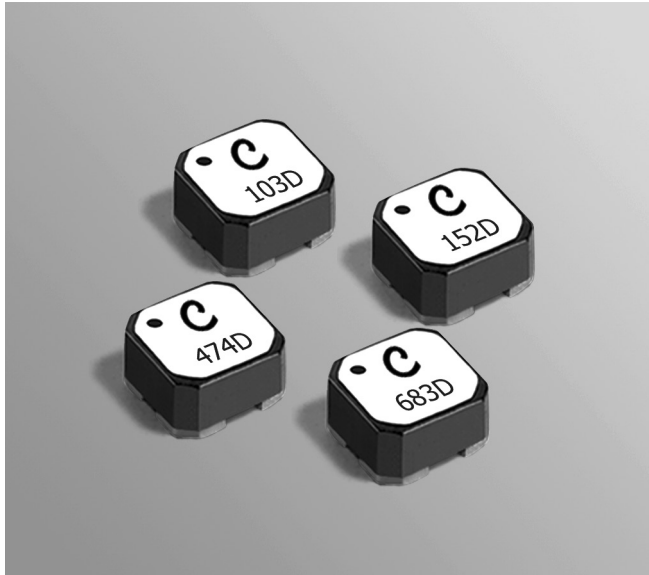


Common Mode Chokes – LPD5030



- 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)

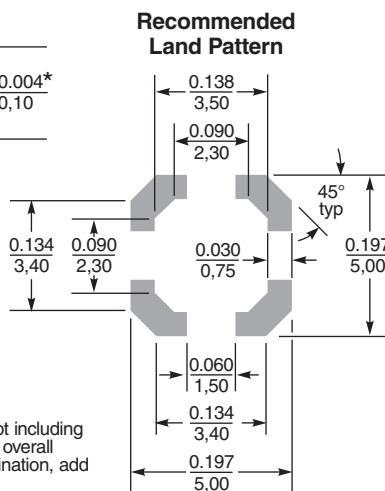
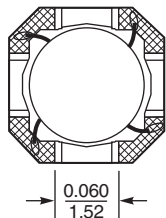
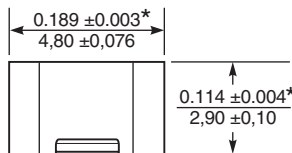
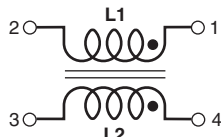
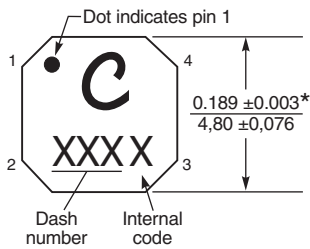
Failures in Time (FIT) / Mean Time Between Failures (MTBF)

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

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

Common Mode Chokes – LPD5030 Series



Partnumber ¹	Common mode impedance max (kOhms)	Cutoff ² frequency (MHz)	Inductance (μH) ³		DCR max ⁴ (Ohms)	Isolation (Vrms)	I _{rms} (A)
			min	nom			
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).

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.

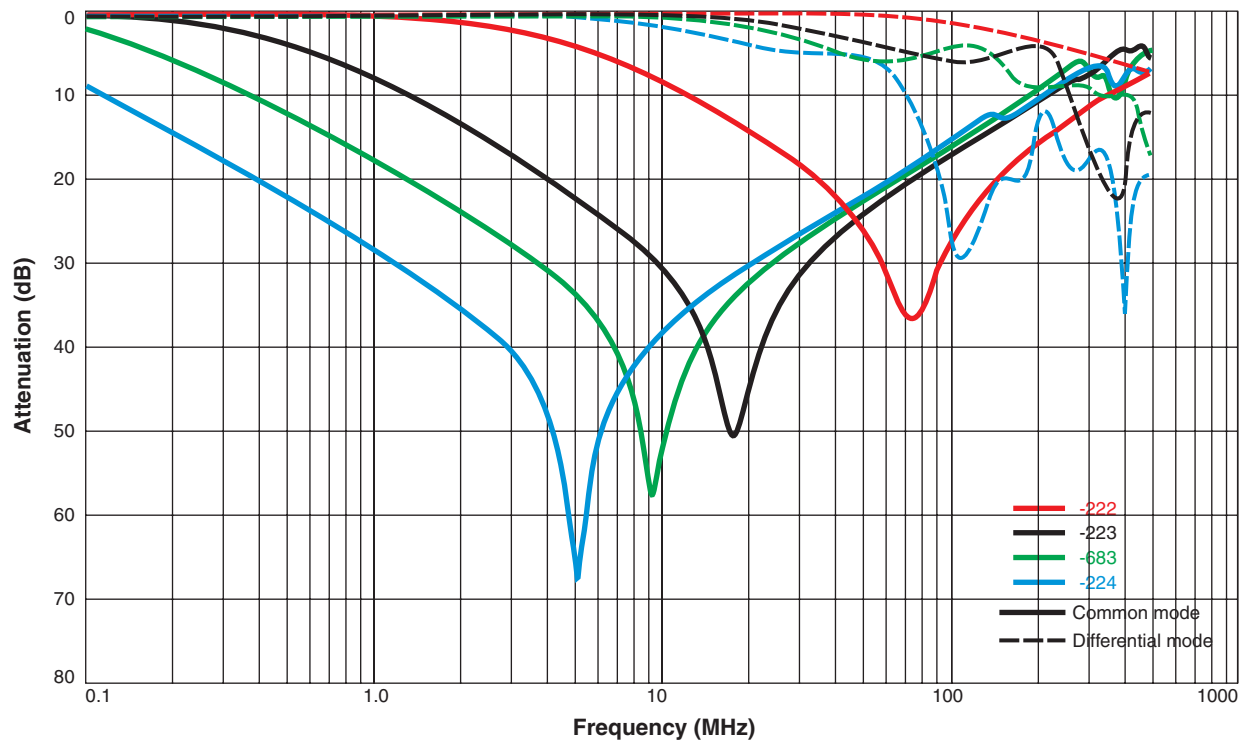
D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2500 parts per full reel).

- Frequency at which the differential mode attenuation equals –3 dB
- Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
- DCR is for each winding.
- Interwinding isolation (hipot) tested for one minute.
- 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.
- Electrical specifications at 25°C.
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

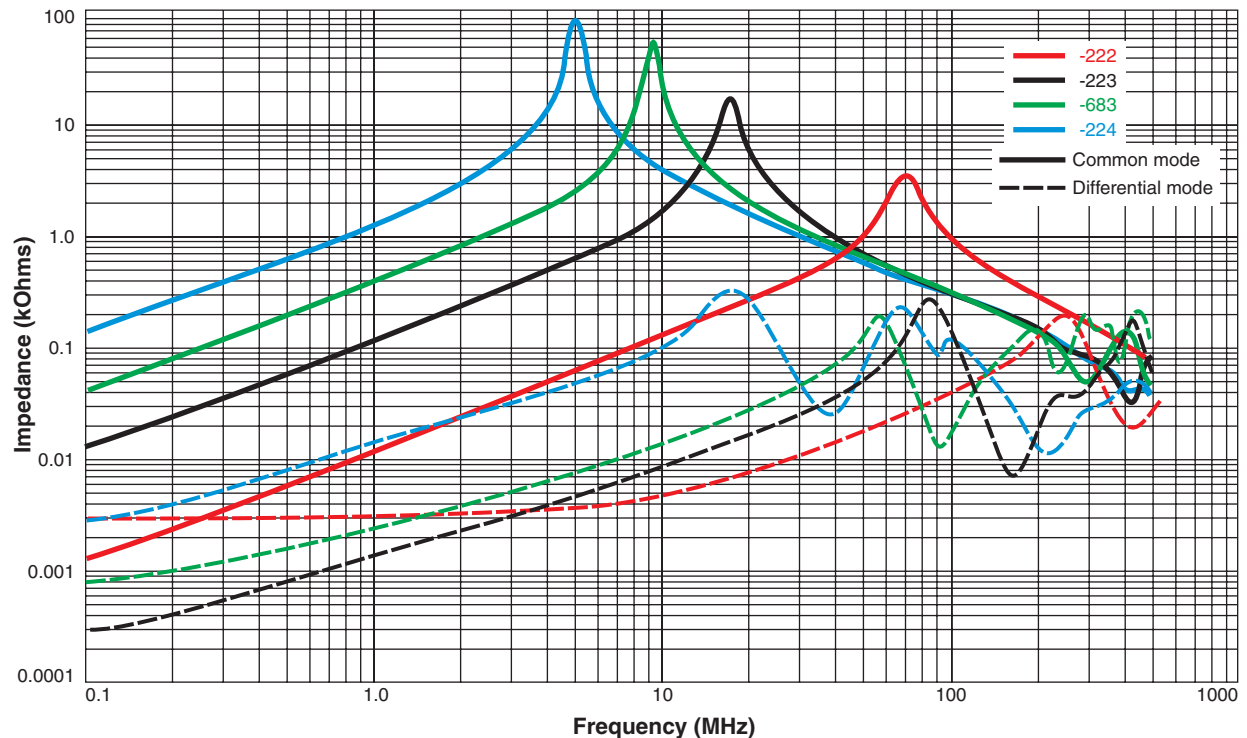


Common Mode Chokes – LPD5030 Series

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency



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