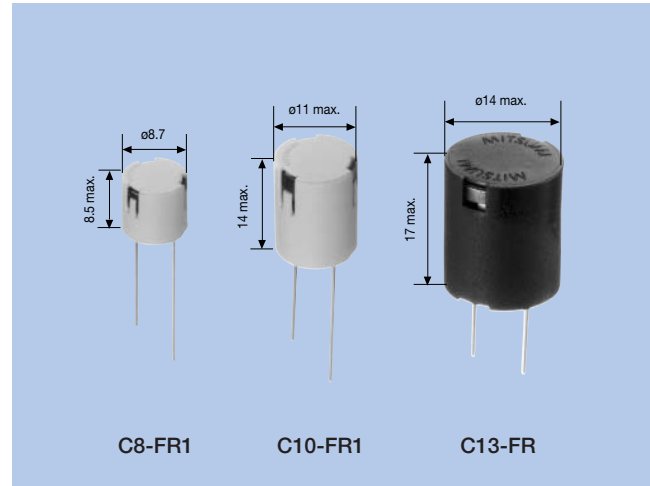


# Power Inductors C8-FR1, C10-FR1, C13-FR Series

Coils, Filters

## OUTLINE

Power inductors for preventing the diffusion of noises generated from power circuits and suppressing noise components coming through the power lines.



## FEATURES

1. Power inductors are made of materials resistible to a large current (5.0A max. to 9.0A max.) .
2. Winding start terminal can be indicated.
3. These products can be packaged by radial taping for delivery.

## USES

Power circuits of TV, VCR, display monitors, computers, and other units.

Power circuits of air conditioners, electric rice boilers, refrigerators, washing machines, cleaners, pots, and other devices.

## SPECIFICATIONS

Type	Inductance	Rated Current (A)	DC Resistance ( $\Omega$ )	Operational Frequency (kHz)	Pcs/Reel
C8-FR1 Series	2.2 $\mu$ H~3.3mH	0.14~5.00 (L=2.2 $\mu$ H)	0.018~11.0 (L=3.3mH)	10~500	1000
C10-FR1 Series	3.3 $\mu$ H~150mH	0.048~9.00 (L=3.3 $\mu$ H)	0.019~300.0 (L=150mH)	10~500	500
C13-FR Series	10 $\mu$ H~10mH	0.22~7.60 (L=10 $\mu$ H)	0.023~10.0 (L=10mH)	10~500	500

**DATA LIST (C8-FR1 Series)**

Distinctive Name	Marking	Inductance		Unloaded Q		Self Resonant Frequency	DC Resistance	Rated Current *		Remarks
		(μH) (f=1kHz)	Tolerance (%)	min.	Measured Frequency (MHz)	(MHz) min.	(Ω) max.	(A)		
								L	Temperature	
DE	2R2	2.2	±20	10	7.96	40	0.018	5.0	2.9	
DG	3R3	3.3	±15	10	7.96	34	0.021	4.5	2.7	
DH	3R9	3.9	±15	10	7.96	30	0.028	4.1	2.6	
DJ	4R7	4.7	±15	10	7.96	27	0.030	3.7	2.5	
DK	5R6	5.6	±15	10	7.96	23	0.032	3.4	2.4	
DL	6R8	6.8	±15	10	7.96	21	0.035	3.1	2.3	
DM	8R2	8.2	±15	10	7.96	19	0.038	2.6	2.1	
EA	100	10	±10	20	2.52	17	0.042	2.5	2.0	
EB	120	12	±10	20	2.52	15	0.057	2.3	1.9	
EC	150	15	±10	20	2.52	13	0.066	2.0	1.8	
ED	180	18	±10	20	2.52	12	0.071	1.8	1.6	
EE	220	22	±10	20	2.52	10	0.087	1.6	1.3	
EF	270	27	±10	20	2.52	9.0	0.14	1.4	1.2	
EG	330	33	±10	20	2.52	8.0	0.15	1.3	1.2	
EH	390	39	±10	20	2.52	7.1	0.17	1.2	1.1	
EJ	470	47	±10	20	2.52	6.5	0.18	1.1	1.0	
EK	560	56	±10	20	2.52	5.9	0.21	1.0	0.96	
EL	680	68	±10	20	2.52	5.4	0.24	0.91	0.90	
EM	820	82	±10	20	2.52	4.8	0.28	0.83	0.80	
FA	101	100	±10	20	0.796	4.4	0.32	0.75	0.72	
FB	121	120	±10	20	0.796	4.0	0.36	0.68	0.63	
FC	151	150	±10	20	0.796	3.6	0.44	0.61	0.57	
FD	181	180	±10	20	0.796	3.2	0.66	0.56	0.53	
FE	221	220	±10	15	0.796	2.9	0.73	0.50	0.50	
FF	271	270	±10	15	0.796	2.6	0.85	0.45	0.45	
FG	331	330	±10	15	0.796	2.4	1.1	0.41	0.41	
FH	391	390	±10	15	0.796	2.1	1.3	0.37	0.38	
FJ	471	470	±10	15	0.796	2.0	1.8	0.34	0.36	
FK	561	560	±10	15	0.796	1.8	1.9	0.31	0.33	
FL	681	680	±10	15	0.796	1.6	2.2	0.28	0.29	
FM	821	820	±10	15	0.796	1.4	2.9	0.25	0.26	
GA	102	1,000	±10	30	0.252	1.3	3.3	0.23	0.24	
GB	122	1,200	±10	30	0.252	1.2	4.4	0.21	0.22	
GC	152	1,500	±10	30	0.252	1.1	5.1	0.18	0.19	
GD	182	1,800	±10	30	0.252	1.0	5.8	0.16	0.16	
GE	222	2,200	±10	50	0.252	0.88	8.0	0.14	0.15	
GF	272	2,700	±10	50	0.252	0.79	9.5	0.14	0.13	
GG	332	3,300	±10	50	0.252	0.71	11.0	0.14	0.12	

\* Rated current (L value) : A current value obtained when the inductance value has dropped by 10% of the initial value in DC superimposition characteristic.

Rated current (temperature) : A current value where the temperature rise becomes 20°C when flowing a current at normal temperature.

**DATA LIST (C10-FR1 Series)**

Distinctive Name	Marking	Inductance		Unloaded Q		Self Resonant Frequency	DC Resistance	Rated Current *		Remarks
		(μH) (f=1kHz)	Tolerance (%)	min.	Measured Frequency (MHz)	(MHz) min.	(Ω) max.	(A)		
								L	Temperature	
DG	3R3	3.3	±20	20	7.96	46	0.019	9.0	4.2	
DH	3R9	3.9	±20	20	7.96	40	0.022	8.0	4.1	
DJ	4R7	4.7	±20	20	7.96	38	0.024	7.1	4.0	
DK	5R6	5.6	±20	20	7.96	34	0.025	6.7	3.8	
DL	6R8	6.8	±20	20	7.96	30	0.028	6.3	3.4	
DM	8R2	8.2	±20	20	7.96	24	0.031	5.5	3.3	
EA	100	10	±10	50	2.52	19	0.034	4.7	3.2	
EB	120	12	±10	50	2.52	16	0.038	4.4	2.8	
EC	150	15	±10	60	2.52	12	0.042	4.3	2.6	
ED	180	18	±10	60	2.52	9.2	0.046	3.9	2.4	
EE	220	22	±10	60	2.52	8.6	0.061	3.4	2.1	
EF	270	27	±10	60	2.52	7.1	0.069	3.0	2.0	
EG	330	33	±10	50	2.52	6.8	0.078	2.7	1.9	
EH	390	39	±10	50	2.52	6.7	0.085	2.5	1.8	
EJ	470	47	±10	40	2.52	6.2	0.093	2.3	1.7	
EK	560	56	±10	40	2.52	5.2	0.10	2.1	1.6	
EL	680	68	±10	40	2.52	4.6	0.12	2.0	1.5	
EM	820	82	±10	40	2.52	4.2	0.13	1.8	1.4	
FA	101	100	±10	40	0.796	3.8	0.18	1.5	1.2	
FB	121	120	±10	40	0.796	3.2	0.25	1.4	1.0	
FC	151	150	±10	40	0.796	2.9	0.29	1.3	0.95	
FD	181	180	±10	40	0.796	2.6	0.40	1.2	0.80	
FE	221	220	±10	40	0.796	2.3	0.44	1.1	0.75	
FF	271	270	±10	40	0.796	2.1	0.50	1.0	0.70	
FG	331	330	±10	30	0.796	2.0	0.56	0.91	0.68	
FH	391	390	±10	30	0.796	1.8	0.62	0.82	0.63	
FJ	471	470	±10	30	0.796	1.7	0.84	0.77	0.57	
FK	561	560	±10	30	0.796	1.5	0.93	0.70	0.52	
FL	681	680	±10	30	0.796	1.4	1.0	0.66	0.48	
FM	821	820	±10	30	0.796	1.3	1.4	0.52	0.42	
GA	102	1,000	±5	50	0.252	1.2	1.8	0.49	0.41	
GB	122	1,200	±5	50	0.252	0.87	1.8	0.49	0.41	
GC	152	1,500	±5	50	0.252	0.83	2.7	0.40	0.30	
GD	182	1,800	±5	50	0.252	0.75	3.0	0.37	0.29	
GE	222	2,200	±5	50	0.252	0.70	3.9	0.33	0.25	
GF	272	2,700	±5	50	0.252	0.67	4.3	0.32	0.24	
GG	332	3,300	±5	50	0.252	0.56	5.8	0.30	0.21	

\* Rated current (L value) : A current value obtained when the inductance value has dropped by 10% of the initial value in DC superimposition characteristic.

Rated current (temperature) : A current value where the temperature rise becomes 20°C when flowing a current at normal temperature.

**DATA LIST (C10-FR1 Series)**

Distinctive Name	Marking	Inductance		Unloaded Q		Self Resonant Frequency	DC Resistance	Rated Current *		Remarks
		(μH) (f=1kHz)	Tolerance (%)	min.	Measured Frequency (MHz)	(MHz) min.	(Ω) max.	(A)		
								L	Temperature	
GH	392	3,900	±5	50	0.252	540	6.4	0.28	0.20	
GJ	472	4,700	±5	50	0.252	490	7.1	0.25	0.19	
GK	562	5,600	±5	50	0.252	410	9.0	0.22	0.17	
GL	682	6,800	±5	50	0.252	380	10	0.21	0.16	
GM	822	8,200	±5	50	0.252	360	12	0.19	0.15	
HA	103	10,000	±5	60	0.0796	290	19	0.15	0.12	
HB	123	12,000	±5	60	0.0796	270	21	0.14	0.11	
HC	153	15,000	±5	60	0.0796	240	34	0.13	0.090	
HD	183	18,000	±5	60	0.0796	210	38	0.12	0.081	
HE	223	22,000	±5	60	0.0796	200	43	0.11	0.075	
HF	273	27,000	±5	60	0.0796	150	67	0.098	0.060	
HG	333	33,000	±5	40	0.0796	140	76	0.094	0.056	
HH	393	39,000	±5	40	0.0796	130	84	0.084	0.053	
HJ	473	47,000	±5	40	0.0796	120	96	0.075	0.050	
HK	563	56,000	±5	40	0.0796	100	170	0.072	0.036	
HL	683	68,000	±5	30	0.0796	95	200	0.071	0.035	
HM	823	82,000	±5	30	0.0796	88	210	0.063	0.033	
JA	104	100,000	±5	30	0.0252	85	240	0.058	0.031	
JB	124	120,000	±5	30	0.0252	70	260	0.053	0.030	
JC	154	150,000	±5	30	0.0252	69	300	0.048	0.028	

\* Rated current (L value) : A current value obtained when the inductance value has dropped by 10% of the initial value in DC superimposition characteristic.

Rated current (temperature) : A current value where the temperature rise becomes 20°C when flowing a current at normal temperature.

**DATA LIST (C13-FR Series)**

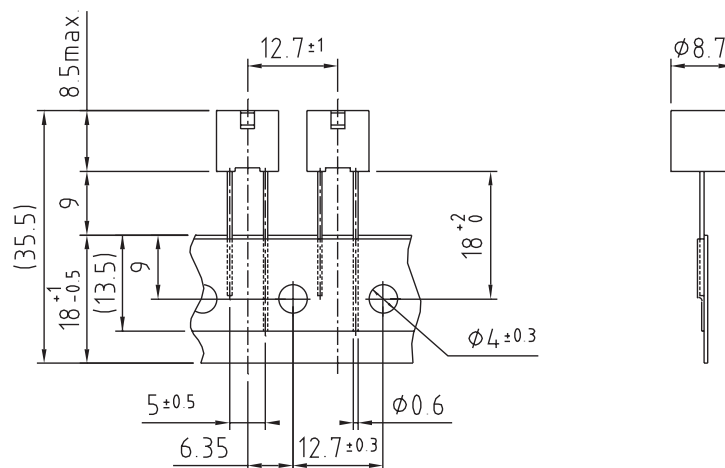
Distinctive Name	Marking	Inductance		Unloaded Q		Self Resonant Frequency	DC Resistance	Rated Current *		Remarks
		(μH) (f=1kHz)	Tolerance (%)	min.	Measured Frequency (MHz)	(MHz) min.	(Ω) max.	(A)		
								L	Temperature	
EA	100	10	±10	60	2.52	19	0.023	7.6	4.5	
EC	150	15	±10	60	2.52	12	0.028	6.2	4.0	
EE	220	22	±10	60	2.52	7.6	0.035	4.9	3.4	
EG	330	33	±10	50	2.52	6.9	0.043	4.1	3.2	
EJ	470	47	±10	40	2.52	5.6	0.052	3.5	2.8	
EL	680	68	±10	30	2.52	4.4	0.070	3.0	2.4	
FA	101	100	±10	50	0.796	3.3	0.12	2.2	2.0	
FC	151	150	±10	50	0.796	2.6	0.19	1.9	1.5	
FE	221	220	±10	40	0.796	2.2	0.23	1.5	1.3	
FG	331	330	±10	30	0.796	1.8	0.35	1.3	1.1	
FJ	471	470	±10	20	0.796	1.5	0.43	1.1	0.90	
FL	681	680	±10	20	0.796	1.2	0.61	0.95	0.80	
GA	102	1,000	±5	30	0.252	1.0	1.2	0.74	0.60	
GC	152	1,500	±5	30	0.252	0.83	1.8	0.60	0.45	
GE	222	2,200	±5	20	0.252	0.70	2.2	0.51	0.40	
GG	332	3,300	±5	20	0.252	0.60	3.4	0.41	0.33	
GJ	472	4,700	±5	20	0.252	0.43	4.7	0.39	0.28	
GL	682	6,800	±5	20	0.252	0.38	5.6	0.31	0.25	
HA	103	10,000	±5	70	0.0796	0.30	10	0.22	0.19	

\* Rated current (L value) : A current value obtained when the inductance value has dropped by 10% of the initial value in DC superimposition characteristic.

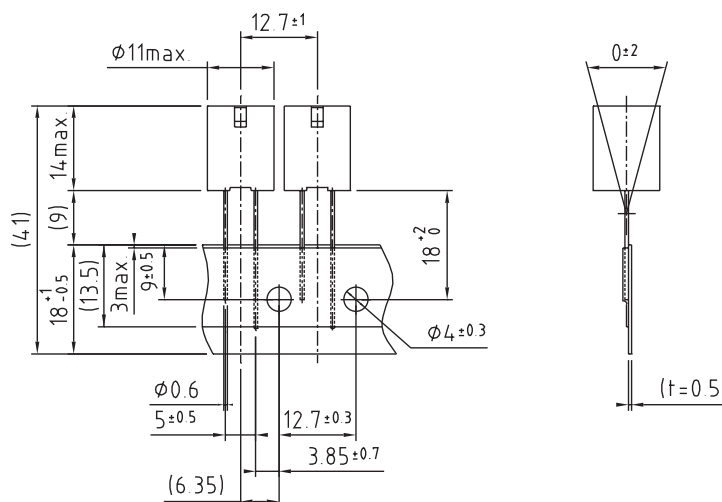
Rated current (temperature) : A current value where the temperature rise becomes 20°C when flowing a current at normal temperature.

# DIMENSIONS

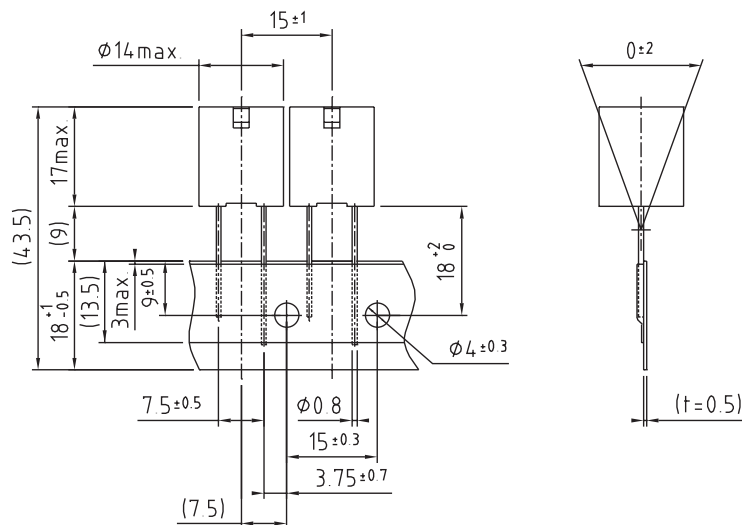
## C8-FR1 Series



## C10-FR1 Series



## C13-FR Series



Unit : mm