Inductors

For General Applications
Radial

ELF Series ELF1010 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.

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	1010	RR-	101	K	-3
(1)	(2)	(3)	(4)	(5)	(6)

(1)Series name

(2)Dimensions

1010	ø10.5×10.5mm (lead pitch 5mm)

(3)Packaging style

RR	Reel

(4)Inductance value

101	100μH
102	1000μH

(5)Inductance tolerance

J	±5%
K	±10%

(6)TDK internal code

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

PACKAGING STYLE AND QUANTITIES

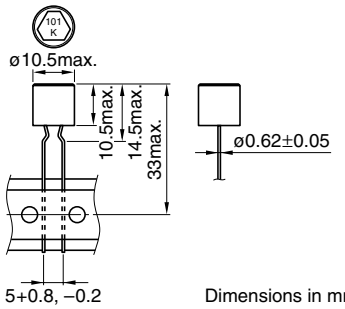
Packaging style	Quantity
Reel	300 pieces/reel

Inductors

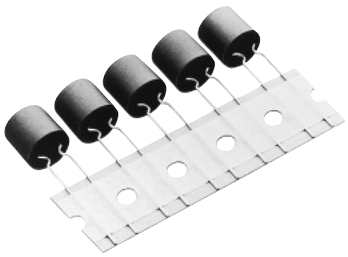
For General Applications
Radial

ELF Series ELF1010 Type

REEL TAPING STYLE
SHAPES AND DIMENSIONS



Dimensions in mm



ELECTRICAL CHARACTERISTICS

Inductance (µH)	Inductance tolerance	Q min.	Test frequency L, Q (kHz)	Self-resonant frequency (MHz)ref.	DC resistance (Ω)max.	Rated current (mA)*1max.		Part No.
						Based on inductance change	Based on temperature rise	
100	±10, ±5%	50	796	4.7	0.66	580	425	ELF1010RR-101X*2
120	±10, ±5%	50	796	4.2	0.73	530	405	ELF1010RR-121X
150	±10, ±5%	50	796	3.8	0.81	470	430	ELF1010RR-151X
180	±10, ±5%	50	796	3.5	0.89	430	365	ELF1010RR-181X
220	±10, ±5%	50	796	3.1	0.98	390	350	ELF1010RR-221X
270	±10, ±5%	50	796	2.8	1.05	350	340	ELF1010RR-271X
330	±10, ±5%	50	796	2.6	1.15	320	325	ELF1010RR-331X
390	±10, ±5%	50	796	2.4	1.5	290	285	ELF1010RR-391X
470	±10, ±5%	50	796	2.2	1.65	270	270	ELF1010RR-471X
560	±10, ±5%	40	796	2	1.9	245	250	ELF1010RR-561X
680	±10, ±5%	40	796	1.8	2.2	220	235	ELF1010RR-681X
820	±10, ±5%	40	796	1.6	2.6	200	215	ELF1010RR-821X
1000	±10, ±5%	60	252	1.5	3	180	200	ELF1010RR-102X
1200	±10, ±5%	60	252	1.4	3.4	170	190	ELF1010RR-122X
1500	±10, ±5%	60	252	1.2	4	150	175	ELF1010RR-152X
1800	±10, ±5%	60	252	1.1	4.6	135	160	ELF1010RR-182X
2200	±10, ±5%	60	252	1	5.4	125	150	ELF1010RR-222X
2700	±10, ±5%	60	252	0.9	6.9	110	130	ELF1010RR-272X
3300	±10, ±5%	60	1*3/252*4	0.81	8.2	100	120	ELF1010RR-332X
3900	±10, ±5%	60	1/252	0.75	11	92	105	ELF1010RR-392X
4700	±10, ±5%	60	1/252	0.68	14	84	93	ELF1010RR-472X
5600	±10, ±5%	60	1/252	0.63	19	77	79	ELF1010RR-562X
6800	±10, ±5%	60	1/252	0.57	22	70	74	ELF1010RR-682X
8200	±10, ±5%	60	1/252	0.52	25	63	69	ELF1010RR-822X
10000	±10, ±5%	40	1/79.6	0.47	34	57	59	ELF1010RR-103X
12000	±10, ±5%	40	1/79.6	0.43	38	53	56	ELF1010RR-123X
15000	±10, ±5%	40	1/79.6	0.38	43	47	53	ELF1010RR-153X
18000	±10, ±5%	40	1/79.6	0.34	47	43	51	ELF1010RR-183X
22000	±10, ±5%	40	1/79.6	0.31	65	39	43	ELF1010RR-223X
27000	±10, ±5%	40	1/79.6	0.28	74	35	40	ELF1010RR-273X
33000	±10, ±5%	40	1/79.6	0.25	115	32	32	ELF1010RR-333X
39000	±10, ±5%	40	1/79.6	0.23	125	29	31	ELF1010RR-393X
47000	±10, ±5%	40	1/79.6	0.22	145	26	29	ELF1010RR-473X

*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, K(±10%) or J(±5%)
*3 for L
*4 for Q

- ELF1010(100µH to 2.7mH) L, Q, Rdc, SRF: are the same as ELF0505, 0607 and 0708
- ELF1010(3.3 to 100mH) L:LCR METER MODEL 4261A YHP, or equivalent Q, Rdc, SRF:are the same as ELF0505, 0607 and 0708
- L measuring instrument differs from others, because measurement frequency is 1kHz.

Inductors

For General Applications
Radial

ELF Series ELF1010 Type

ELECTRICAL CHARACTERISTICS

Inductance (μH)	Inductance tolerance	Q min.	Test frequency L, Q (kHz)	Self-resonant frequency (MHz)ref.	DC resistance (Ω)max.	Rated current (mA)*1max. Based on inductance change	Rated current (mA)*1max. Based on temperature rise	Part No.
56000	±10, ±5%	40	1*3/79.6*4	0.2	190	24	25	ELF1010RR-563X*2
68000	±10, ±5%	30	1/79.6	0.18	215	22	24	ELF1010RR-683X
82000	±10, ±5%	30	1/79.6	0.17	290	20	20	ELF1010RR-823X
100000	±10, ±5%	30	1/79.6	0.15	330	18	19	ELF1010RR-104X

*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, K(±10%) or J(±5%)

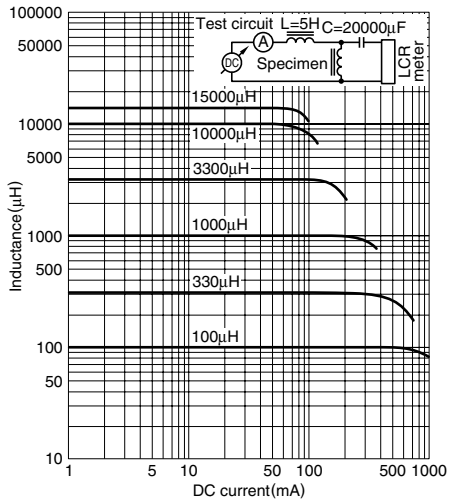
*3 for L

*4 for Q

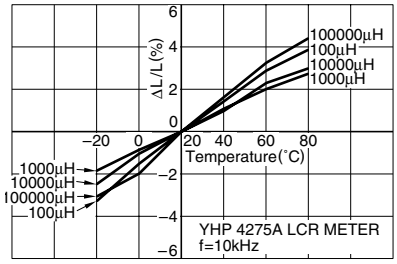
- ELF1010(100μH to 2.7mH) L, Q, Rdc, SRF: are the same as ELF0505, 0607 and 0708
- ELF1010(3.3 to 100mH) L:LCR METER MODEL 4261A YHP, or equivalent Q, Rdc, SRF:are the same as ELF0505, 0607 and 0708
- L measuring instrument differs from others, because measurement frequency is 1kHz.

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE CHANGE vs. DC SUPERPOSITION CHARACTERISTICS



INDUCTANCE CHANGE vs. TEMPERATURE CHARACTERISTICS



Q vs. FREQUENCY CHARACTERISTICS