

INDUCTORS

Ferrite Chip



ACL SERIES - Shielded Inductor

ACL series of wire wound chip inductors feature totally enclosed magnetic paths. They achieve high reliability through the use of a simple structure and TDK's ferrite material.

Features

- Highly effective magnetic (flux) shield.
- Availability of high inductance values despite the small size.
- Wire-wound construction gives high Q values.
- Low temperature coefficient.

ACL1008	0.01 to 10 μ H
ACL1210	0.01 to 1000 μ H

Product Identification

ACL	1210	-	R10	M
(1)	(2)	(3)	(4)	

(1) Series name

(2) Dimensions L x W x T inches [mm]

1008	0.098 x 0.079 x 0.079 [2.5 x 2.0 x 2.0]
1210	0.126 x 0.098 x 0.098 [3.2 x 2.5 x 2.5]

(3) Inductance

10n	10nH [0.01 μ H]
R10	0.1 μ H
1R0	1 μ H
100	10 μ H

(4) Inductance tolerance

M	\pm 20%
K	\pm 10%

Packaging style

T Taping (ϕ 178 mm [7.008 inches] reel)

Packaging quantities

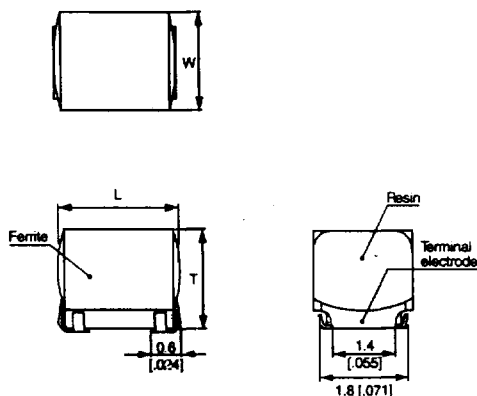
Size	T (ϕ 178 mm [7.008 inches] reel)
1008	1000 pcs./reel
1210	1000 pcs./reel

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ACL1008 TYPE Dimensions (L x W x T): 0.098 x 0.079 x 0.079 inches [2.5 x 2.0 x 2.0mm]



Electrical Characteristics

Distributor Part Number	TDK Manufacturing Part Number	Inductance (μH)	Q Min.	L,Q Test Freq. (MHz)	SRF (MHz) Min.	DC Resistance (Ω) Max.	Rated DC Current (mA) Max.
ACL1008-10nM	ACL2520L-10nM-T	0.010±20%	15	100	2100	0.19	725
ACL1008-12nM	ACL2520L-12nM-T	0.012±20%	15	100	2020	0.2	705
ACL1008-15nM	ACL2520L-15nM-T	0.015±20%	15	100	1850	0.23	655
ACL1008-18nM	ACL2520L-18nM-T	0.018±20%	15	100	1770	0.25	630
ACL1008-22nM	ACL2520L-22nM-T	0.022±20%	15	100	1560	0.28	595
ACL1008-27nM	ACL2520L-27nM-T	0.027±20%	15	100	1450	0.32	555
ACL1008-33nM	ACL2520L-33nM-T	0.033±20%	20	100	1290	0.34	540
ACL1008-39nM	ACL2520L-39nM-T	0.039±20%	20	100	1230	0.37	515
ACL1008-47nM	ACL2520L-47nM-T	0.047±20%	20	100	1080	0.4	500
ACL1008-56nM	ACL2520L-56nM-T	0.056±20%	20	100	980	0.46	465
ACL1008-68nM	ACL2520L-68nM-T	0.068±20%	20	100	890	0.52	435
ACL1008-82nM	ACL2520L-82nM-T	0.082±20%	20	100	840	0.59	410
ACL1008-R10M	ACL2520L-R10M-T	0.10±20%	20	100	770	0.62	400
ACL1008-R12K	ACL2520L-R12K-T	0.12±10%	25	25.2	670	0.29	585
ACL1008-R15K	ACL2520L-R15K-T	0.15±10%	25	25.2	600	0.32	555
ACL1008-R18K	ACL2520L-R18K-T	0.18±10%	25	25.2	510	0.43	480
ACL1003-R22K	ACL2520L-R22K-T	0.22±10%	30	25.2	470	0.46	465
ACL1003-R27K	ACL2520L-R27K-T	0.27±10%	30	25.2	410	0.53	430
ACL1008-R33K	ACL2520L-R33K-T	0.33±10%	35	25.2	350	0.58	415
ACL1008-R39K	ACL2520L-R39K-T	0.39±10%	35	25.2	330	0.64	395
ACL1008-R47K	ACL2520L-R47K-T	0.47±10%	40	25.2	310	0.68	380
ACL1008-R56K	ACL2520L-R56K-T	0.56±10%	40	25.2	270	0.74	365
ACL1008-R68K	ACL2520L-R68K-T	0.68±10%	40	25.2	195	0.8	350
ACL1008-R82K	ACL2520L-R82K-T	0.82±10%	40	25.2	155	0.89	335
ACL1008-1R0K	ACL2520L-1R0K-T	1.0±10%	40	25.2	150	0.98	315

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ACL1008 TYPE (Continued)

Electrical Characteristics

Part Number	Manufacturing Part Number	Inductance (%)	D (mm)	L (mm)	W (mm)	DC Resistance (Ω) Max.	Rated DC Current (mA) Max.
ACL1008-1R2K	ACL2520L-1R2K-T	1.2±10%	40	7.96	210	0.56	270
ACL1008-1R5K	ACL2520L-1R5K-T	1.5±10%	40	7.96	190	0.63	245
ACL1008-1R8K	ACL2520L-1R8K-T	1.8±10%	40	7.96	180	0.68	220
ACL1008-2R2K	ACL2520L-2R2K-T	2.2±10%	40	7.96	160	0.75	195
ACL1008-2R7K	ACL2520L-2R7K-T	2.7±10%	45	7.96	150	0.82	160
ACL1008-3R3K	ACL2520L-3R3K-T	3.3±10%	45	7.96	120	0.92	160
ACL1008-3R9K	ACL2520L-3R9K-T	3.9±10%	45	7.96	90	0.99	155
ACL1008-4R7K	ACL2520L-4R7K-T	4.7±10%	45	7.96	57	1.09	140
ACL1008-5R6K	ACL2520L-5R6K-T	5.6±10%	50	7.96	48	1.16	110
ACL1008-6R8K	ACL2520L-6R8K-T	6.8±10%	50	7.96	34	1.28	110
ACL1008-8R2K	ACL2520L-8R2K-T	8.2±10%	50	7.96	32	1.45	105
ACL1008-100K	ACL2520L-100K-T	10±10%	50	7.96	28	1.57	90

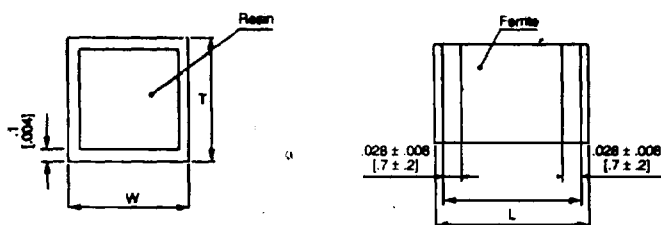
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ACL SERIES - Shielded Inductor

ACL1210 TYPE Dimensions (L x W x T): .126 x .098 x .098 inches [3.2 x 2.5 x 2.5mm]



Electrical Characteristics

Distributor Part Number	TDK Manufacturing Part Number	Inductance (μH)	Q Min.	L,Q Test Freq. (MHz)	SRF (MHz) Min.	DC Resistance (Ω) Max.	Rated DC Current (mA) Max.
ACL1210-10nM	ACL3225S-10nM-T	0.010±20%	10	100	2000	0.19	725
ACL1210-12nM	ACL3225S-12nM-T	0.012±20%	10	100	1750	0.20	705
ACL1210-15nM	ACL3225S-15nM-T	0.015±20%	10	100	1550	0.23	655
ACL1210-18nM	ACL3225S-18nM-T	0.018±20%	15	100	1450	0.25	630
ACL1210-22nM	ACL3225S-22nM-T	0.022±20%	15	100	1300	0.28	595
ACL1210-27nM	ACL3225S-27nM-T	0.027±20%	15	100	1150	0.30	575
ACL1210-33nM	ACL3225S-33nM-T	0.033±20%	15	100	1040	0.34	540
ACL1210-39nM	ACL3225S-39nM-T	0.039±20%	20	100	950	0.37	515
ACL1210-47nM	ACL3225S-47nM-T	0.047±20%	20	100	850	0.41	490
ACL1210-56nM	ACL3225S-56nM-T	0.056±20%	20	100	770	0.47	460
ACL1210-68nM	ACL3225S-68nM-T	0.068±20%	20	100	740	0.50	445
ACL1210-82nM	ACL3225S-82nM-T	0.082±20%	20	100	600	0.55	425
ACL1210-R10M	ACL3225S-R10M-T	0.10±20%	30	100	510	0.64	395
ACL1210-R12K	ACL3225S-R12K-T	0.12±10%	35	25.2	580	0.24	645
ACL1210-R15K	ACL3225S-R15K-T	0.15±10%	35	25.2	470	0.26	620
ACL1210-R18K	ACL3225S-R18K-T	0.18±10%	35	25.2	400	0.29	585
ACL1210-R22K	ACL3225S-R22K-T	0.22±10%	40	25.2	340	0.33	550
ACL1210-R27K	ACL3225S-R27K-T	0.27±10%	40	25.2	290	0.37	515
ACL1210-R33K	ACL3225S-R33K-T	0.33±10%	40	25.2	250	0.39	505
ACL1210-R39K	ACL3225S-R39K-T	0.39±10%	40	25.2	220	0.42	485
ACL1210-R47K	ACL3225S-R47K-T	0.47±10%	50	25.2	200	0.46	465
ACL1210-R56K	ACL3225S-R56K-T	0.56±10%	50	25.2	180	0.51	440
ACL1210-R68K	ACL3225S-R68K-T	0.68±10%	50	25.2	155	0.55	425
ACL1210-R82K	ACL3225S-R82K-T	0.82±10%	50	25.2	140	0.60	405
ACL1210-1R0K	ACL3225S-1R0K-T	1.0±10%	50	25.2	130	0.68	380
ACL1210-1R2K	ACL3225S-1R2K-T	1.2±10%	60	7.96	150	0.52	435
ACL1210-1R5K	ACL3225S-1R5K-T	1.5±10%	60	7.96	130	0.59	360
ACL1210-1R8K	ACL3225S-1R8K-T	1.8±10%	60	7.96	120	0.64	330
ACL1210-2R2K	ACL3225S-2R2K-T	2.2±10%	60	7.96	105	0.71	310

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ACL1210 TYPE (Continued)

Electrical Characteristics

Part Number	Inductance (µH)	Q Min.	LQ Test Freq. (MHz)	SRF (MHz)	DC Resistance (Ω) Max.	Rated DC Current (mA) Max.
ACL1210-2R7K	2.7±10%	60	7.96	90	0.77	300
ACL1210-3R3K	3.3±10%	60	7.96	80	0.85	240
ACL1210-3R9K	3.9±10%	60	7.96	70	0.94	230
ACL1210-4R7K	4.7±10%	60	7.96	60	1.00	220
ACL1210-5R6K	5.6±10%	60	7.96	52	1.10	180
ACL1210-6R8K	6.8±10%	60	7.96	44	1.25	160
ACL1210-8R2K	8.2±10%	60	7.96	37	1.35	130
ACL1210-100K	10±10%	60	7.96	31	1.50	120
ACL1210-120K	12±10%	50	2.52	49	1.50	120
ACL1210-150K	15±10%	50	2.52	30	1.75	120
ACL1210-180K	18±10%	50	2.52	22	1.95	110
ACL1210-220K	22±10%	50	2.52	17	2.15	100
ACL1210-270K	27±10%	50	2.52	14.5	2.35	85
ACL1210-330K	33±10%	50	2.52	12.5	2.65	85
ACL1210-390K	39±10%	50	2.52	11.5	2.90	70
ACL1210-470K	47±10%	50	2.52	10.5	3.15	65
ACL1210-560K	56±10%	50	2.52	10	3.40	45
ACL1210-680K	68±10%	50	2.52	9.0	3.80	55.0
ACL1210-820K	82±10%	50	2.52	8.5	4.30	40.0
ACL1210-101K	100±10%	50	2.52	7.8	4.70	40.0
ACL1210-121M	120±20%	25	0.796	7.6	3.05	14.0
ACL1210-151M	150±20%	25	0.796	6.8	3.50	13.0
ACL1210-181M	180±20%	25	0.796	6.2	3.95	10.0
ACL1210-221M	220±20%	25	0.796	5.6	4.20	10.0
ACL1210-271M	270±20%	25	0.796	5.1	4.80	8.5
ACL1210-331M	330±20%	25	0.796	4.6	5.55	8.5
ACL1210-391M	390±20%	25	0.796	4.2	6.00	8.0
ACL1210-471M	470±20%	25	0.796	3.7	6.70	8.0
ACL1210-561M	560±20%	25	0.796	3.4	7.50	7.5
ACL1210-681M	680±20%	25	0.796	3.1	8.35	6.0
ACL1210-821M	820±20%	25	0.796	2.7	9.55	5.5
ACL1210-102M	1000±20%	25	0.796	2.4	11.0	5.0

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