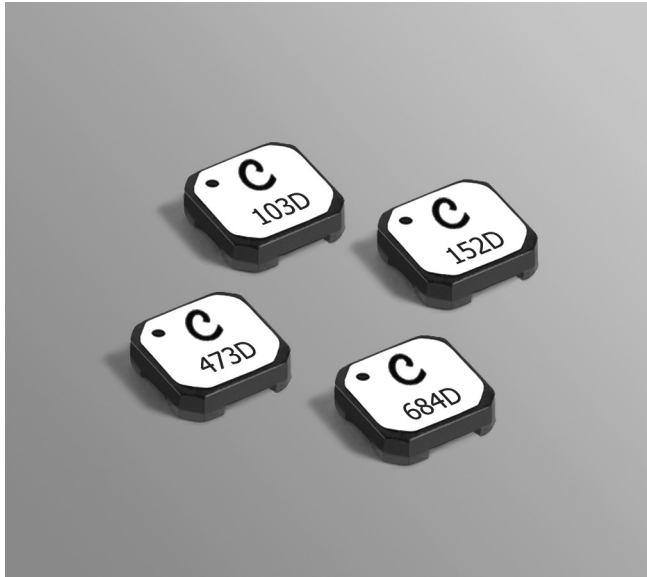


Common Mode Chokes – LPD5010



- 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)

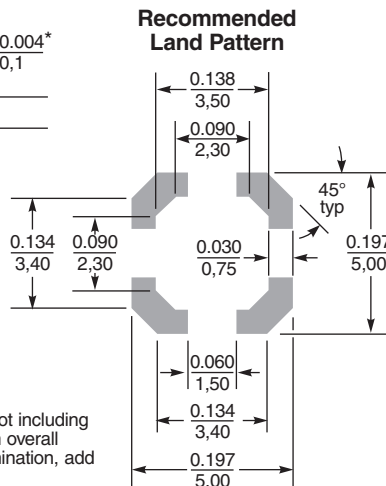
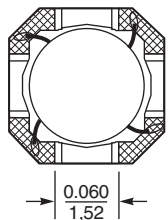
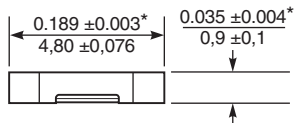
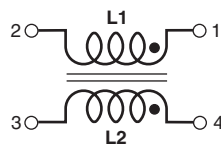
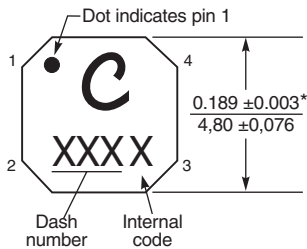
Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

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)	I _{rms} ⁶ (A)
			min	nom			
LPD5010-681MR_	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:

LPD5010-224MRC

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).
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 (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.

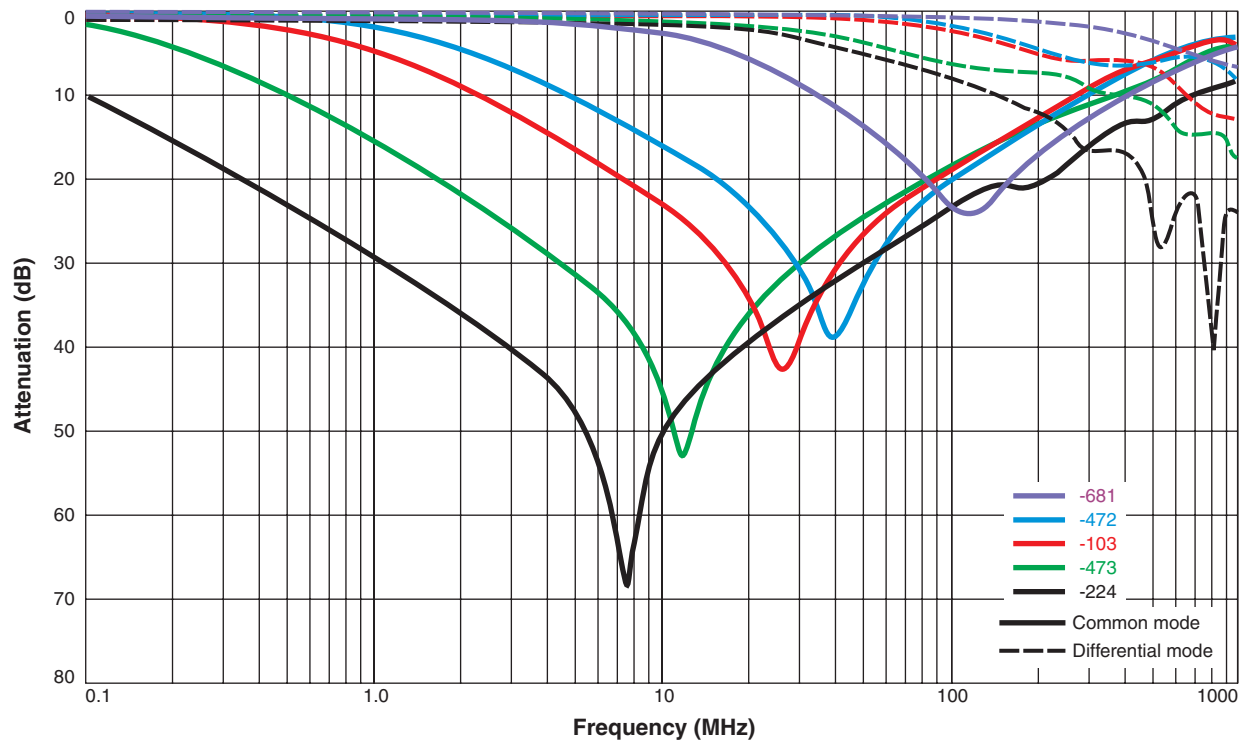
7. Electrical specifications at 25°C.

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

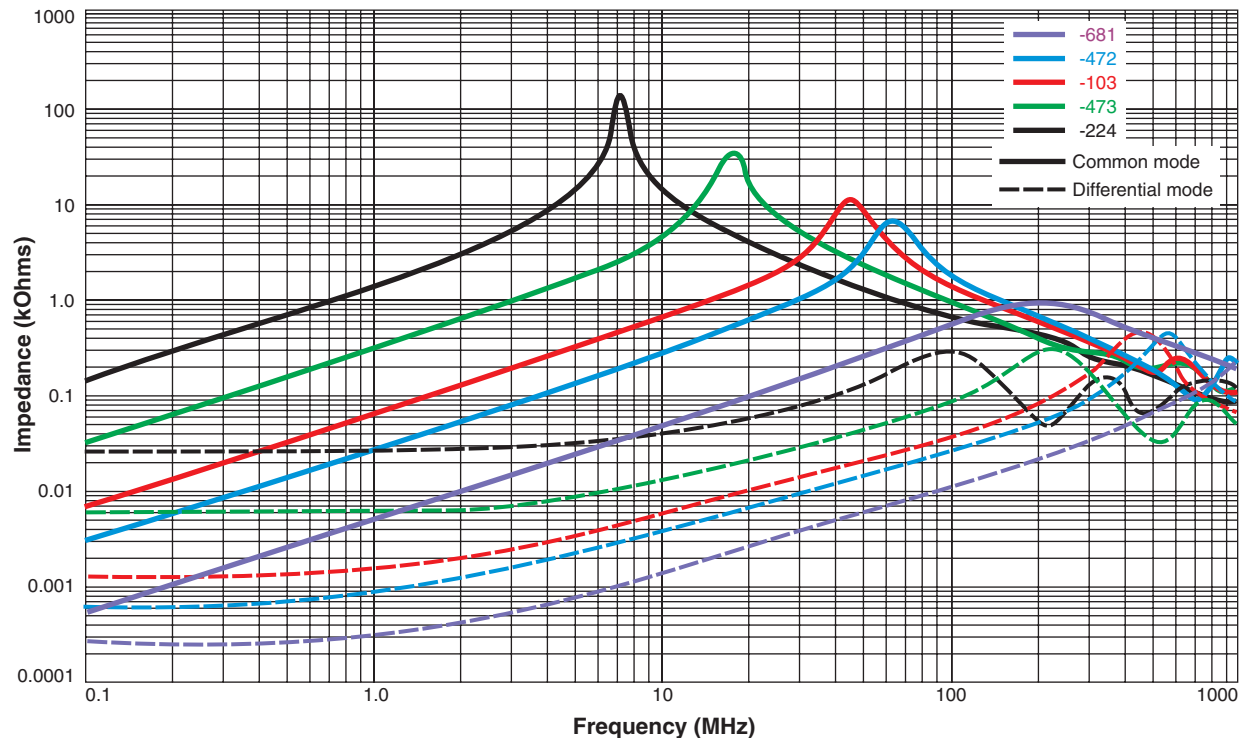


Common Mode Chokes – LPD5010 Series

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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