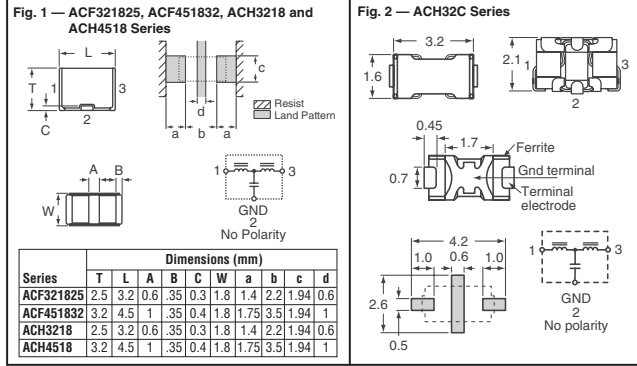




3-Terminal Filters for Signal Line and DC Power Line / SMD – ACF and ACH Series

Features: • The ACF and ACH series are T-type EMC filters incorporating ferrite chip beads and multilayer ceramic chip capacitors. • The external structure consists entirely of ferrite, enabling these parts to achieve superior attenuation characteristics despite their extremely compact dimensions. • Because they can be mounted on edge, the ACF and ACH series are ideal for high-density circuit configurations.

Dimensions in mm



Attenuation Frequency (MHz) Max.	I Max. (A)	Rdc Max. (Ω)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 1,000	TDK Part No.	
Fig. 1 - ACF321825 Series, Operating Temperature -25°C - 85°C							
17	0.3	0.15	445-2059-1-ND	51	4.38	20.22	235.95
27	0.3	0.15	445-2060-1-ND	51	4.38	20.22	235.95
37	0.3	0.15	445-2061-1-ND	51	4.38	20.22	235.95
45	0.3	0.15	445-2062-1-ND	51	4.38	20.22	235.95
55	0.3	0.15	445-2063-1-ND	51	4.38	20.22	235.95
65	0.3	0.15	445-2064-1-ND	51	4.38	20.22	235.95
80	0.3	0.15	445-2065-1-ND	51	4.38	20.22	235.95
100	0.3	0.15	445-2066-1-ND	51	4.38	20.22	235.95
120	0.3	0.15	445-2067-1-ND	51	4.38	20.22	235.95
145	0.3	0.15	445-2068-1-ND	51	4.38	20.22	235.95
165	0.3	0.15	445-2069-1-ND	51	4.38	20.22	235.95
200	0.3	0.15	445-2070-1-ND	51	4.38	20.22	235.95
240	0.3	0.15	445-2071-1-ND	51	4.38	20.22	235.95
300	0.3	0.15	445-2072-1-ND	51	4.38	20.22	235.95
370	0.3	0.15	445-2073-1-ND	51	4.38	20.22	235.95
450	0.3	0.15	445-2074-1-ND	51	4.38	20.22	235.95
530	0.3	0.15	445-2075-1-ND	51	4.38	20.22	235.95
650	0.3	0.15	445-2076-1-ND	51	4.38	20.22	235.95

Attenuation Frequency (MHz) Max.	I Max. (A)	Rdc Max. (Ω)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 1,000	TDK Part No.	
Fig. 1 - ACF451832 Series, Operating Temperature -25°C - 85°C							
12	0.3	0.15	445-2077-1-ND	61	5.26	24.27	283.15
15	0.3	0.15	445-2078-1-ND	61	5.26	24.27	283.15
18	0.3	0.15	445-2079-1-ND	61	5.26	24.27	283.15
23	0.3	0.15	445-2080-1-ND	61	5.26	24.27	283.15
35	0.3	0.15	445-2081-1-ND	61	5.26	24.27	283.15
40	0.3	0.15	445-2082-1-ND	61	5.26	24.27	283.15
50	0.3	0.15	445-2083-1-ND	61	5.26	24.27	283.15
60	0.3	0.15	445-2084-1-ND	61	5.26	24.27	283.15
75	0.3	0.15	445-2085-1-ND	61	5.26	24.27	283.15
90	0.3	0.15	445-2086-1-ND	61	5.26	24.27	283.15
105	0.3	0.15	445-2087-1-ND	61	5.26	24.27	283.15
125	0.3	0.15	445-2088-1-ND	61	5.26	24.27	283.15
150	0.3	0.15	445-2089-1-ND	61	5.26	24.27	283.15
190	0.3	0.15	445-2090-1-ND	61	5.26	24.27	283.15
230	0.3	0.15	445-2091-1-ND	61	5.26	24.27	283.15
280	0.3	0.15	445-2092-1-ND	61	5.26	24.27	283.15
340	0.3	0.15	445-2093-1-ND	61	5.26	24.27	283.15
410	0.3	0.15	445-2094-1-ND	61	5.26	24.27	283.15
500	0.3	0.15	445-2095-1-ND	61	5.26	24.27	283.15
600	0.3	0.15	445-2096-1-ND	61	5.26	24.27	283.15

Attenuation Frequency (MHz) Max.	I Max. (A)	Rdc Max. (Ω)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 1,000	TDK Part No.	
Fig. 1 - ACH3218 Series, Operating Temperature -25°C - 85°C							
17	1.5	0.06	445-2097-1-ND	51	4.38	20.22	235.95
27	1.5	0.06	445-2098-1-ND	51	4.38	20.22	235.95
37	1.5	0.06	445-2099-1-ND	51	4.38	20.22	235.95
45	1.5	0.06	445-2100-1-ND	51	4.38	20.22	235.95
55	1.5	0.06	445-2101-1-ND	51	4.38	20.22	235.95
65	1.5	0.06	445-2102-1-ND	51	4.38	20.22	235.95
80	1.5	0.06	445-2103-1-ND	51	4.38	20.22	235.95
100	1.5	0.06	445-2104-1-ND	51	4.38	20.22	235.95
120	1.5	0.06	445-2105-1-ND	51	4.38	20.22	235.95
145	1.5	0.06	445-2106-1-ND	51	4.38	20.22	235.95
165	1.5	0.06	445-2107-1-ND	51	4.38	20.22	235.95
200	1.5	0.06	445-2108-1-ND	51	4.38	20.22	235.95
240	1.5	0.06	445-2109-1-ND	51	4.38	20.22	236.00
300	1.5	0.06	445-2110-1-ND	51	4.38	20.22	235.95
370	1.5	0.06	445-2111-1-ND	51	4.38	20.22	235.95
450	1.5	0.06	445-2112-1-ND	51	4.38	20.22	235.95
530	1.5	0.06	445-2113-1-ND	51	4.38	20.22	235.95
650	1.5	0.06	445-2114-1-ND	51	4.38	20.22	235.95

Attenuation Frequency (MHz) Max.	I Max. (A)	Rdc Max. (Ω)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 1,000	TDK Part No.	
Fig. 1 - ACH4518 Series, Operating Temperature -25°C - 85°C							
12	2	0.04	445-2115-1-ND	61	5.26	24.27	283.15
15	2	0.04	445-2116-1-ND	61	5.26	24.27	283.15
18	2	0.04	445-2117-1-ND	61	5.26	24.27	283.15
23	2	0.04	445-2118-1-ND	61	5.26	24.27	283.15

Attenuation Frequency (MHz) Max.	I Max. (A)	Rdc Max. (Ω)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 1,000	TDK Part No.	
35	2	0.04	445-2119-1-ND	61	5.26	24.27	283.15
40	2	0.04	445-2120-1-ND	61	5.26	24.27	283.15
50	2	0.04	445-2121-1-ND	61	5.26	24.27	283.15
60	2	0.04	445-2122-1-ND	61	5.26	24.27	283.15
75	2	0.04	445-2123-1-ND	61	5.26	24.27	283.15
90	2	0.04	445-2124-1-ND	61	5.26	24.27	283.15
105	2	0.04	445-2125-1-ND	61	5.26	24.27	283.15
125	2	0.04	445-2126-1-ND	61	5.26	24.27	283.15
150	2	0.04	445-2127-1-ND	61	5.26	24.27	283.00
190	2	0.04	445-2128-1-ND	61	5.26	24.27	283.15
230	2	0.04	445-2129-1-ND	61	5.26	24.27	—
280	2	0.04	445-2130-1-ND	61	5.26	24.27	283.15
340	2	0.04	445-2131-1-ND	61	5.26	24.27	283.15
410	2	0.04	445-2132-1-ND	61	5.26	24.27	283.15
500	2	0.04	445-2133-1-ND	61	5.26	24.27	283.15
600	2	0.04	445-2134-1-ND	61	5.26	24.27	283.15

* For Tape and Reel part number, change 1-ND to 2-ND.

Guaranteed Frequency Bandwidth (MHz)	Guaranteed Attenuation (dB)	I Max. (A)	Rdc Max. (mΩ)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 2,000	TDK Part No.	
Fig. 2 - ACH32C Series, Operating Temperature -40°C - 125°C								
3.5 - 150	-25	6	2	445-2988-1-ND	56	4.88	22.52	263.00/M
10 - 300	-25	6	2	445-2997-1-ND	56	4.88	22.52	263.00/M
30 - 300	-25	6	2	445-2996-1-ND	56	4.88	22.52	263.00/M
55 - 300	-25	6	2	445-2995-1-ND	56	4.88	22.52	263.00/M
100 - 500	-25	6	2	445-2994-1-ND	56	4.88	22.52	263.00/M
200 - 800	-25	6	2	445-2993-1-ND	56	4.88	22.52	263.00/M
450 - 1300	-20	6	2	445-2992-1-ND	56	4.88	22.52	263.00/M
650 - 2500	-15	6	2	445-2991-1-ND	56	4.88	22.52	263.00/M
1300 - 2500	-15	6	2	445-2990-1-ND	56	4.88	22.52	263.00/M
2000 - 5500	-15	6	2	445-2989-1-ND	56	4.88	22.52	263.00/M

* For Tape and Reel part number, change 1-ND to 2-ND.

3-Terminal Filters for Signal Line / SMD – MEM2012T Series



Features: • Multilayer chip EMC filter utilizing a T-type circuit. • Entirely monolithic structure results in high reliability. • Due to closed magnetic circuit architecture, high-density installation becomes possible and crosstalk generation is prevented. • Steep attenuation characteristic plot. Highly effective noise suppression. • Covers a wide range of frequencies. • Operating Temperature Range: -40°C - 85°C

Dimensions in mm

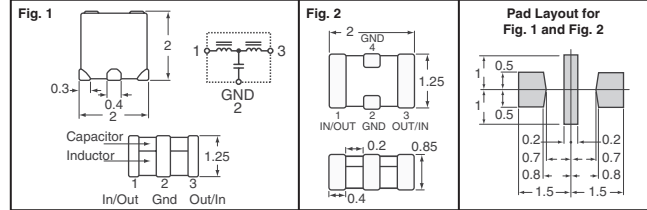


Fig.	Cut-off Freq. (MHz)	I Max. (A)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 1,000	TDK Part No.	
1	10	0.1	445-2135-1-ND	26	2.28	10.52	122.69
	25	0.15	445-2136-1-ND	26	2.28	10.52	122.69
	50	0.15	445-2137-1-ND	26	2.28	10.52	122.69
	75	0.25	445-2138-1-ND	51	4.38	20.22	235.95
	100	0.25	445-2139-1-ND	26	2.28	10.52	122.69
2	25	0.1	445-3357-1-ND	25	2.17	10.01	4,000
	35	0.1	445-3358-1-ND	25	2.17	10.01	4,000
	50	0.1	445-3359-1-ND	25	2.17	10.01	4,000
	100	0.25	445-3360-1-ND	25	2.17	10.01	4,000
	200	0.25	445-3361-1-ND	25	2.17	10.01	4,000

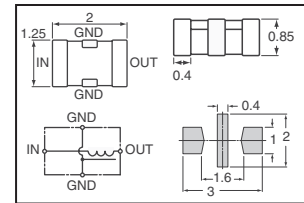
* For Tape and Reel part number, change 1-ND to 2-ND.

3-Terminal Filters for Signal Line / SMD – MEM2012D Series



This chip type EMC filter eliminates the noise component from a communication line. This noise component can be eliminated by inserting these products in series with the communication line. In comparison to earlier multilayer chip EMC filters, signal wave-form distortion is low after the signal has passed through the filter. Therefore this filter can be used for high speed pulse signal circuits and wide band analog RGB circuits.

Features: • Small size • Steep attenuation characteristic • Low distortion of signal after passing through filter • Capable of reflow soldering
Applications: • PCs • CRTs • LC display panels • Printers • Game machines • DVD equipment
Operating Temperature Range: -40°C - 85°C



Cut-off Frequency (MHz)	I Maximum (A)	Digi-Key Part No.	Cut Tape Pricing 1 10 50	Tape and Reel Pricing* 4,000	TDK Part No.	
200	0.2	445-3353-1-ND	33	2.89	13.34	156.00/M

Features: • A chip-type common mode filter for large current applications • Common mode impedance surpasses 80 - 1000Ω at 100MHz • Noise is greatly suppressed • Height and size have been considered, resulting in a compact and light weight choke coil • Applicable for the miniaturization required to reduce the size and weight of portable equipment

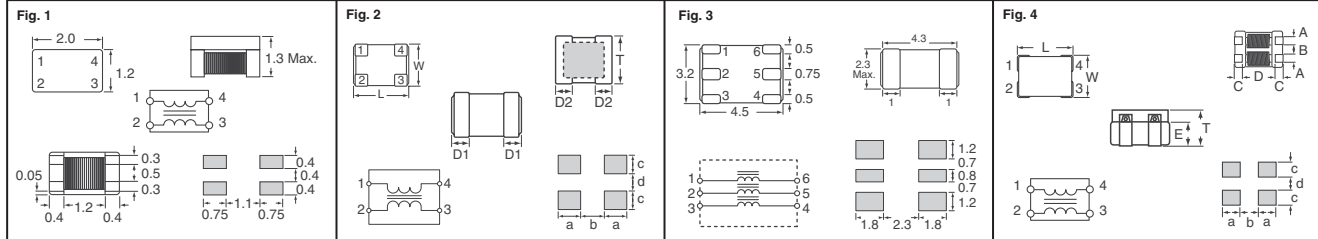


Fig.	L (mm)	W (mm)	T (mm) Max.	D1 (mm)	D2 (mm)	A (mm)	B (mm)	C (mm)	D (mm) Type	E (mm)	a (mm)	b (mm)	c (mm)	d (mm)	TDK Part No. Family
2	3.2	2.5	2.3	0.7	0.65	—	—	—	—	—	1.5	1.6	1.4	1.1	ACM3225-xxx-2P ACM4532-xxx-2P
	4.5	3.2	3.0	1	1	—	—	—	—	—	1.8	2.3	1.75	1.1	
4	7.0	6.0	3.5	—	—	1.5	1.5	1.5	4.0	2.2	2.5	4.0	1.5	1.5	ACM7060-xxx-2PL ACM9070-701-2PL
	9.0	7.0	4.5	—	—	1.5	2.0	1.5	6.0	2.9	2.5	6.0	1.5	2.0	ACM1211-xxx-2PL ACM1513-551-2PL
	12.0	11.0	6.0	—	—	2.7	2.5	2.3	7.4	3.8	3.2	7.6	2.7	2.5	
	15.0	13.0	6.0	—	—	2.7	3.8	2.3	10.4	3.8	3.3	10.4	2.7	3.8	

Fig.	Typical Impedance @ 100MHz (Ω)	Max. DC Resistance (Ω)	Max. Rated Current Idc (A)	No. of Lines	Digi-Key Part No.	Cut Tape Price Each			Tape and Reel*		TDK Part No.
						1	10	50	Qty.	Pricing	
ACM Series											
1	90	0.19	0.4	2	445-2207-1-ND	.57	.50	.46	2,000	264.27/M	ACM2012-900-2P-T
	120	0.22	0.37	2	445-2208-1-ND	.57	.50	.46	2,000	264.27/M	ACM2012-121-2P-T000
	200	0.25	0.35	2	445-2209-1-ND	.57	.50	.46	2,000	264.27/M	ACM2012-201-2P-T000
	360	0.5	0.22	2	445-2210-1-ND	.57	.50	.46	2,000	264.27/M	ACM2012-361-2P-T000
2	80	0.15	0.4	2	445-2030-1-ND	.97	.85	.78	1,000	453.02	ACM3225-800-2P-T001
	270	0.3	0.3	2	445-2032-1-ND	.97	.85	.78	1,000	453.02	ACM3225-271-2P-T001
	1000	0.5	0.2	2	445-2033-1-ND	.97	.85	.78	1,000	453.02	ACM3225-102-2P-T001
	600	0.2	1.0	2	445-2035-1-ND	.97	.85	.78	1,000	453.02	ACM3225-601-2P-T001
	600	0.1	1.5	2	445-2036-1-ND	1.05	.92	.85	500	245.39	ACM4532-601-2P-T001
	800	0.1	1.0	2	445-2037-1-ND	1.05	.92	.85	500	245.39	ACM4532-801-2P-T001
3	1000	0.6	0.2	3	445-2034-1-ND	1.05	.92	.85	500	245.39	ACM4532-102-3P
	300	0.01	5	2	445-2214-1-ND	1.58	1.37	1.27	1,500	736.18/M	ACM7060-301-2PL-TL
	700	0.015	4	2	445-2215-1-ND	1.58	1.37	1.27	1,500	736.18/M	ACM7060-701-2PL-TL
	700	0.01	5	2	445-2216-1-ND	1.58	1.37	1.27	800	588.94	ACM9070-701-2PL-TL
	700	0.006	8	2	445-2212-1-ND	2.22	1.93	1.78	500	519.09	ACM1211-701-2PL-TL
	1000	0.014	6	2	445-2213-1-ND	2.22	1.93	1.78	500	519.09	ACM1211-102-2PL-TL
4	550	0.004	10	2	445-2211-1-ND	2.63	2.28	2.11	500	613.48	ACM1513-551-2PL-TL
	300	0.35	0.4	2	445-2966-1-ND	.79	.69	.64	2,000	370.00/M	ACM2520-301-2P
	450	0.4	0.35	2	445-2967-1-ND	.79	.69	.64	2,000	370.00/M	ACM2520-451-2P
	600	0.45	0.3	2	445-2968-1-ND	.79	.69	.64	2,000	370.00/M	ACM2520-601-2P-T
5	1000	0.9	0.2	2	445-2969-1-ND	.79	.69	.64	2,000	370.00/M	ACM2520-102-2P
	TCM Series										
6	65	1.5	0.10	2	445-2970-1-ND	.58	.51	.47	4,000	272.00/M	TCM1210-650-2P
	90	1.75	0.10	2	445-2971-1-ND	.58	.51	.47	4,000	272.00/M	TCM1210-900-2P-T
	200	2.7	0.10	2	445-2972-1-ND	.58	.51	.47	4,000	272.00/M	TCM1210-201-2P-T
	300	3.5	0.05	2	445-2973-1-ND	.58	.51	.47	4,000	272.00/M	TCM1210-301-2P-T
7	65	1.5	0.10	4	445-2974-1-ND	.94	.82	.76	4,000	438.00/M	TCM2010-650-4P
	100	1.5	0.10	4	445-2975-1-ND	.94	.82	.76	4,000	438.00/M	TCM2010-101-4P-T
	200	2.0	0.10	4	445-2976-1-ND	.94	.82	.76	4,000	438.00/M	TCM2010-201-4P-T
	260	5.0	0.04	4	445-2977-1-ND	.94	.82	.76	4,000	438.00/M	TCM2010-261-4P-T

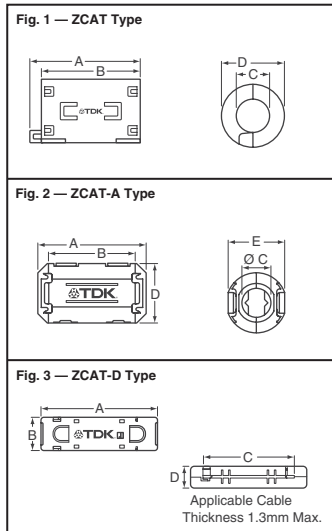
* For Tape and Reel part number, change 1-ND to 2-ND.

Clamp Filters for Cable



Features: • Unique plastic case ensures simple, convenient installation and includes a self-holding mechanism to prevent slippage on cables • Ferrite core provides excellent absorption of high-frequency EMC • Highly effective as countermeasure against common mode EMC without adverse effect on signal quality • Large core size prevents saturation during large signal surges

Fig.	Dimensions (mm)					Minimum Impedance @ 50 - 500MHz (Ω)	Outer Cable Diameter (mm)	Case Color	Digi-Key Part No.	Price Each				TDK Part No.	
	A	B	ØC	ØD	E					1	10	50	100		
ZCAT Type															
1	22	18	7	15	—	35	7 Max.	Gray	445-2040-ND	1.09	.90	.78	.70	ZCAT1518-0730	
	22	18	7	15	—	35	7 Max.	Black	445-2041-ND	1.09	.90	.78	.70	ZCAT1518-0730-BK	
	21	17	9	20	—	35	9 Max.	Gray	445-2044-ND	1.29	1.07	.93	.83	ZCAT2017-0930	
	21	17	9	20	—	35	9 Max.	Black	445-2045-ND	1.29	1.07	.93	.83	ZCAT2017-0930-BK	
	36	32	11	20.5	—	50	11 Max.	Gray	445-2048-ND	1.16	.96	.83	.75	ZCAT2132-1130	
	36	32	11	20.5	—	50	11 Max.	Black	445-2049-ND	1.16	.96	.83	.75	ZCAT2132-1130-BK	
2	39	34	13	30	—	100	13 Max.	Gray	445-2054-ND	2.55	2.11	1.82	1.64	ZCAT3035-1330	
	39	34	13	30	—	100	13 Max.	Black	445-2055-ND	2.55	2.11	1.82	1.64	ZCAT3035-1330-BK	
	ZCAT-A Type														
	2	25	20	5	12.8	11.2	50	3 - 5	Gray	445-2038-ND	.71	.60	.51	.46	ZCAT1325-0530A
		25	20	5	12.8	11.2	50	3 - 5	Black	445-2039-ND	.71	.60	.51	.46	ZCAT1325-0530A-BK
		30	23	7	16.5	15	50	4 - 7	Gray	445-2042-ND	1.22	1.02	.88	.79	ZCAT1730-0730A
		30	23	7	16.5	15	50	4 - 7	Black	445-2043-ND	1.22	1.02	.88	.79	ZCAT1730-0730A-BK
		35	28	9	19.5	17.4	80	6 - 9	Gray	445-2046-ND	1.22	1.02	.88	.79	ZCAT2035-0930A
		35	28	9	19.5	17.4	80	6 - 9	Black	445-2047-ND	1.22	1.02	.88	.79	ZCAT2035-0930A-BK
		35	28	10	21.5	20	80	8 - 10	Gray	445-2050-ND	1.60	1.33	1.14	1.03	ZCAT2235-1030A
35		28	10	21.5	20	80	8 - 10	Black	445-2051-ND	1.60	1.33	1.14	1.03	ZCAT2235-1030A-BK	
36		29	13	23.5	22	50	10 - 13	Gray	445-2052-ND	2.04	1.69	1.46	1.31	ZCAT2436-1330A	
36		29	13	23.5	22	50	10 - 13	Black	445-2053-ND	2.04	1.69	1.46	1.31	ZCAT2436-1330A-BK	
ZCAT-D Type															
3	45.5	24.5	34	12	—	35	26 Conductor Flat	Black	445-2057-ND	4.07	3.38	2.91	2.62	ZCAT4625-3430D-BK	
	67.5	18.5	52	16	—	35	40 Conductor Flat	Black	445-2058-ND	6.79	5.63	4.85	4.37	ZCAT6819-5230D-BK	



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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