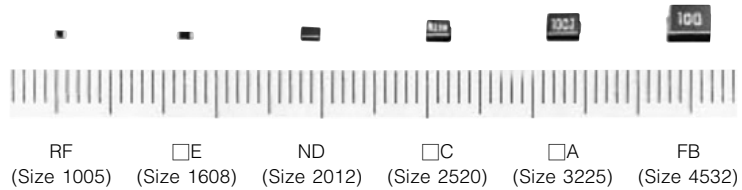


Chip Inductors

Japan

Series: **Chip**

Type: **RF, RE, ND,
NC, NA, FC,
FA, FB, SA,
PE, PC, PA,
EA**



Non winding (RF, □E) and wire wound type chip inductors for automatic mounting and high-density mounting

Industrial Property: Patents 6 (incl. pending)

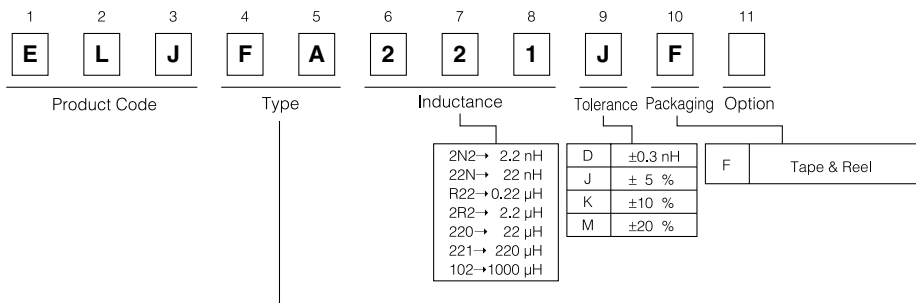
■ Features

- High Q
- Good for mounting
- Wide allowable range (1.0 nH to 1000 μ H)

■ Recommended Applications

- CTV, VTR, HIC, HDD, FDD, Cordless telephones, Portable telephones
Pagers, Video cameras

■ Explanation of Part Numbers



Types \ Styles	F	E	D	C	A	B
	1005 (0402)	1608 (0603)	2012 (0805)	2520 (1008)	3225 (1210)	4532 (1812)
Non Magnetic Core	RF	RE	ND	NC	NA	–
Regular	–	–	–	FC	FA	FB
Shield	–	–	–	–	SA	–
High Power	–	PE	–	PC	PA	–
Low DC resistance	–	–	–	–	EA	–

Size unit: mm

Inductance, Size Guide

	Type NAME	L VALUE						Features
		0.001	0.01	0.1	1.0	10	100	
Non Magnetic Core	1005 (0402) RF	D J						<ul style="list-style-type: none"> • Low inductance, tight tolerance • Stable L value against an environmental condition • Suitable for high frequency circuits
	1608 (0603) RE	D J						
	2012 (0805) ND	K J, K						
	2520 (1008) NC	K J, K						
	3225 (1210) NA	M K J						
Regular	2520 (1008) FC	K, M J, K						<ul style="list-style-type: none"> • Suitable for various applications
	3225 (1210) FA	K, M J, K						
	3225 (1210) SA Mag. shield	K						
	4532 (1812) FB	J, K						
High Power	1608 (0603) PE NEW	K						<ul style="list-style-type: none"> • Large DC current Suitable for power line as choke coil
	2520 (1008) PC	M K						
	3225 (1210) PA	M K						
Low DC resistance	3225 (1210) EA NEW	M K						<ul style="list-style-type: none"> • Low DC resistance

Size unit : mm

1. Non Magnetic Core Types RF, RE, ND, NC, NA

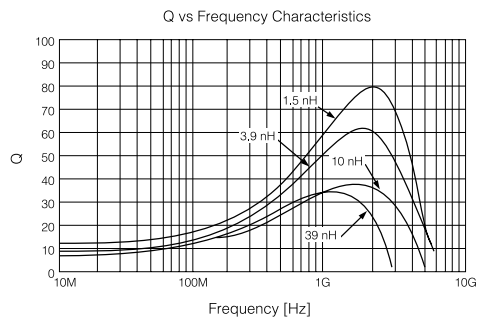
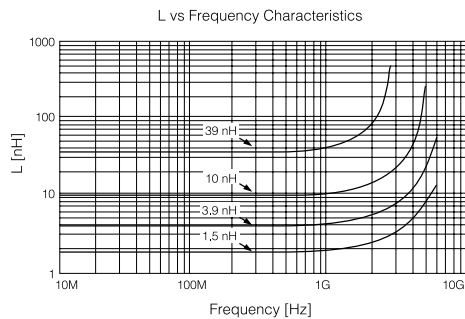
■ Examples : Type 1005(0402)RF

Part No.	Inductance		Q min.	L,Q Test-Freq. (MHz)	Q Typical (800 MHz)	SRF.*1 min.(MHz)	DCR.*2 max.(Ω)	DC current max.(mA)
	nH	Tolerance						
ELJRF1N0DF2	1.0	±0.3 nH	8	100	21	6000	0.05	400
ELJRF1N2DF2	1.2				21	6000	0.06	400
ELJRF1N5DF2	1.5				21	6000	0.07	400
ELJRF1N8DF2	1.8				21	6000	0.08	400
ELJRF2N2DF2	2.2				21	6000	0.09	400
ELJRF2N7DF2	2.7				21	5500	0.10	400
ELJRF3N3DF2	3.3				21	5500	0.12	400
ELJRF3N9DF2	3.9				20	5200	0.15	360
ELJRF4N7DF2	4.7				20	4800	0.17	360
ELJRF5N6DF2	5.6				20	4600	0.19	340
ELJRF6N8JF2	6.8	± 5 %			19	4000	0.30	320
ELJRF8N2JF2	8.2				19	3500	0.35	320
ELJRF10NJF2	10				19	2800	0.41	320
ELJRF12NJF2	12				19	2800	0.45	320
ELJRF15NJF2	15				19	2500	0.60	240
ELJRF18NJF2	18				19	2200	0.70	240
ELJRF22NJF2	22				19	2000	0.80	200
ELJRF27NJF2	27				19	1800	1.2	200
ELJRF33NJF2	33				18	1800	1.4	170
ELJRF39NJF2	39				18	1800	1.7	150
ELJRF47NJF2	47	17	1800	2.1	140			
ELJRF56NJF2	56	17	1500	2.5	130			
ELJRF68NJF2	68	15	1500	4.0	120			
ELJRF82NJF2	82	15	1400	4.5	110			
ELJRFR10JF2	100	14	1200	5.5	90			

*1 : Self Resonant Frequency *2 : DC Resistance

■ Performance Characteristics

Type: 1005 (0402) RF



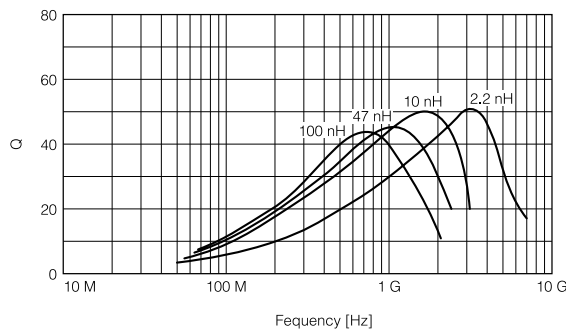
Examples : Type 1608(0603)RE

Part No.	Inductance		Q min.	L, Q Test-Freq. (MHz)	Q Typical (800 MHz)	SRF*1 min.(MHz)	DCR*2 max.(Ω)	DC Current max.(mA)
	nH	Tolerance						
ELJRE1N0DF2	1.0	±0.3 nH	7	100	47	6000	0.05	500
ELJRE1N2DF2	1.2				47	6000	0.06	500
ELJRE1N5DF2	1.5		47		6000	0.07	500	
ELJRE1N8DF2	1.8		45		6000	0.08	500	
ELJRE2N2DF2	2.2		35		6000	0.09	500	
ELJRE2N7DF2	2.7		35		6000	0.10	500	
ELJRE3N3DF2	3.3	± 5 %	8		35	5500	0.12	500
ELJRE3N9JF2	3.9				36	5500	0.15	450
ELJRE4N7JF2	4.7				36	4800	0.17	450
ELJRE5N6JF2	5.6				36	4600	0.18	430
ELJRE6N8JF2	6.8				36	3550	0.20	430
ELJRE8N2JF2	8.2				36	3500	0.28	400
ELJRE10N9JF2	10		9		37	2800	0.32	400
ELJRE12N9JF2	12				37	2800	0.35	400
ELJRE15N9JF2	15				38	2500	0.41	350
ELJRE18N9JF2	18				39	2300	0.45	350
ELJRE22N9JF2	22				40	2000	0.50	300
ELJRE27N9JF2	27				41	2000	0.55	300
ELJRE33N9JF2	33	10	40		1800	0.60	300	
ELJRE39N9JF2	39		39		1800	0.80	300	
ELJRE47N9JF2	47		38		1800	0.95	250	
ELJRE56N9JF3	56		35		1800	1.2	250	
ELJRE68N9JF3	68		35		1500	1.3	250	
ELJRE82N9JF3	82		33		1500	1.5	250	
ELJRER10JF3	100	11	30	1300	1.8	200		
ELJRER12JF3	120		5	25	1200	3.0	130	
ELJRER15JF3	150			22	1100	4.5	100	
ELJRER18JF3	180		4	20	1000	6.5	80	
ELJRER22JF3	220			—	900	7.5	70	

*1 : Self Resonant Frequency *2 : DC Resistance

Q-Frequency Characteristics

Type: 1608 (0603) RE



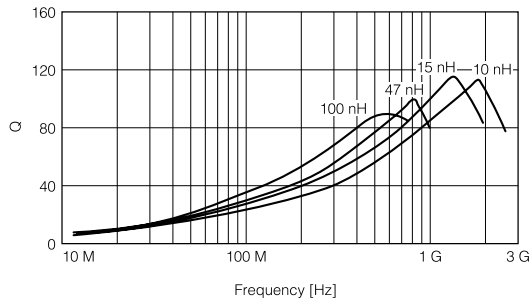
Examples : Type 2012(0805)ND

Part No.	Inductance		Q min.	L, Q Test-Freq. (MHz)	Q Typical (800 MHz)	SRF*1 min.(MHz)	DCR*2 max.(Ω)	DC Current max.(mA)	
	nH	Tolerance							
ELJND10NKF	10	± 10 %	10	100	72	3300	0.18	540	
ELJND12NKF	12				67	3300	0.24	535	
ELJND15NKF	15		12		73	3000	0.24	520	
ELJND18NKF	18				74	3000	0.29	480	
ELJND22NKF	22		15		75	2600	0.29	465	
ELJND27NKF	27				73	2500	0.34	455	
ELJND33NJ/KF	33	± 5 % ± 10 %	15	25.2	80	2050	0.39	395	
ELJND39NJ/KF	39				72	2000	0.41	390	
ELJND47NJ/KF	47				71	1650	0.46	385	
ELJND56NJ/KF	56				63	1550	0.51	360	
ELJND68NJ/KF	68				57	1450	0.57	340	
ELJND82NJ/KF	82				56	1100	0.63	330	
ELJNDR10J/KF	100		8		10	51	800	0.86	285
ELJNDR12J/KF	120					32	600	0.99	275
ELJNDR15J/KF	150		10			36	600	1.47	230
ELJNDR18J/KF	180					34	600	1.61	195
ELJNDR22J/KF	220					—	500	1.84	170
ELJNDR27J/KF	270					—	300	1.95	165
ELJNDR33J/KF	330	—		200	2.16	160			
ELJNDR39J/KF	390	—		150	2.37	150			
ELJNDR47J/KF	470	—	150	2.56	145				
ELJNDR56J/KF	560	—	100	2.69	140				
ELJNDR68J/KF	680	—	100	3.02	130				
ELJNDR82J/KF	820	—	80	3.38	125				
ELJND1R0J/KF	1000	8	7.96	—	80	3.88	120		

*1 : Self Resonant Frequency *2 : DC Resistance

Q-Frequency Characteristics

Type: 2012 (0805) ND



■ Examples : Type 2520(1008)NC

Part No.	Inductance		Q min.	L, Q Test Freq.(MHz)	SRF* ¹ min.(MHz)	DCR* ² max.(Ω)	DC Current max.(mA)	
	nH	Tolerance						
ELJNC10NKF	10	± 10 %	10	100	2500	0.32	280	
ELJNC12NKF	12				2200	0.34	270	
ELJNC15NKF	15				1800	0.38	255	
ELJNC18NKF	18				1550	0.40	250	
ELJNC22NKF	22				1350	0.43	240	
ELJNC27NKF	27		1150		0.47	230		
ELJNC33NK/JF	33		± 10 % ± 5 %		15	1000	0.51	220
ELJNC39NK/JF	39					890	0.55	215
ELJNC47NK/JF	47					770	0.59	205
ELJNC56NK/JF	56					670	0.63	200
ELJNC68NK/JF	68	590		0.68		190		
ELJNC82NK/JF	82	520		0.73	185			
ELJNCR10K/JF	100	10		25.2	460	0.80	175	
ELJNCR12K/JF	120				400	0.87	170	
ELJNCR15K/JF	150				340	0.98	160	
ELJNCR18K/JF	180				300	1.05	155	
ELJNCR22K/JF	220		260		1.15	145		
ELJNCR27K/JF	270		230		1.25	140		
ELJNCR33K/JF	330		200		1.37	135		
ELJNCR39K/JF	390		180		1.47	130		
ELJNCR47K/JF	470		160		1.58	125		
ELJNCR56K/JF	560		145		1.70	120		
ELJNCR68K/JF	680	130	1.85	110				
ELJNCR82K/JF	820	100	2.10	100				

*1 : Self Resonant Frequency *2 : DC Resistance

■ Examples : Type 3225(1210)NA

Part No.	Inductance			Q		SRF* ¹ min.(MHz)	DCR* ² max.(Ω)	DC Current max.(mA)		
	μH	Freq. (MHz)	Tolerance	min.	Freq. (MHz)					
ELJNA47NMF	0.047	100	± 20 %	10	100	680	0.20	450		
ELJNA56NMF	0.056					600	0.22	420		
ELJNA68NMF	0.068					540	0.25	400		
ELJNA82NMF	0.082					500	0.27	380		
ELJNAR10MF	0.10					450	0.30	360		
ELJNAR12MF	0.12				25.2	10	25.2	400	0.67	240
ELJNAR15MF	0.15							350	0.72	230
ELJNAR18MF	0.18							320	0.81	220
ELJNAR22KF	0.22							280	0.90	210
ELJNAR27KF	0.27							250	1.0	200
ELJNAR33KF	0.33	± 10 %	10	25.2	220	1.1	190			
ELJNAR39KF	0.39				200	1.2	180			
ELJNAR47KF	0.47				180	1.4	175			
ELJNAR56KF	0.56				160	1.5	170			
ELJNAR68KF	0.68				150	1.7	155			
ELJNAR82KF	0.82				135	1.9	145			
ELJNA1R0JF	1.0				1.0	13	7.96	120	2.1	125
ELJNA1R2JF	1.2							110	2.3	120
ELJNA1R5JF	1.5							95	2.7	115
ELJNA1R8JF	1.8							85	3.0	110
ELJNA2R2JF	2.2	80	3.2	110						
ELJNA2R7JF	2.7	70	3.6	105						
ELJNA3R3JF	3.3	62	4.2	100						
ELJNA3R9JF	3.9	57	4.4	95						
ELJNA4R7JF	4.7	52	7.7	70						
ELJNA5R6JF	5.6	46	8.7	65						
ELJNA6R8JF	6.8	42	10	60						
ELJNA8R2JF	8.2	38	11	60						

*1 : Self Resonant Frequency *2 : DC Resistance

Design and specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use.
Whenever a doubt about safety arises from this product, please contact us immediately for technical consultation.

2. Normal Types FC, FA, SA, FB

■ Examples : Type 2520(1008)FC

Part No.	Inductance		Q min.	L , Q Test Freq.(MHz)	SRF *1 min.(MHz)	DCR *2 max.(Ω)	DC Current max.(mA)			
	μH	Tolerance								
ELJFCR22M/KF	0.22	±20 % ±10 %	25	25.2	230	0.70	190			
ELJFCR27M/KF	0.27				210	0.75	180			
ELJFCR33M/KF	0.33				190	0.85	170			
ELJFCR39M/KF	0.39				175	0.95	160			
ELJFCR47M/KF	0.47				160	1.0	155			
ELJFCR56M/KF	0.56				150	1.1	150			
ELJFCR68M/KF	0.68				135	1.25	140			
ELJFCR82M/KF	0.82				125	1.4	130			
ELJFC1R0K/JF	1.0				±10 % ± 5 %	25	7.96	115	0.65	195
ELJFC1R2K/JF	1.2							100	0.75	180
ELJFC1R5K/JF	1.5	90	0.85	170						
ELJFC1R8K/JF	1.8	85	0.95	160						
ELJFC2R2K/JF	2.2	80	1.05	155						
ELJFC2R7K/JF	2.7	75	1.2	145						
ELJFC3R3K/JF	3.3	65	1.3	135						
ELJFC3R9K/JF	3.9	60	1.4	130						
ELJFC4R7K/JF	4.7	55	1.55	125						
ELJFC5R6K/JF	5.6	50	1.75	120						
ELJFC6R8K/JF	6.8	45	1.95	115						
ELJFC8R2K/JF	8.2	40	2.2	105						
ELJFC100K/JF	10	32	3.5	80						
ELJFC120K/JF	12	30	3.8	75						
ELJFC150K/JF	15	28	4.4	70						
ELJFC180K/JF	18	25	5.0	65						
ELJFC220K/JF	22	22	5.8	60						
ELJFC270K/JF	27	21	6.3	115						
ELJFC330K/JF	33	20	7.1	110						
ELJFC390K/JF	39	18	9.5	90						
ELJFC470K/JF	47	17	11.0	80						
ELJFC560K/JF	56	16	12.1	75						
ELJFC680K/JF	68	15	16.6	70						
ELJFC820K/JF	82	13	19.0	65						
ELJFC101K/JF	100	12	21.0	60						
			15	0.796						

*1 : Self Resonant Frequency *2 : DC Resistance

■ Examples : Type 3225(1210)FA

Part No.	Inductance		Q min.	L , Q Test Freq.(MHz)	SRF* ¹ min.(MHz)	DCR* ² max.(Ω)	DC Current max.(mA)	
	μH	Tolerance						
ELJFAR22M/KF2	0.22	±20 % ±10 %	25	25.2	230	0.29	360	
ELJFAR27M/KF2	0.27				210	0.32	345	
ELJFAR33M/KF2	0.33				190	0.35	330	
ELJFAR39M/KF2	0.39				175	0.39	305	
ELJFAR47M/KF2	0.47				160	0.44	290	
ELJFAR56M/KF2	0.56				150	0.49	275	
ELJFAR68M/KF2	0.68				135	0.55	260	
ELJFAR82M/KF2	0.82				125	0.61	245	
ELJFA1R0K/JF2	1.0	±10 % ± 5 %	30	7.96	115	0.69	230	
ELJFA1R2K/JF2	1.2				100	0.75	215	
ELJFA1R5K/JF	1.5				90	0.75	210	
ELJFA1R8K/JF	1.8				85	0.82	200	
ELJFA2R2K/JF	2.2				80	0.95	190	
ELJFA2R7K/JF	2.7				75	1.1	180	
ELJFA3R3K/JF	3.3				65	1.2	180	
ELJFA3R9K/JF	3.9				60	1.3	175	
ELJFA4R7K/JF	4.7				55	1.5	165	
ELJFA5R6K/JF	5.6				50	1.6	160	
ELJFA6R8K/JF	6.8				45	1.8	150	
ELJFA8R2K/JF	8.2				40	2.0	140	
ELJFA100K/JF	10				36	2.1	140	
ELJFA120K/JF	12				33	2.5	125	
ELJFA150K/JF	15				30	2.8	120	
ELJFA180K/JF	18				27	3.3	110	
ELJFA220K/JF	22		25	3.7	105			
ELJFA270K/JF	27		22	5.0	90			
ELJFA330K/JF	33		20	5.6	85			
ELJFA390K/JF	39		20	6.4	80			
ELJFA470K/JF	47		15	7.0	75			
ELJFA560K/JF	56		15	8.0	70			
ELJFA680K/JF	68		15	9.0	65			
ELJFA820K/JF	82		11	10	60			
ELJFA101K/JF	100		10	10	60			
ELJFA121K/JF	120		10	11	55			
ELJFA151K/JF	150		8	15	50			
ELJFA181K/JF	180		7	17	50			
ELJFA221K/JF	220		7	21	45			
				20	0.796			

*1 : Self Resonant Frequency *2 : DC Resistance

Examples : Type 3225(1210)SA

Part No.	Inductance			Q		SRF* ¹ min.(MHz)	DCR* ² max.(Ω)	DC Current max.(mA)
	μH	Freq. (MHz)	Tolerance	min.	Freq. (MHz)			
ELJSA100KF	10	1.0	± 10 %	40	5.0	30	1.8	18
ELJSA120KF	12					28	2.0	17
ELJSA150KF	15					25	2.2	15
ELJSA180KF	18					23	2.5	13
ELJSA220KF	22					20	2.8	12
ELJSA270KF	27					18	3.2	10
ELJSA330KF	33					17	3.5	10
ELJSA390KF	39					15	3.8	9
ELJSA470KF	47					14	4.0	8
ELJSA560KF	56					13	4.5	7
ELJSA680KF	68					12	5.0	6
ELJSA820KF	82					11	6.0	6
ELJSA101KF	100					10	7.0	5
ELJSA121KF	120					9	8.0	5
ELJSA151KF	150	0.1	± 10 %	30	1.5	5	9.0	5
ELJSA181KF	180					5	11	5
ELJSA221KF	220					4	12	5
ELJSA271KF	270					4	14	5

*1 : Self Resonant Frequency *2 : DC Resistance

Examples : Type 4532(1812)FB

Part No.	Inductance			Q		SRF* ¹ min.(MHz)	DCR* ² max.(Ω)	DC Current max.(mA)	
	μH	Freq. (MHz)	Tolerance	min.	Freq. (MHz)				
ELJFB101K/JF	100	0.1	± 10 % ± 5 %	40	2.52	6.7	8.8	105	
ELJFB121K/JF	120				1.5	6.1	10	100	
ELJFB151K/JF	150				5.5	11	95		
ELJFB181K/JF	180				5.1	13	85		
ELJFB221K/JF	220				4.5	13	85		
ELJFB271K/JF	270				4.1	14	80		
ELJFB331K/JF	330				3.7	16	75		
ELJFB391K/JF	390			3.3	19	70			
ELJFB471K/JF	470			30	± 10 % ± 5 %	0.796	3.3	31	55
ELJFB561K/JF	560						2.7	35	50
ELJFB681K/JF	680						2.5	39	50
ELJFB821K/JF	820						2.4	45	45
ELJFB102K/JF	1000						2.1	53	40

*1 : Self Resonant Frequency *2 : DC Resistance

3. High Power Types PE, PC, PA

■ Examples : Type 1608(0603)PE

Part No.	Inductance		Q min.	L , Q Test Freq.(MHz)	SRF * ¹ min.(MHz)	DCR * ² max.(Ω)	DC Current max.(mA)
	nH	Tolerance					
ELJPE2N2KF	2.2	± 10 %	8	100	6000	0.030	2.1
ELJPE2N7KF	2.7				5500	0.030	2.1
ELJPE3N3KF	3.3				5500	0.040	2.1
ELJPE3N9KF	3.9		9		5200	0.040	2.1
ELJPE4N7KF	4.7				4800	0.050	2.1
ELJPE5N6KF	5.6				4600	0.055	2.1
ELJPE6N8KF	6.8				4000	0.055	1.9
ELJPE8N2KF	8.2				3500	0.060	1.7
ELJPE10NKF	10				2800	0.065	1.4
ELJPE12NKF	12		2500		0.080	1.3	
ELJPE15NKF	15		2200		0.100	0.9	
ELJPE18NKF	18		2000		0.120	0.8	
ELJPE22NKF	22		1800		0.150	0.7	

*1 : Self Resonant Frequency *2 : DC Resistance

■ Examples : Type 2520(1008)PC

Part No.	Inductance		Q min.	L , Q Test Freq.(MHz)	SRF * ¹ min.(MHz)	DCR * ² max.(Ω)	DC Current max.(mA)	
	μH	Tolerance						
ELJPC1R0MF	1.0	±20 %	10	7.96	95	0.45	475	
ELJPC1R5MF	1.5				85	0.55	435	
ELJPC2R2MF	2.2				65	0.65	390	
ELJPC3R3MF	3.3		8		55	0.85	340	
ELJPC4R7MF	4.7				43	1.2	285	
ELJPC6R8KF	6.8				44	1.3	170	
ELJPC100KF	10	±10 %	8.5	2.52	32	2.2	210	
ELJPC120KF	12				20	25	2.7	195
ELJPC150KF	15					21	3.2	175
ELJPC220KF	22		18			4.0	160	
ELJPC330KF	33		20		16	6.5	120	

*1 : Self Resonant Frequency *2 : DC Resistance

Examples : Type 3225(1210)PA

Part No.	Inductance		Q min.	L , Q Test Freq.(MHz)	SRF*1 min.(MHz)	DCR*2 max.(Ω)	DC Current max.(mA)
	μH	Tolerance					
ELJPA1R0MF	1.0	±20 %	7	7.96	150	0.15	600
ELJPA1R5MF	1.5				110	0.18	550
ELJPA2R2MF	2.2				80	0.23	500
ELJPA3R3MF	3.3				58	0.28	400
ELJPA4R7MF	4.7				46	0.34	350
ELJPA6R8MF	6.8				38	0.42	300
ELJPA100KF	10	±10 %	15	2.52	23	0.50	240
ELJPA120KF	12				21	0.60	230
ELJPA150KF	15				18	0.74	220
ELJPA180KF	18				17	0.90	205
ELJPA220KF	22				15	1.15	185
ELJPA270KF	27				13	1.45	165
ELJPA330KF	33				12	1.65	155
ELJPA390KF	39				11	1.90	145
ELJPA470KF	47				9.5	2.25	135
ELJPA560KF	56		8.5	3.30	110		
ELJPA680KF	68		7.5	3.70	105		
ELJPA820KF	82		7.0	4.20	100		
ELJPA101KF	100		20	0.796	6.5	5.00	90
ELJPA121KF	120				6.0	7.00	75
ELJPA151KF	150				5.5	8.00	70
ELJPA181KF	180				5.0	9.50	65
ELJPA221KF	220				4.0	11.0	60
ELJPA271KF	270				3.5	14.5	55
ELJPA331KF	330	3.0			16.0	50	

*1 : Self Resonant Frequency *2 : DC Resistance

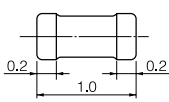
4. Low DC resistance Type EA

Examples : Type 3225(1210)EA

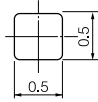
Part No.	Inductance		Q min.	L , Q Test Freq.(MHz)	SRF*1 min.(MHz)	DCR*2 max.(Ω)	DC Current max.(mA)
	μH	Tolerance					
ELJEA1R0MF	1.0	±20 %	7	7.96	100	0.09	500
ELJEA1R5MF	1.5				80	0.10	390
ELJEA2R2MF	2.2				65	0.13	350
ELJEA3R3MF	3.3				50	0.16	270
ELJEA4R7MF	4.7				46	0.18	240
ELJEA6R8MF	6.8				36	0.25	200
ELJEA100KF	10	±10 %	10	2.52	29	0.34	160
ELJEA150KF	15				25	0.42	145
ELJEA220KF	22				18	0.65	115
ELJEA330KF	33				16	0.91	95
ELJEA470KF	47				13	1.30	80
ELJEA680KF	68				10	1.95	60
ELJEA101KF	100		20	0.796	8.0	3.12	50
ELJEA151KF	150				7.0	4.03	45
ELJEA221KF	220				5.0	7.15	35
ELJEA331KF	330				4.0	9.23	30

*1 : Self Resonant Frequency *2 : DC Resistance

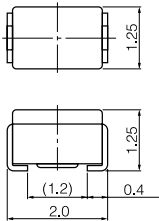
■ Dimensions in mm (not to scale)



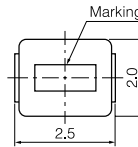
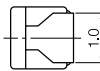
Type RF
(1.0×0.5×0.5)



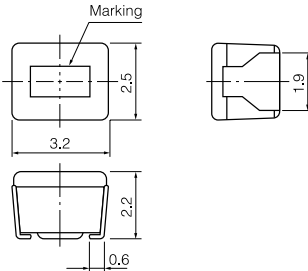
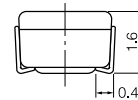
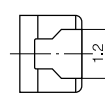
Type RE, PE
(1.6×0.8×0.8)



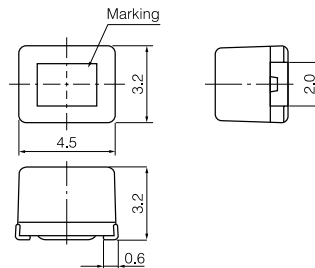
Type ND
(2.0×1.25×1.25)



Types FC, NC, PC
(2.5×2.0×1.6)

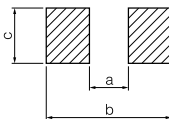


Types FA, SA, NA, PA, EA
(3.2×2.5×2.2)



Type FB
(4.5×3.2×3.2)

■ Recommended Land Pattern in mm (not to scale)

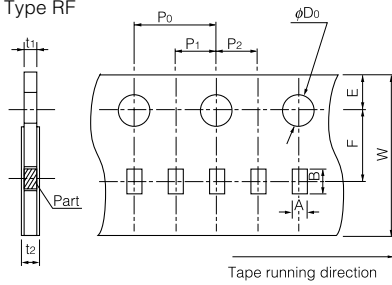


Type	a	b	c
RF	0.5~0.6	1.5~1.7	0.5~0.6
□E	0.8~1.0	2.0~2.6	0.7~0.9
ND	1.0~1.2	3.0~3.8	0.9~1.3
□C	1.4~1.5	3.5~4.0	1.2~1.6
□A	1.6~2.0	4.0~4.6	1.9~2.4
FB	2.4~2.6	5.5~6.0	2.0~3.0

□E: RE, PE □C: NC, FC, PC □A: NA, FA, SA, PA, EA

■ Paper Tape Dimensions in mm (not to scale)

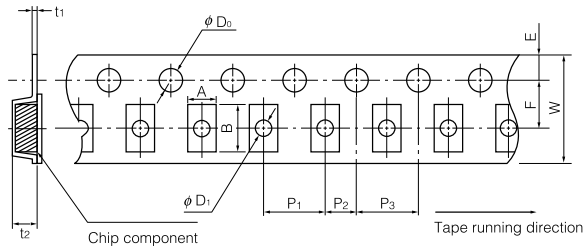
Type RF



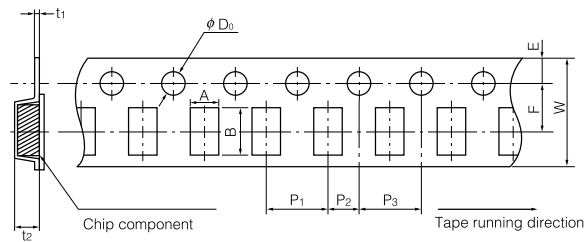
A	B	W	E	F	P_1
0.71	1.21	8.0	1.75	3.5	2.0
P_2	P_0	ϕD_0	t_1	t_2	
2.0	4.0	$\phi 1.5$	0.7 max.	1.0 max.	

■ Embossed Carrier Tape Dimensions in mm (not to scale)

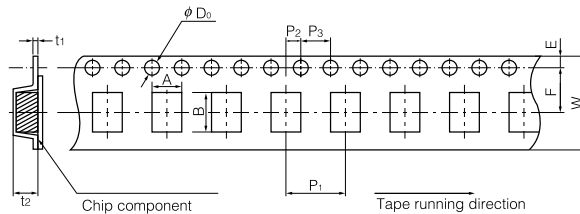
Types RE, PE, ND, NC, FC, PC (W=8 mm)



Types NA, FA, SA, PA, EA (W=8 mm)



Type FB (W=12 mm)



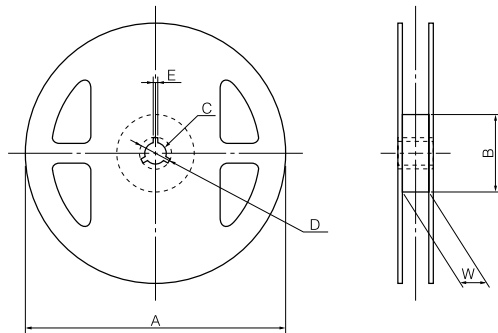
Size/Types		Dimensions											
		A	B	W	F	E	P ₁	P ₂	P ₃	φD ₀	φD ₁	t ₁	t ₂
1608(0603)	RE, PE	1.0	1.8	8	3.5	1.75	4.0	2.0	4.0	1.5	0.6	(0.27)	1.2
2012(0805)	ND	1.45	2.25	8	3.5	1.75	4.0	2.0	4.0	1.5	1.0	(0.25)	1.55
2520(1008)	NC, FC, PC	2.4	2.9	8	3.5	1.75	4.0	2.0	4.0	1.5	1.1	(0.25)	1.85
3225(1210)	NA, FA, SA, PA, EA	2.8	3.6	8	3.5	1.75	4.0	2.0	4.0	1.5	—	(0.25)	2.4
4532(1812)	FB	3.6	4.9	12	5.5	1.75	8.0	2.0	4.0	1.5	—	(0.3)	3.5

■ Packaging Methods

● Standard Packing Quantity and Mass

Types	Quantity, Mass	Quantity	Mass (Weight) Approx.
RF		10000 pcs.	—
RE, PE, ND		3000 pcs.	90 g
NC, FC, PC		2000 pcs.	100 g
NA, FA, SA, PA, EA		2000 pcs.	170 g
FB		500 pcs.	100 g

■ Reel Dimensions in mm (not to scale)



Types		Dimensions					
		A	B	C	D	E	W
RF		180	60	13	21	2	9
RE, PE, ND, NC, FC PC, NA, FA, SA, PA, EA		180	60	13	21	2	9
FB		180	60	13	21	2	13

Usage Precautions

For assured reliability and safety, consider following these caution items.

1. Land pattern design

Refer to the recommended land dimensions of each type for flow and reflow solderings.

Avoid placing the chip inductor on any metal pattern except the land because a drop of Q and mutual conductance may occur.

Provisions for venting of flux gases should be made for high density assemblies.

2. Mounting

Placement force should not exceed 20N because electric and magnetic characteristics change by applying strong force.

3. Soldering

① Flow soldering

Recommended conditions; 260 °C max., 5sec. max.(total time at 2 waves method)

② Reflow soldering

① Infra-red reflow soldering

Recommended conditions: 200 °C or high at electrode, 60sec. max. and peak 250 °C max., 5sec. max.

If the solder at the two electrodes is not melted simultaneously, the chip inductor may not be mounted in the right place.

It is recommended to fix by adhesive when the deviation is great.

② VPS reflow soldering

Recommended conditions: 215±5 °C, 20 to 60sec.

4. Cleaning

① Do not use acid or alkali agents. Some cleaning solvents made from CFC may damage the products. Confirm the reliability in advance.

② If ultrasonic cleaning is employed, please contact us immediately for technical consultation.

5. Instructions for applying current

The rated current is defined as the smaller value of either the current when the inductance drops 10 % down from the initial point, or the current when the average temperature inside the coil rises 20 °C up from initial point.

Do not operate these coils beyond the specified rated current.

6. Storage

① Do not store at high temperature, or in the presence of a large amount of moisture, gases and magnetic field.

② After long storage of more than 1 year, use the products after inspecting the outer structure