

Common Mode Chokes for Ultra High Current Power EMI Filtering (Capable of 8 ~ 75 Amps Continuous Operation)

<b>Fig. 1 – Two Chokes</b> 	<b>Fig. 2 – Three Chokes</b> 	<b>Fig. 3 – Four Chokes</b> 	<b>Fig. 4 – One Choke</b> 	<b>Fig. 5</b> 	<b>Fig. 6 – One Choke</b> 	<b>Fig. 7 – One Choke</b> 	
<b>Features:</b> • Surface mount design • Filters groups of signals • Multi pass board layout application can effectively install 2, 3 or 4 chokes in series to multiply impedance up to 1000Ω at 100MHz • High continuous operating current capability (8 Amps) • Will fit behind RJ45 Jack • Eliminates the need for an expensive filtered connector • Surface mount • Very low DCR		<b>Features:</b> • High continuous operating current capability (10 ~ 20 Amps) • Compact size • Parts available in both thru-hole (B) and surface mount (R) versions		<b>Features:</b> • Can be used as multi-pass device to multiply impedance • Parts available in both thru-hole (B) and surface mount (R) versions		<b>Features:</b> • Surface mount design • High continuous operating current (15 Amps) • Low profile • Low DCR • Resistant to board flex stress	

Fig.	Size Code	Dimensions – mm			Common Mode Impedance (Ω)		Current Rating I Max. (A) Continuous	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel				Steward Part No.						
		L	W	H	100MHz	300MHz			1	50	100		Qty.	Pricing	Qty.	Pricing		Qty.	Pricing				
<b>High Current Surface Mount</b>																							
1	3032	7.62	8.13	9.45	200	205	8	240-2461-1-ND	2.56	2.40	2.08	1.92	240-2461-2-ND	400	446.62	2,000	1053.71/M	4,000	1021.17/M	CM3032V201R-10			
2	4732	11.94	8.13	9.45	200	220	8	240-2462-1-ND	3.93	3.68	3.19	—	240-2462-2-ND	100	171.69	500	809.08	1,000	1568.78	CM3032V301R-10			
3	6032	15.24	8.13	9.45	200	210	8	240-2463-1-ND	2.79	2.62	2.27	2.10	240-2463-2-ND	400	488.81	2,000	1151.34/M	4,000	1116.55/M	CM4732V301R-10			
4	2545	11.38	6.30	9.32	170	180	10	240-2464-1-ND	4.28	4.01	3.48	—	240-2464-2-ND	150	280.43	750	1322.19	1,500	1709.05/M	CM4732V301R-10			
5	4545	11.38	8.51	9.32	170	170	20	240-2465-1-ND	3.48	3.26	2.83	2.61	240-2465-2-ND	500	760.27	2,500	1433.67/M	5,000	1390.23/M	CM4545X171R-10			
6	5740	14.48	10.03	9.32	170	190	20	240-2466-1-ND	5.13	4.81	4.17	—	240-2466-2-ND	100	224.10	500	1056.51	1,000	2049.06	CM6032V301R-10			
7	2021	5.60	5.00	2.85	33	35	15	240-2467-1-ND	1.75	1.65	1.43	1.32	240-2467-2-ND	400	306.57	2,000	722.67/M	4,000	700.23/M	CM2021Y330R-10			
8	3421	8.68	6.60	2.85	60	65	15	240-2468-1-ND	2.20	2.06	1.79	1.65	240-2468-2-ND	375	360.64	1,875	906.71/M	3,750	878.66/M	CM3421Z171R-10			
<b>High Current Thru Hole</b>																							
4	2545	11.38	6.30	9.32	170	175	10	240-2485-ND†	1.37	1.14	98	89	—	—	—	—	—	—	—	—	CM2545X171R-10		
5	4545	11.38	8.51	9.32	170	145	10	240-2486-ND†	1.91	1.59	1.37	1.23	—	—	—	—	—	—	—	—	—	CM4545Z131R-10	
<b>Ultra High Current Thru Hole</b>																							
4	3440	10.03	8.51	9.32	170	175	20	240-2487-ND†	1.76	1.46	1.26	1.14	—	—	—	—	—	—	—	—	—	CM3440Z171R-10	
5	5740	14.48	10.03	9.32	170	175	20	240-2490-ND†	2.31	1.92	1.65	1.49	—	—	—	—	—	—	—	—	—	—	CM5740Z171R-10
7	5441	13.72	10.41	15.24	160	150	75	240-2488-ND†	2.42	2.02	1.74	1.57	—	—	—	—	—	—	—	—	—	—	CM5441Z161R-10
7	5441	13.72	10.41	10.52	100	112	75	240-2489-ND†	2.03	1.68	1.45	1.31	—	—	—	—	—	—	—	—	—	—	CM5441Z101R-10

† Bulk Packaging

\$240-2228-ND High Current (200mA ~ 75A) Common Mode Choke Sample Kit (4 each of parts denoted)..... \$50.50

Common Mode Chokes for Data/Signal Lines and CAN-Bus Applications

Automotive, Medical, Industrial, Consumer Electronics, etc. Strong low and high frequency impedance!

Surface mount chokes for Controller Area Networks (CAN-Bus) and other common mode EMI filtering applications. Current compensated surface mount chokes, filter common mode noise currents and minimize emissions from high speed data lines. Also suppresses interference with on-board electronics. Available in 1812 and 2824 sizes. Four chokes offer peak impedance below 10MHz. Over 12,000Ω at 2MHz. Operating Temp. Range: -40°C to +125°C for ≥ 1,000µH.

Fig.	A	A1 Max.	B	C	C1 Max.	D	T1	T2	Steward Part No. Family
1	7.50	9.00	5.50	3.80	4.90	2.54	1.75	0.50	CC2824xxxxR-x0
2	5.00	5.20	3.50	3.55	—	1.70	1.00	1.00	CC1812xxxxR-x0

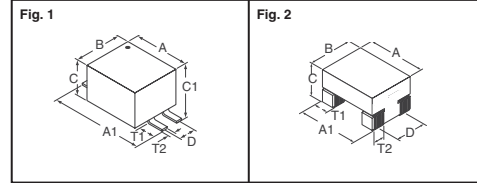


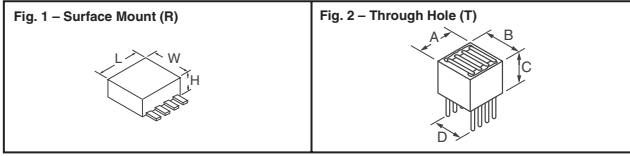
Fig.	Test Conditions	Lp Inductance – µH			Typical Peak Impedance Ω @ MHz	TRP 100kHz/50mV	Hi-Pot (VAC) 0.5 mA, 2 sec.	DCR Typical (Ω)	I <sub>dc</sub> (mA)	Digi-Key Part No.	Cut Tape Price Each			Digi-Key Part No.	Tape and Reel		Steward Part No.
		Min.	Nom.	Max.							10	50	100		Qty.	Pricing	
1	100kHz / 50mV	3.5	5.0	6.5	388 @ 500	1:1 ±5%	250	0.10	1,200	240-2445-1-ND	7.82	6.78	6.26	240-2445-2-ND	1,500	3645.82/M	CC2824J502R-10
	100kHz / 50mV	7.7	11.0	14.3	780 @ 200	1:1 ±5%	250	0.12	800	240-2446-1-ND	6.35	5.51	5.08	240-2446-2-ND	1,500	3663.50/M	CC2824E113R-10
	100kHz / 50mV	17.5	25.0	32.5	1,971 @ 100	1:1 ±5%	250	0.13	800	240-2447-1-ND	7.82	6.78	6.26	240-2447-2-ND	1,500	3645.82/M	CC2824E253R-10
	100kHz / 50mV	35.0	51.0	66.3	3,805 @ 50	1:1 ±5%	250	0.16	800	240-2448-1-ND	4.16	3.60	3.33	240-2448-2-ND	1,500	1938.23/M	CC2824E513R-10
	100kHz / 50mV	329.0	470.0	611.0	8,580 @ 5	1:1 ±5%	750	0.20	700	240-2449-1-ND	8.55	7.41	6.84	240-2449-2-ND	1,500	3987.58/M	CC2824E474R-10
	100kHz / 50mV	700.0	1,000.0	1,500.0	4,250 @ 7	1:1 ±5%	750	0.20	700	240-2450-1-ND	8.37	7.25	6.69	240-2450-2-ND	1,500	3902.74/M	CC2824E105R-10
	100kHz / 50mV	1,540.0	2,200.0	3,300.0	5,276 @ 5	1:1 ±5%	750	0.40	500	240-2451-1-ND	8.37	7.25	6.69	240-2451-2-ND	1,500	3902.74/M	CC2824D225R-10
	100kHz / 50mV	3,290.0	4,700.0	7,050.0	12,300 @ 2	1:1 ±5%	750	0.55	400	240-2452-1-ND	7.82	6.78	6.26	240-2452-2-ND	1,500	3645.82/M	CC2824B475R-10
2	100kHz / 50mV	35.7	51.0	66.3	3,530 @ 40	1:1 ±5%	250	0.50	200	240-2453-1-ND	5.62	4.87	4.50	240-2453-2-ND	2,000	2198.47/M	CC1812C513R-10

† 240-2583-ND CAN-Bus Common Mode Sample Kit (5 each of parts denoted)..... \$11.22

Differential Mode Surface Mount and Through Hole Ferrite EMI Filters



Differential Mode Multi-Line Arrays for Power EMI Filtering 3, 4, 5, and 8 Line Filters Rated up to 10 Amps Continuous Operation



These multi-line ferrite products provide economical EMI filtering of differential mode noise in surface mount and through hole PCB applications. They are designed to provide high frequency suppression of both common

and differential mode EMI noise on groups of data/power lines. The surface mount differential mode EMI filters are rated for up to 9 Amps continuous operation per filtered line (channel) and the through hole filters are rated

up to 10 Amps continuous operation per line. Rugged construction provides protection against transient events as well as much higher peak current handling capability than most other EMI suppression devices. Low DCR.

Surface Mount

Fig.	Dimensions – mm			Typical Impedance (Ω)		Current Rating I Max. (A) Continuous	No. of Lines	Digi-Key Part No.	Cut Tape Pricing			Digi-Key Part No.	Tape and Reel				Steward Part No.		
	L	W	H	100MHz	300MHz				10	50	100		Qty.	Pricing	Qty.	Pricing		Qty.	Pricing
1	8.33	10.87	6.35	200	210	9	3	240-2441-1-ND	18.08	78.36	144.66	240-2441-2-ND	450	379.74	2,250	795.62/M	4,500	772.05/M	29F0330-ZSR-10
	10.87	10.87	6.35	200	210	8	4	240-2443-1-ND	19.38	83.96	154.99	240-2443-2-ND	900	814.01	4,500	852.85/M	9,000	827.04/M	29F0430-ZSR-10
	11.43	4.50	4.19	119	120	6	8	240-2444-1-ND	28.95	125.44	231.58	240-2444-2-ND	900	1215.97	4,500	1273.66/M	9,000	1235.50/M	29F0818-1SR-10
	4.83	4.50	4.19	119	128	6	3	240-2515-1-ND	17.76	76.96	142.07	240-2515-2-ND	900	746.35	4,500	781.03/M	9,000	757.46/M	29F0318-1SR-10
	6.10	4.50	2.92	83	83	6	4	240-2517-1-ND	16.53	71.65	132.27	240-2517-2-ND	900	694.84	4,500	727.16/M	9,000	705.84/M	29F0418-0SR-10
	6.10	4.50	4.19	119	118	6	4	240-2442-1-ND	16.92	73.31	135.33	240-2442-2-ND	900	710.50	4,500	744.33/M	9,000	721.78/M	29F0418-1SR-10
	10.87	10.87	8.89	290	299	9	4	240-2518-1-ND	23.41	101.42	187.24	240-2518-2-ND	400	436.74	2,000	1030.15/M	4,000	998.73/M	29F0430-4SR-10
	11.43	4.50	2.92	75	81	6	8	240-2519-1-ND	28.08	121.66	224.61	240-2519-2-ND	900	1179.61	4,500	1235.50/M	9,000	1198.47/M	29F0818-0SR-10

(Continued)

Digi-Reel Most SMT cutdown parts are available on a Digi-Reel. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key Services on page 2 for additional information.

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