

Inductors
For General Applications
Radial

ELF Series ELF0607 Type

FEATURES

- The ELF series inductors are available in 4 form factors ranging from 0505 to 1010.
- Because they are magnetically shielded, these parts can be used in high-density mounting configurations.
- With a miniature winding construction, these inductors nonetheless achieve high Q characteristics.
- Available in tape packaging to support automated mounting machines.

APPLICATIONS

Televisions, VCRs, personal computers, and other electronic equipment.

SPECIFICATIONS

Operating temperature range	−20 to +80°C [Including self-temperature rise]
Storage temperature range	−40 to +80°C [Unit of products]
Terminal tensile strength	24.5N min.

PRODUCT IDENTIFICATION

ELF	0505	RA-	1R0	K	-3
(1)	(2)	(3)	(4)	(5)	(6)

(1)Series name

(2)Dimensions

0505	ø5.5×5.5mm (lead pitch 5mm)
0607	ø6.6×7mm (lead pitch 5mm)
0708	ø7.7×8mm (lead pitch 5mm)
1010	ø10.5×10.5mm (lead pitch 5mm)

(3)Packaging style

RA	Ammo-pack
RR	Reel

(4)Inductance value

R22	0.22μH
1R0	1μH

(5)Inductance tolerance

J	±5%
K	±10%
M	±20%

(6)TDK internal code

(Some products may not have this number. See the main body for details.)

PACKAGING STYLE AND QUANTITIES

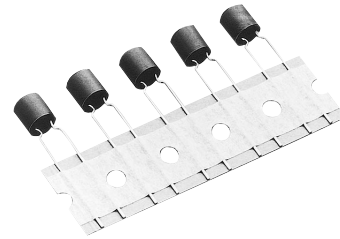
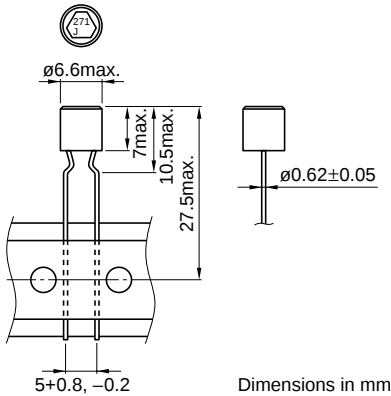
Packaging style	Type	Quantity
Ammo-pack	ELF0505RA	2000 pieces
	ELF0607RA	1000 pieces
	ELF0708RA	1000 pieces
Taping	ELF1010RR	300 pieces/reel

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AMMO-PACK TAPING STYLE SHAPES AND DIMENSIONS



ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)ref.	DC resistance (Ω)max.	Rated current (mA)*1max.		Part No.
						Based on inductance change	Based on temperature rise	
0.22	±20, ±10%	40	25.2	390	0.15	3200	895	ELF0607RA-R22X*2
0.27	±20, ±10%	40	25.2	330	0.15	2900	895	ELF0607RA-R27X
0.33	±20, ±10%	40	25.2	280	0.15	2600	895	ELF0607RA-R33X
0.39	±20, ±10%	40	25.2	250	0.15	2400	895	ELF0607RA-R39X
0.47	±20, ±10%	40	25.2	220	0.15	2200	895	ELF0607RA-R47X
0.56	±20, ±10%	40	25.2	190	0.15	2100	895	ELF0607RA-R56X
0.68	±20, ±10%	40	25.2	170	0.15	1900	895	ELF0607RA-R68X
0.82	±20, ±10%	40	25.2	140	0.15	1700	895	ELF0607RA-R82X
1	±20, ±10%	45	7.96	120	0.17	1600	840	ELF0607RA-1R0X
1.2	±20, ±10%	50	7.96	110	0.18	1500	815	ELF0607RA-1R2X
1.5	±20, ±10%	50	7.96	90	0.2	1300	775	ELF0607RA-1R5X
1.8	±20, ±10%	50	7.96	80	0.22	1200	740	ELF0607RA-1R8X
2.2	±20, ±10%	50	7.96	68	0.25	1100	690	ELF0607RA-2R2X
2.7	±20, ±10%	50	7.96	58	0.28	1000	655	ELF0607RA-2R7X
3.3	±20, ±10%	50	7.96	50	0.31	930	622	ELF0607RA-3R3X
3.9	±20, ±10%	50	7.96	47	0.34	860	595	ELF0607RA-3R9X
4.7	±20, ±10%	50	7.96	42	0.37	790	570	ELF0607RA-4R7X
5.6	±20, ±10%	50	7.96	39	0.4	730	545	ELF0607RA-5R6X
6.8	±20, ±10%	50	7.96	35	0.45	660	515	ELF0607RA-6R8X
8.2	±20, ±10%	50	7.96	32	0.52	580	480	ELF0607RA-8R2X
10	±10, ±5%	50	2.52	29	0.55	560	465	ELF0607RA-100X
12	±10, ±5%	60	2.52	26	0.97	520	350	ELF0607RA-120X
15	±10, ±5%	60	2.52	23	1.1	470	330	ELF0607RA-150X
18	±10, ±5%	60	2.52	21	1.2	430	315	ELF0607RA-180X
22	±10, ±5%	60	2.52	19	1.3	390	300	ELF0607RA-220X
27	±10, ±5%	60	2.52	17	1.5	360	285	ELF0607RA-270X
33	±10, ±5%	60	2.52	16	1.7	330	265	ELF0607RA-330X
39	±10, ±5%	60	2.52	14	1.8	300	255	ELF0607RA-390X
47	±10, ±5%	60	2.52	13	2.1	270	240	ELF0607RA-470X
56	±10, ±5%	60	2.52	12	2.3	250	230	ELF0607RA-560X

*1 Rated current: Value obtained when current flows and the temperature has risen to 20°C or when DC current flows and the initial value of inductance has fallen by 10%, whichever is smaller.

*2 X: Please specify inductance tolerance, M(±20%), K(±10%) or J(±5%)

- Test equipment L, Q: YHP4340A Q METER, or equivalent
Rdc: MATSUSHITA VP-2941A DIGITAL MILLIOHM METER, or equivalent
SRF: TAKEDA RIKEN TR-4100 TRACKING SCOPE, or equivalent

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AMMO-PACK TAPING STYLE

ELECTRICAL CHARACTERISTICS

Inductance (μ H)	Inductance tolerance	Q min.	Test frequency L, Q (MHz)	Self-resonant frequency (MHz)ref.	DC resistance (Ω)max.	Rated current (mA)*1max.		Part No.
						Based on inductance change	Based on temperature rise	
68	$\pm 10, \pm 5\%$	60	2.52	11	2.5	230	220	ELF0607RA-680X
82	$\pm 10, \pm 5\%$	60	2.52	9.8	2.8	210	205	ELF0607RA-820X
100	$\pm 10, \pm 5\%$	55	0.796	8.9	3.1	200	195	ELF0607RA-101X
120	$\pm 10, \pm 5\%$	40	0.796	8	3.4	175	185	ELF0607RA-121X
150	$\pm 10, \pm 5\%$	40	0.796	7.2	3.9	165	175	ELF0607RA-151X
180	$\pm 10, \pm 5\%$	40	0.796	6.6	4.3	150	165	ELF0607RA-181X
220	$\pm 10, \pm 5\%$	40	0.796	6	4.7	140	160	ELF0607RA-221X
270	$\pm 10, \pm 5\%$	40	0.796	5.3	5.3	125	150	ELF0607RA-271X
330	$\pm 10, \pm 5\%$	40	0.796	4.8	6	115	140	ELF0607RA-331X
390	$\pm 10, \pm 5\%$	40	0.796	4.4	6.6	105	135	ELF0607RA-391X
470	$\pm 10, \pm 5\%$	40	0.796	4	7.4	97	125	ELF0607RA-471X
560	$\pm 10, \pm 5\%$	40	0.796	3.8	8.3	90	120	ELF0607RA-561X
680	$\pm 10, \pm 5\%$	40	0.796	3.5	13.5	82	94	ELF0607RA-681X
820	$\pm 10, \pm 5\%$	40	0.796	3.2	15.5	75	88	ELF0607RA-821X
1000	$\pm 10, \pm 5\%$	30	0.252	2.9	18	68	82	ELF0607RA-102X
1200	$\pm 10, \pm 5\%$	30	0.252	2.7	21	63	76	ELF0607RA-122X
1500	$\pm 10, \pm 5\%$	30	0.252	2.4	25	57	69	ELF0607RA-152X
1800	$\pm 10, \pm 5\%$	30	0.252	2.2	29	52	64	ELF0607RA-182X
2200	$\pm 10, \pm 5\%$	30	0.252	2	34	48	59	ELF0607RA-222X
2700	$\pm 10, \pm 5\%$	30	0.252	1.8	40	43	55	ELF0607RA-272X

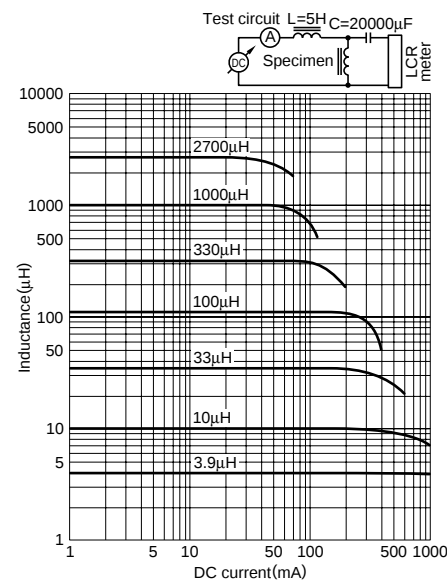
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*2 X: Please specify inductance tolerance, K($\pm 10\%$) or J($\pm 5\%$)

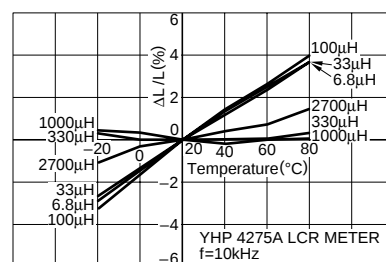
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TYPICAL ELECTRICAL CHARACTERISTICS

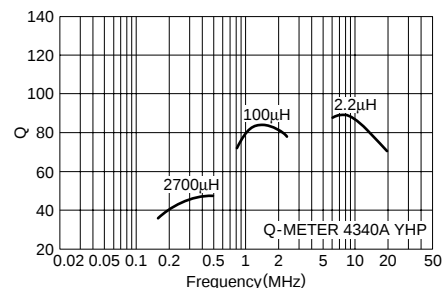
INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS



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