

FEATURES

- Low profile and thin thickness.
- Monolithic structure for high reliability.
- No cross coupling due to magnetic shield.
- Excellent solderability and heat resistance for reflow soldering.
- Operating temperature: -40°C ~ +85°C.



APPLICATIONS

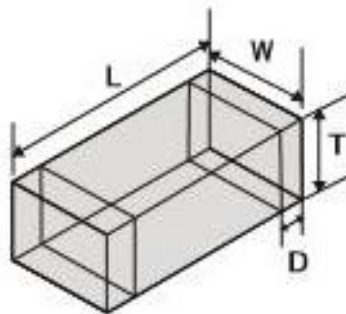
- Widely use in Communications, Video and audio equipment, Computer, Remote control, etc.

PRODUCT IDENTIFICATION

MCFI 201209 S 47N K T
 (1) (2) (3) (4) (5) (6)

- (1) Series name
- (2) Product dimensions
- (3) Feature Type (S: Standard Type)
- (4) Inductance Value (47N: 0.047μH, R10: 0.10μH, 1R0: 1.0μH)
- (5) Inductance Tolerance (K: 10%, M: 20%)
- (6) Package (T: Tape & Reel)

SHAPE AND DIMENSIONS



Unit:mm

Series	L	W	T	D
MCFI100505	1.0±0.15	0.5±0.15	0.5±0.15	0.25±0.10
MCFI160808	1.6±0.20	0.8±0.20	0.8±0.20	0.3±0.20
MCFI201209	2.0±0.20	1.2±0.20	0.9±0.20	0.5±0.30
MCFI321609	3.2±0.20	1.6±0.20	0.9±0.20	0.5±0.30
MCFI321611	3.2±0.20	1.6±0.20	1.1±0.20	0.5±0.30
MCFI322513	3.2±0.20	2.5±0.20	1.3±0.20	0.5±0.30
MCFI453215	4.5±0.20	3.2±0.20	1.5±0.20	0.5±0.30

SPECIFICATIONS

MCFI100505 Series

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Test Frequency (MHz)	DCR Max. (Ω)	SRF Min. (MHz)	Irms (mA)
MCFI100505S47NKT	0.047	10	10	50	0.45	220	25
MCFI100505S56NKT	0.056	10	10	50	0.45	210	25
MCFI100505S68NKT	0.068	10	10	50	0.45	210	25
MCFI100505S82NKT	0.082	10	10	50	0.45	200	25
MCFI100505SR10KT	0.10	10	15	25	0.7	200	25
MCFI100505SR12KT	0.12	10	15	25	0.7	165	25
MCFI100505SR15KT	0.15	10	15	25	0.8	140	25
MCFI100505SR18KT	0.18	10	15	25	0.8	120	25
MCFI100505SR22KT	0.22	10	15	25	1.0	110	25
MCFI100505SR27KT	0.27	10	15	25	1.2	95	25
MCFI100505SR33KT	0.33	10	15	25	1.2	85	25
MCFI100505SR39KT	0.39	10	15	10	1.3	70	20
MCFI100505SR47KT	0.47	10	15	10	1.5	68	20
MCFI100505SR56KT	0.56	10	15	10	2.0	55	20
MCFI100505SR68KT	0.68	10	15	10	2.3	50	20
MCFI100505SR82KT	0.82	10	15	10	3.0	45	18
MCFI100505S1R0KT	1.0	10	20	10	0.9	40	25
MCFI100505S1R2KT	1.5	10	20	10	1.2	35	25
MCFI100505S1R5KT	1.8	10	20	10	1.3	30	20
MCFI100505S1R8KT	2.2	10	20	10	1.4	30	20

MCFI160808 Series

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Test Frequency (MHz)	DCR Max. (Ω)	SRF Min. (MHz)	Irms (mA)
MCFI160808S47NKT	0.047	10	15	50	0.20	260	50
MCFI160808S56NKT	0.056	10	15	50	0.20	260	50
MCFI160808S68NKT	0.068	10	15	50	0.20	250	50
MCFI160808S82NKT	0.082	10	15	50	0.20	245	50
MCFI160808SR10KT	0.10	10	20	25	0.25	240	50
MCFI160808SR12KT	0.12	10	20	25	0.30	205	50
MCFI160808SR15KT	0.15	10	20	25	0.30	180	50
MCFI160808SR18KT	0.18	10	20	25	0.30	165	50
MCFI160808SR22KT	0.22	10	20	25	0.40	150	50
MCFI160808SR27KT	0.27	10	20	25	0.45	136	50
MCFI160808SR33KT	0.33	10	20	25	0.50	125	50
MCFI160808SR39KT	0.39	10	20	25	0.60	110	50
MCFI160808SR47KT	0.47	10	20	25	0.70	105	50

MCFI160808SR56KT	0.56	10	20	25	0.70	95	50
MCFI160808SR68KT	0.68	10	20	25	0.90	90	50
MCFI160808SR82KT	0.82	10	20	25	1.00	85	50
MCFI160808S1R0KT	1.0	10	25	10	0.50	75	25
MCFI160808S1R2KT	1.2	10	25	10	0.55	65	25
MCFI160808S1R5KT	1.5	10	25	10	0.70	60	25
MCFI160808S1R8KT	1.8	10	25	10	0.75	55	25
MCFI160808S2R2KT	2.2	10	25	10	0.80	50	25
MCFI160808S2R7KT	2.7	10	25	10	0.90	45	15
MCFI160808S3R3KT	3.3	10	25	10	1.00	40	15
MCFI160808S3R9KT	3.9	10	25	10	1.30	35	15
MCFI160808S4R7KT	4.7	10	25	10	1.50	33	15
MCFI160808S5R6KT	5.6	10	12	4	1.55	22	5
MCFI160808S6R8KT	6.8	10	12	4	1.55	20	5
MCFI160808S8R2KT	8.2	10	12	4	1.65	18	5
MCFI160808S100KT	10	10	20	2	1.75	17	3
MCFI160808S120KT	12	10	20	2	1.85	15	3
MCFI160808S150MT	15	20	20	1	2.50	14	1
MCFI160808S180MT	18	20	20	1	2.70	13	1
MCFI160808S220MT	22	20	20	1	3.00	12	1

MCFI201209 Series

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Test Frequency (MHz)	DCR Max. (Ω)	SRF Min. (MHz)	Irms (mA)
MCFI201209S47NKT	0.047	10	25	50	0.15	320	300
MCFI201209S56NKT	0.056	10	25	50	0.15	320	300
MCFI201209S68NKT	0.068	10	25	50	0.20	280	300
MCFI201209S82NKT	0.082	10	25	50	0.20	280	300
MCFI201209SR10KT	0.10	10	20	25	0.20	235	250
MCFI201209SR12KT	0.12	10	20	25	0.25	220	250
MCFI201209SR15KT	0.15	10	20	25	0.25	200	250
MCFI201209SR18KT	0.18	10	20	25	0.30	185	250
MCFI201209SR22KT	0.22	10	20	25	0.30	170	250
MCFI201209SR27KT	0.27	10	20	25	0.40	150	250
MCFI201209SR33KT	0.33	10	20	25	0.40	145	250
MCFI201209SR39KT	0.39	10	25	25	0.50	135	200
MCFI201209SR47KT	0.47	10	25	25	0.50	125	200
MCFI201209SR56KT	0.56	10	25	25	0.60	115	150
MCFI201209SR68KT	0.68	10	25	25	0.65	105	150
MCFI201209SR82KT	0.82	10	25	25	0.70	100	150
MCFI201209S1R0KT	1.0	10	35	10	0.40	75	50
MCFI201209S1R2KT	1.2	10	35	10	0.40	65	50

MCFI201209S1R5KT	1.5	10	35	10	0.40	60	50
MCFI201209S1R8KT	1.8	10	35	10	0.40	55	50
MCFI201209S2R2KT	2.2	10	35	10	0.60	50	50
MCFI201209S2R7KT	2.7	10	35	10	0.60	45	50
MCFI201209S3R3KT	3.3	10	35	10	0.60	41	50
MCFI201209S3R9KT	3.9	10	35	10	0.80	38	50
MCFI201209S4R7KT	4.7	10	35	10	0.90	35	30
MCFI201209S5R6KT	5.6	10	30	4	1.00	32	15
MCFI201209S6R8KT	6.8	10	30	4	1.05	29	15
MCFI201209S8R2KT	8.2	10	30	4	1.05	26	15
MCFI201209S100KT	10	10	30	2	1.15	24	15
MCFI201209S120KT	12	10	30	2	1.15	22	15
MCFI201209S150KT	15	10	25	1	1.15	19	5
MCFI201209S180KT	18	10	25	1	1.20	18	5
MCFI201209S220KT	22	10	25	1	1.20	16	5
MCFI201209S270KT	27	10	25	1	1.50	16	5
MCFI201209S330MT	33	20	25	1	1.50	16	5
MCFI201209S390MT	39	20	25	1	1.50	16	5
MCFI201209S470MT	47	20	25	1	1.70	15	5
MCFI201209S560MT	56	20	25	1	2.60	10	5
MCFI201209S680MT	68	20	25	1	2.60	10	5

MCFI3216 Series

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Test Frequency (MHz)	DCR Max. (Ω)	SRF Min. (MHz)	Irms (mA)
MCFI321609S47NKT	0.047	10	30	50	0.15	320	300
MCFI321609S56NKT	0.056	10	30	50	0.20	320	300
MCFI321609S68NKT	0.068	10	30	50	0.25	280	300
MCFI321609S82NKT	0.082	10	30	50	0.25	280	300
MCFI321609SR10KT	0.10	10	25	25	0.25	235	250
MCFI321609SR12KT	0.12	10	25	25	0.25	220	250
MCFI321609SR15KT	0.15	10	25	25	0.25	200	250
MCFI321609SR18KT	0.18	10	25	25	0.30	185	250
MCFI321609SR22KT	0.22	10	25	25	0.30	170	250
MCFI321609SR27KT	0.27	10	25	25	0.30	150	250
MCFI321609SR33KT	0.33	10	25	25	0.30	145	250
MCFI321609SR39KT	0.39	10	30	25	0.50	135	200
MCFI321609SR47KT	0.47	10	30	25	0.50	125	200
MCFI321609SR56KT	0.56	10	30	25	0.50	115	150
MCFI321609SR68KT	0.68	10	30	25	0.50	105	150
MCFI321609SR82KT	0.82	10	30	25	0.60	100	150
MCFI321609S1R0KT	1.0	10	35	10	0.30	75	100

MCFI321609S1R2KT	1.2	10	35	10	0.40	65	100
MCFI321609S1R5KT	1.5	10	35	10	0.40	60	50
MCFI321609S1R8KT	1.8	10	35	10	0.40	55	50
MCFI321609S2R2KT	2.2	10	35	10	0.50	50	50
MCFI321609S2R7KT	2.7	10	35	10	0.50	45	50
MCFI321609S3R3KT	3.3	10	35	10	0.50	41	50
MCFI321609S3R9KT	3.9	10	35	10	0.60	38	50
MCFI321609S4R7KT	4.7	10	35	10	0.65	35	25
MCFI321609S5R6KT	5.6	10	35	4	0.80	32	25
MCFI321609S6R8KT	6.8	10	35	4	0.80	29	25
MCFI321609S8R2KT	8.2	10	35	4	0.80	26	25
MCFI321609S100KT	10	10	35	2	0.80	24	25
MCFI321609S120KT	12	10	35	2	0.90	22	15
MCFI321609S150KT	15	10	30	1	1.00	19	5
MCFI321609S180KT	18	10	30	1	1.00	18	5
MCFI321609S220KT	22	10	30	1	1.20	16	5
MCFI321609S270KT	27	10	30	1	1.20	14	5
MCFI321609S330KT	33	10	30	1	1.30	13	5
MCFI321609S390KT	39	10	30	1	1.30	13	5
MCFI321611S470KT	47	10	30	1	1.60	12	5
MCFI321611S560MT	56	20	30	1	1.80	12	5
MCFI321611S680MT	68	20	30	1	2.00	11	5
MCFI321611S820MT	82	20	30	1	2.40	11	5
MCFI321611S101MT	100	20	30	1	3.00	8	5

MCFI322513 Series

Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Test Frequency (MHz)	DCR Max. (Ω)	SRF Min. (MHz)	Irms (mA)
MCFI322513S1R0KT	1.0	10	40	10	0.2	70	600
MCFI322513S1R2KT	1.2	10	40	10	0.2	70	600
MCFI322513S1R5KT	1.5	10	40	10	0.3	70	500
MCFI322513S1R8KT	1.8	10	40	10	0.3	70	500
MCFI322513S2R2KT	2.2	10	40	10	0.3	50	500
MCFI322513S2R7KT	2.7	10	40	10	0.3	50	500
MCFI322513S3R3KT	3.3	10	40	10	0.4	50	500
MCFI322513S3R9KT	3.9	10	40	10	0.4	30	500
MCFI322513S4R7KT	4.7	10	40	10	0.5	30	500
MCFI322513S5R6KT	5.6	10	35	4	0.6	30	450
MCFI322513S6R8KT	6.8	10	35	4	0.6	20	450
MCFI322513S8R2KT	8.2	10	35	4	0.7	20	400
MCFI322513S100KT	10	10	35	2	0.7	20	400
MCFI322513S120KT	12	10	35	2	0.7	20	400

MCFI322513S150KT	15	10	35	1	0.7	20	300
MCFI322513S180KT	18	10	35	1	0.7	10	300
MCFI322513S220KT	22	10	35	1	0.75	10	250
MCFI322513S270KT	27	10	35	1	0.75	10	250
MCFI322513S330KT	33	10	35	1	0.8	10	250
MCFI322513S390KT	39	10	35	1	0.8	10	250
MCFI322513S470KT	47	10	35	1	1.0	10	200
MCFI322513S560MT	56	10	35	1	1.2	5	200
MCFI322513S680MT	68	10	35	1	1.3	5	150
MCFI322513S820MT	82	10	35	1	1.5	5	150
MCFI322513S101MT	100	10	35	1	1.5	5	150
MCFI322513S121MT	120	10	35	1	1.8	5	150

MCFI453215 Series

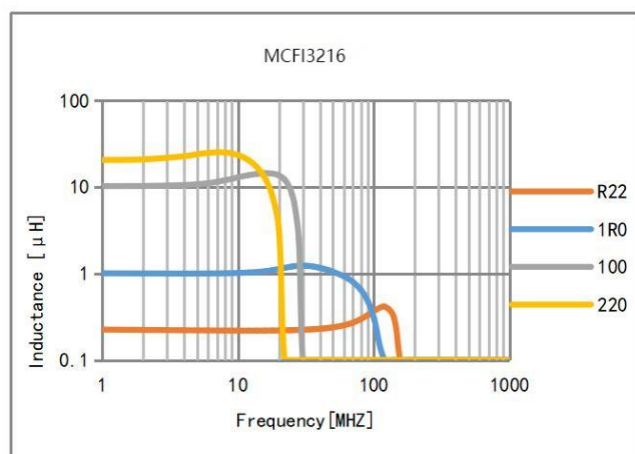
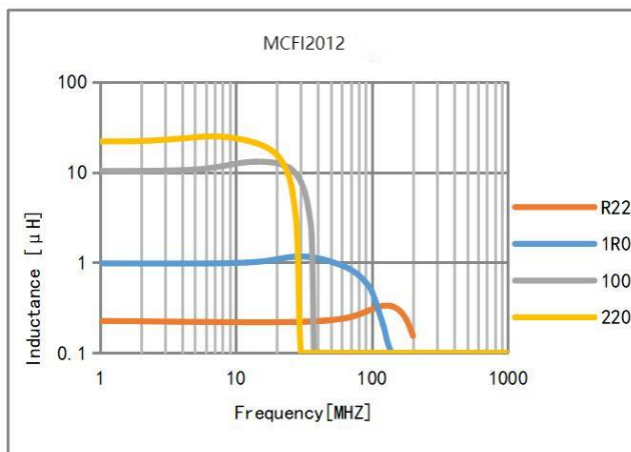
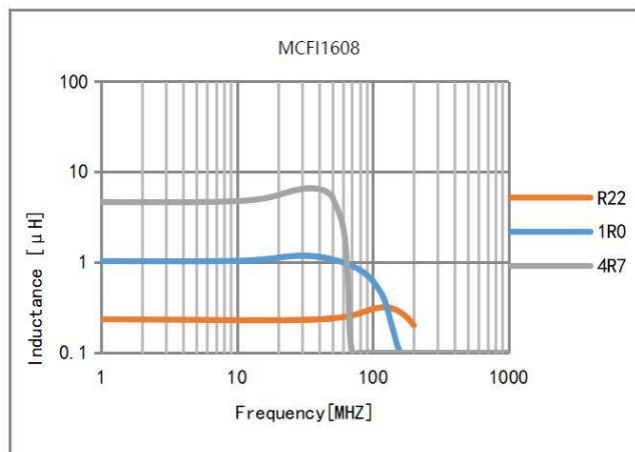
Part Number	Inductance (μ H)	Tolerance (%)	Q Min.	Test Frequency (MHz)	DCR Max. (Ω)	SRF Min. (MHz)	Irms (mA)
MCFI453215S1R0KT	1.0	10	35	10	0.55	50	650
MCFI453215S1R2KT	1.2	10	35	10	0.55	50	650
MCFI453215S1R5KT	1.5	10	35	10	0.55	45	600
MCFI453215S1R8KT	1.8	10	35	10	0.65	45	600
MCFI453215S2R2KT	2.2	10	35	10	0.65	40	500
MCFI453215S2R7KT	2.7	10	35	10	0.70	40	500
MCFI453215S3R3KT	3.3	10	35	10	0.75	35	500
MCFI453215S3R9KT	3.9	10	35	10	0.80	35	500
MCFI453215S4R7KT	4.7	10	30	10	0.90	25	500
MCFI453215S5R6KT	5.6	10	30	4	0.90	20	500
MCFI453215S6R8KT	6.8	10	30	4	1.00	18	500
MCFI453215S8R2KT	8.2	10	30	4	1.00	17	450
MCFI453215S100KT	10	10	30	2	1.00	16	450
MCFI453215S120KT	12	10	35	2	1.00	15	450
MCFI453215S150KT	15	10	35	1	1.00	14	400
MCFI453215S180KT	18	10	35	1	1.00	13	400
MCFI453215S220KT	22	10	35	1	1.30	12	300
MCFI453215S270KT	27	10	35	1	1.30	10	300
MCFI453215S330KT	33	10	40	1	1.50	10	250
MCFI453215S390KT	39	10	40	1	1.50	10	250
MCFI453215S470KT	47	10	40	1	1.65	8	250
MCFI453215S560KT	56	10	40	1	1.80	8	250
MCFI453215S680MT	68	20	40	1	2.00	6	200
MCFI453215S820MT	82	20	40	1	2.30	6	200
MCFI453215S101MT	100	20	40	1	2.30	6	150
MCFI453215S121MT	120	20	40	1	2.50	6	150

Note:

I_{rms}: DC current that causes the temperature rise($\Delta T=40^{\circ}\text{C}$) from 25°C ambient.

CHARACTERISTICS CURVES

Inductance VS. Frequency



Q Factor VS. Frequency

