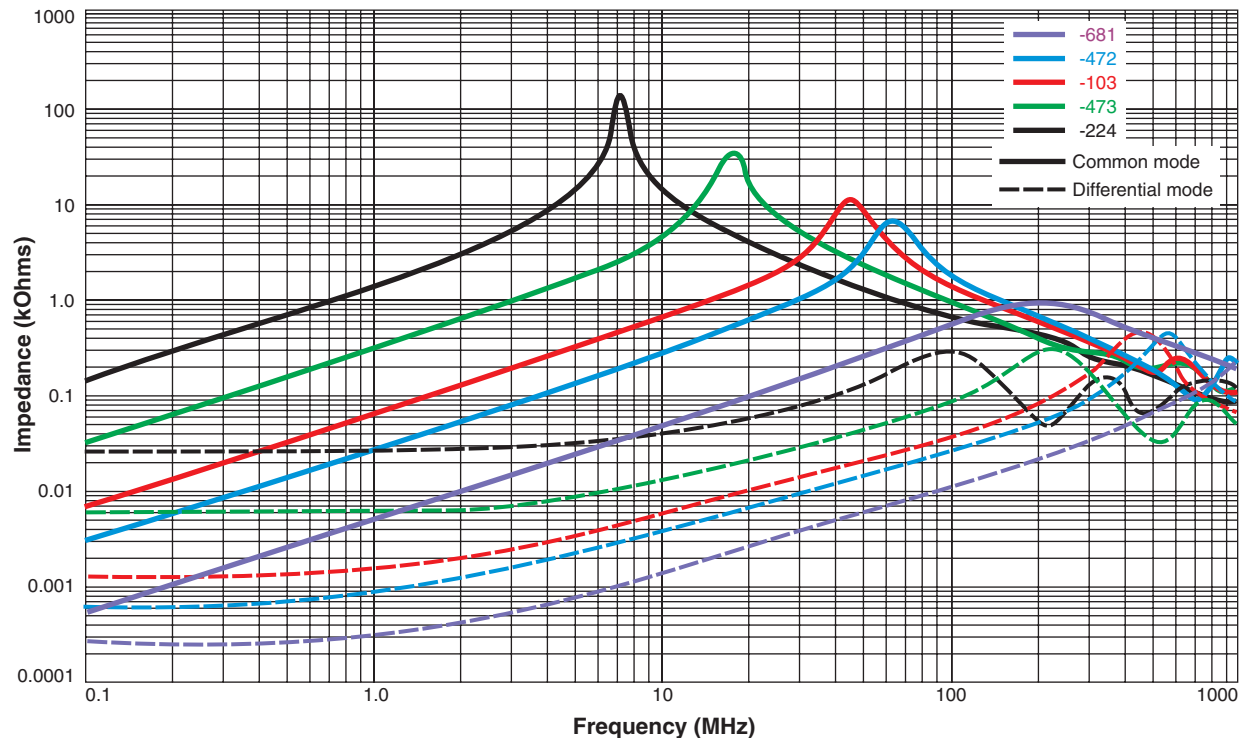


Common Mode Chokes – LPD5010 Series

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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