

Inductors

For General Applications

Radial

ELF Series ELF0607 Type

FEATURES

- The ELF series inductors are available in ranging from 0505 to 1010 types.
- 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.
- Terminal platings and internal connecting solder use lead-free materials.
- This product conforms to the standards that are slated to be introduced under the RoHS Directive.

APPLICATIONS

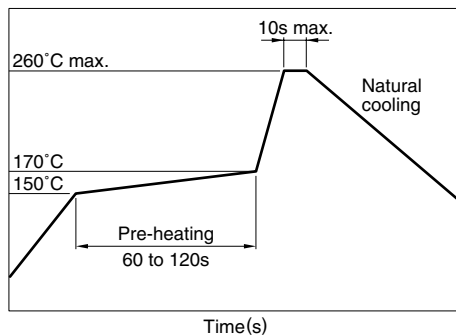
Televisions, VCRs, personal computers, and other electronic equipment.

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.

RECOMMENDED SOLDERING CONDITIONS

FLOW SOLDERING



IRON SOLDERING

Tip temperature	350°C max.
Heating time	5 seconds/soldering

- The use of reflow soldering is not guaranteed.

PRODUCT IDENTIFICATION

ELF	0607	RA-	1R0	K	- PF
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

(2) Dimensions

0607	ø6.6×7mm (lead pitch 5mm)
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(3) Packaging style

RA	Ammo-pack
SKI	Bulk

(4) Inductance value

R22	0.22μH
1R0	1μH
100	10μH
101	100μH

(5) Inductance tolerance

J	±5%
K	±10%
M	±20%

(6) Lead-free compatible product

PF	Lead-free compatible product
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PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Ammo-pack	1000 pieces
Bulk	200 pieces/pack

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

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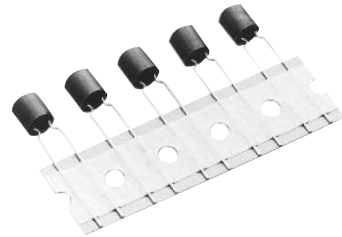
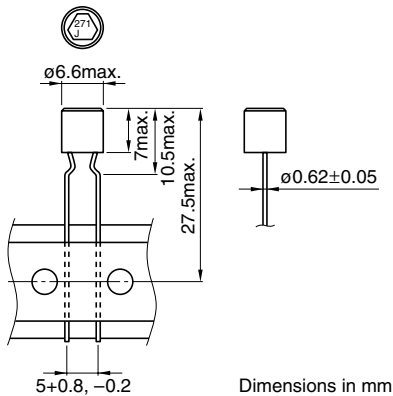
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AMMO-PACK TAPING STYLE

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-R22□*2-PF
0.27	±20, ±10%	40	25.2	330	0.15	2900	895	ELF0607RA-R27□-PF
0.33	±20, ±10%	40	25.2	280	0.15	2600	895	ELF0607RA-R33□-PF
0.39	±20, ±10%	40	25.2	250	0.15	2400	895	ELF0607RA-R39□-PF
0.47	±20, ±10%	40	25.2	220	0.15	2200	895	ELF0607RA-R47□-PF
0.56	±20, ±10%	40	25.2	190	0.15	2100	895	ELF0607RA-R56□-PF
0.68	±20, ±10%	40	25.2	170	0.15	1900	895	ELF0607RA-R68□-PF
0.82	±20, ±10%	40	25.2	140	0.15	1700	895	ELF0607RA-R82□-PF
1	±20, ±10%	45	7.96	120	0.17	1600	840	ELF0607RA-1R0□-PF
1.2	±20, ±10%	50	7.96	110	0.18	1500	815	ELF0607RA-1R2□-PF
1.5	±20, ±10%	50	7.96	90	0.2	1300	775	ELF0607RA-1R5□-PF
1.8	±20, ±10%	50	7.96	80	0.22	1200	740	ELF0607RA-1R8□-PF
2.2	±20, ±10%	50	7.96	68	0.25	1100	690	ELF0607RA-2R2□-PF
2.7	±20, ±10%	50	7.96	58	0.28	1000	655	ELF0607RA-2R7□-PF
3.3	±20, ±10%	50	7.96	50	0.31	930	622	ELF0607RA-3R3□-PF
3.9	±20, ±10%	50	7.96	47	0.34	860	595	ELF0607RA-3R9□-PF
4.7	±20, ±10%	50	7.96	42	0.37	790	570	ELF0607RA-4R7□-PF
5.6	±20, ±10%	50	7.96	39	0.4	730	545	ELF0607RA-5R6□-PF
6.8	±20, ±10%	50	7.96	35	0.45	660	515	ELF0607RA-6R8□-PF
8.2	±20, ±10%	50	7.96	32	0.52	580	480	ELF0607RA-8R2□-PF
10	±10, ±5%	50	2.52	29	0.55	560	465	ELF0607RA-100□-PF
12	±10, ±5%	60	2.52	26	0.97	520	350	ELF0607RA-120□-PF
15	±10, ±5%	60	2.52	23	1.1	470	330	ELF0607RA-150□-PF
18	±10, ±5%	60	2.52	21	1.2	430	315	ELF0607RA-180□-PF
22	±10, ±5%	60	2.52	19	1.3	390	300	ELF0607RA-220□-PF
27	±10, ±5%	60	2.52	17	1.5	360	285	ELF0607RA-270□-PF
33	±10, ±5%	60	2.52	16	1.7	330	265	ELF0607RA-330□-PF
39	±10, ±5%	60	2.52	14	1.8	300	255	ELF0607RA-390□-PF
47	±10, ±5%	60	2.52	13	2.1	270	240	ELF0607RA-470□-PF
56	±10, ±5%	60	2.52	12	2.3	250	230	ELF0607RA-560□-PF

*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 □: 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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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	
68	$\pm 10, \pm 5\%$	60	2.52	11	2.5	230	220	ELF0607RA-680□*2-PF
82	$\pm 10, \pm 5\%$	60	2.52	9.8	2.8	210	205	ELF0607RA-820□-PF
100	$\pm 10, \pm 5\%$	55	0.796	8.9	3.1	200	195	ELF0607RA-101□-PF
120	$\pm 10, \pm 5\%$	40	0.796	8	3.4	175	185	ELF0607RA-121□-PF
150	$\pm 10, \pm 5\%$	40	0.796	7.2	3.9	165	175	ELF0607RA-151□-PF
180	$\pm 10, \pm 5\%$	40	0.796	6.6	4.3	150	165	ELF0607RA-181□-PF
220	$\pm 10, \pm 5\%$	40	0.796	6	4.7	140	160	ELF0607RA-221□-PF
270	$\pm 10, \pm 5\%$	40	0.796	5.3	5.3	125	150	ELF0607RA-271□-PF
330	$\pm 10, \pm 5\%$	40	0.796	4.8	6	115	140	ELF0607RA-331□-PF
390	$\pm 10, \pm 5\%$	40	0.796	4.4	6.6	105	135	ELF0607RA-391□-PF
470	$\pm 10, \pm 5\%$	40	0.796	4	7.4	97	125	ELF0607RA-471□-PF
560	$\pm 10, \pm 5\%$	40	0.796	3.8	8.3	90	120	ELF0607RA-561□-PF
680	$\pm 10, \pm 5\%$	40	0.796	3.5	13.5	82	94	ELF0607RA-681□-PF
820	$\pm 10, \pm 5\%$	40	0.796	3.2	15.5	75	88	ELF0607RA-821□-PF
1000	$\pm 10, \pm 5\%$	30	0.252	2.9	18	68	82	ELF0607RA-102□-PF
1200	$\pm 10, \pm 5\%$	30	0.252	2.7	21	63	76	ELF0607RA-122□-PF
1500	$\pm 10, \pm 5\%$	30	0.252	2.4	25	57	69	ELF0607RA-152□-PF
1800	$\pm 10, \pm 5\%$	30	0.252	2.2	29	52	64	ELF0607RA-182□-PF
2200	$\pm 10, \pm 5\%$	30	0.252	2	34	48	59	ELF0607RA-222□-PF
2700	$\pm 10, \pm 5\%$	30	0.252	1.8	40	43	55	ELF0607RA-272□-PF

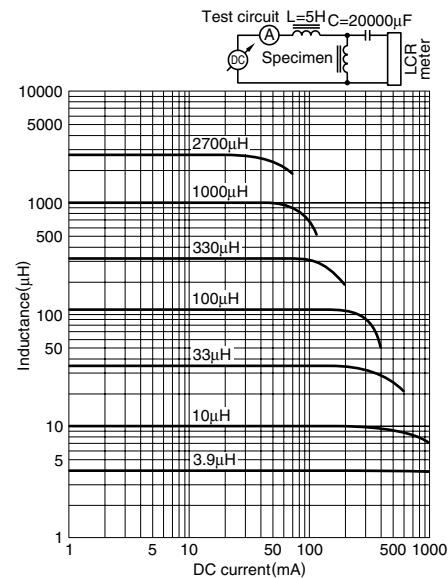
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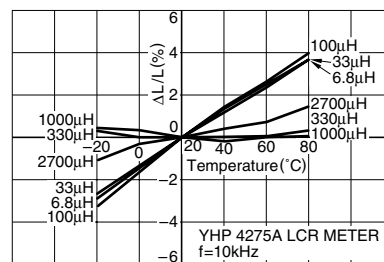
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TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS

