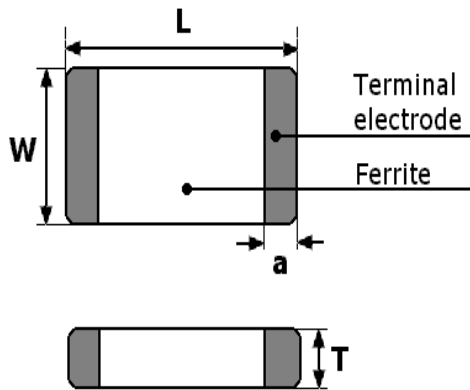


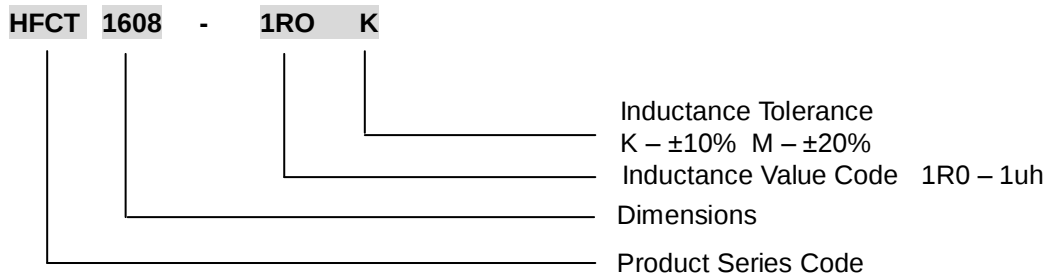
Multilayer Ferrite Chip Inductor - (HFDC)

■ Dimensions and Construction



TYPE	L mm	W mm	T mm	a mm
100505 (0402)	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.05	0.1~0.3
160808 (0603)	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.2~0.6
201209 (0805)	2.0 ± 0.2	1.25 ± 0.2	0.90 ± 0.2	0.2~0.8
321609 (1206)	3.2 ± 0.2	1.6 ± 0.2	0.9 ± 0.2	0.4~1.0

■ Part Numbering System



■ Electrical Characteristics

(1) Operating Temperature Ranges: $-25 \sim 85^{\circ}\text{C}$.

(2) Rated Current(ceramic material): DC current that causes the temperature rise ($\Delta T \leq 40^{\circ}\text{C}$) from 25°C ambient.

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HFDC1005 (0402)

Part Number	Inductance Tolerance	Min. Quality Factor	Test Frequency	Min.Self-resonant Frequency	Max.DC Resistance	Max.Rated Current	Thickness
Units	(μ H)	Q	(MHz)	(MHz)	(Ω)	(mA)	(mm)[inch]
HFDC1005-47NM	0.047 $\pm$ 20%	10	50	220	0.45	25	0.5 $\pm$ 0.15 [.020 $\pm$.006]
HFDC1005-68NM	0.068 $\pm$ 20%	10	50	210	0.45	25	
HFDC1005-82NM	0.082 $\pm$ 20%	10	50	200	0.45	25	
HFDC1005-R10K	0.1 $\pm$ 10%	10	25	200	0.8	25	
HFDC1005-R12K	0.12 $\pm$ 10%	10	25	165	0.8	25	
HFDC1005-R15K	0.15 $\pm$ 10%	10	25	140	0.9	25	
HFDC1005-R18K	0.18 $\pm$ 10%	10	25	120	0.9	25	
HFDC1005-R22K	0.22 $\pm$ 10%	10	25	110	1.2	25	
HFDC1005-R27K	0.27 $\pm$ 10%	15	25	95	1.2	25	
HFDC1005-R333K	0.33 $\pm$ 10%	15	25	85	1.25	18	
HFDC1005-R39K	0.39 $\pm$ 10%	20	10	85	0.6	15	
HFDC1005-R47K	0.47 $\pm$ 10%	20	10	80	0.7	15	
HFDC1005-R56K	0.56 $\pm$ 10%	20	10	75	0.8	15	
HFDC1005-R68K	0.68 $\pm$ 10%	20	10	70	0.9	15	
HFDC1005-R82K	0.82 $\pm$ 10%	20	10	65	0.9	15	
HFDC1005-1R0K	1.0 $\pm$ 10%	20	10	60	1.0	15	
HFDC1005-1R2K	1.2 $\pm$ 10%	20	10	55	1.25	15	
HFDC1005-1R5K	1.5 $\pm$ 10%	20	10	50	1.4	15	
HFDC1005-1R8K	1.8 $\pm$ 10%	20	10	45	1.55	15	
HFDC1005-2R2K	2.2 $\pm$ 10%	20	10	40	1.7	10	
HFDC1005-2R7K	2.7 $\pm$ 10%	20	10	28	2.4	10	
HFDC1005-3R3K	3.3 $\pm$ 10%	20	10	28	2.7	10	

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HFDC1608 (0603)

Part Number	Inductance Tolerance	Min. Quality Factor	Test Frequency	Min.Self-resonant Frequency	Max.DC Resistance	Max.Rated Current	Thickness
Units	(μ H)	Q	(MHz)	(MHz)	(Ω)	(mA)	(mm)[inch]
HFDC1608-47NM	0.047 $\pm$ 20%	10	50	260	0.30	50	0.8 $\pm$ 0.15 [.031 $\pm$.006]
HFDC1608-68NM	0.068 $\pm$ 20%	10	50	250	0.30	50	
HFDC1608-82NM	0.082 $\pm$ 20%	10	50	245	0.30	50	
HFDC1608-R10K	0.10 $\pm$ 10%	15	25	240	0.50	50	
HFDC1608-R12K	0.12 $\pm$ 10%,	15	25	205	0.50	50	
HFDC1608-R15K	0.15 $\pm$ 10%	15	25	180	0.60	50	
HFDC1608-R18K	0.18 $\pm$ 10%	15	25	165	0.60	50	
HFDC1608-R22K	0.22 $\pm$ 10%	15	25	150	0.80	50	
HFDC1608-R27K	0.27 $\pm$ 10%	15	25	136	0.80	50	
HFDC1608-R33K	0.33 $\pm$ 10%	15	25	125	0.85	35	
HFDC1608-R39K	0.39 $\pm$ 10%	15	25	110	1.00	35	
HFDC1608-R47K	0.47 $\pm$ 10%	15	25	105	1.35	35	
HFDC1608-R56K	0.56 $\pm$ 10%	15	25	95	1.55	35	
HFDC1608-R68K	0.68 $\pm$ 10%	15	25	90	1.70	35	
HFDC1608-R82K	0.82 $\pm$ 10%	15	25	85	2.10	35	
HFDC1608-1R0K	1.0 $\pm$ 10%	35	10	75	0.60	25	
HFDC1608-1R2K	1.2 $\pm$ 10%	35	10	65	0.80	25	
HFDC1608-1R5K	1.5 $\pm$ 10%	35	10	60	0.80	25	
HFDC1608-1R8K	1.8 $\pm$ 10%	35	10	55	0.95	25	
HFDC1608-2R2K	2.2 $\pm$ 10%	35	10	50	1.15	15	
HFDC1608-2R7K	2.7 $\pm$ 10%	35	10	45	1.35	15	
HFDC1608-3R3K	3.3 $\pm$ 10%	35	10	40	1.55	15	
HFDC1608-3R9K	3.9 $\pm$ 10%	35	10	35	1.70	15	
HFDC1608-4R7K	4.7 $\pm$ 10%	35	10	33	2.10	15	
HFDC1608-5R6K	5.6 $\pm$ 10%,	35	4	22	1.55	5	
HFDC1608-6R8K	6.8 $\pm$ 10%	35	4	20	1.70	5	
HFDC1608-8R2K	8.2 $\pm$ 10%	35	4	18	2.10	5	
HFDC1608-100K	10 $\pm$ 10%	30	2	17	1.85	3	
HFDC1608-120K	12 $\pm$ 10%	30	2	15	2.10	3	
HFDC1608-150K	15 $\pm$ 10%	20	1	14	1.70	1	
HFDC1608-180K	18 $\pm$ 10%	20	1	13	2.00	1	
HFDC1608-220K	22 $\pm$ 10%	20	1	11	2.10	1	
HFDC1608-270M	22 $\pm$ 20%	20	1	10	2.75	1	
HFDC1608-330M	33 $\pm$ 20%	20	1	9	2.95	1	

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HFDC2012 (0805)

Electrical Characteristics 电气特性

Part Number	Inductance Tolerance	Min. Quality Factor	Test Frequency	Min.Self-resonant Frequency	Max.DC Resistance	Max.Rated Current	Thickness
Units	(μ H)	Q	(MHz)	(MHz)	(Ω)	(mA)	(mm)[inch]
HFDC2012-47NM	0.047 $\pm$ 20%	15	50	320	0.20	300	0.85 $\pm$ 0.2 [.033 $\pm$.008]
HFDC2012-68NM	0.068 $\pm$ 20%	15	50	280	0.20	300	
HFDC2012-82NM	0.082 $\pm$ 20%	15	50	255	0.20	300	
HFDC2012-R10K	0.10 $\pm$ 10%	20	25	235	0.30	250	
HFDC2012-R12K	0.12 $\pm$ 10%	20	25	220	0.30	250	
HFDC2012-R15K	0.15 $\pm$ 10%	20	25	200	0.40	250	
HFDC2012-R18K	0.18 $\pm$ 10%	20	25	185	0.40	250	
HFDC2012-R22K	0.22 $\pm$ 10%	20	25	170	0.50	250	
HFDC2012-R27K	0.27 $\pm$ 10%	20	25	150	0.50	250	
HFDC2012-R33K	0.33 $\pm$ 10%	20	25	145	0.55	250	
HFDC2012-R39K	0.39 $\pm$ 10%	25	25	135	0.65	200	
HFDC2012-R47K	0.47 $\pm$ 10%	25	25	125	0.65	200	
HFDC2012-R56K	0.56 $\pm$ 10%	25	25	115	0.75	150	
HFDC2012-R68K	0.68 $\pm$ 10%	25	25	105	0.80	150	
HFDC2012-R82K	0.82 $\pm$ 10%,	25	25	100	1.00	150	
HFDC2012-1R0K	1.0 $\pm$ 10%	45	10	75	0.40	50	
HFDC2012-1R2K	1.2 $\pm$ 10%	45	10	65	0.50	50	
HFDC2012-1R5K	1.5 $\pm$ 10%	45	10	60	0.50	50	
HFDC2012-1R8K	1.8 $\pm$ 10%	45	10	55	0.60	50	
HFDC2012-2R2K	2.2 $\pm$ 10%	45	10	50	0.65	30	
HFDC2012-2R7K	2.7 $\pm$ 10%	45	10	45	0.75	30	
HFDC2012-3R3K	3.3 $\pm$ 10%	45	10	41	0.80	30	
HFDC2012-3R9K	3.9 $\pm$ 10%	45	10	38	0.90	30	
HFDC2012-4R7K	4.7 $\pm$ 10%	45	10	35	1.00	30	
HFDC2012-5R6K	5.6 $\pm$ 10%	50	4	32	0.90	15	
HFDC2012-6R8K	6.8 $\pm$ 10%	50	4	29	1.00	15	
HFDC2012-8R2K	8.2 $\pm$ 10%	50	4	26	1.10	15	
HFDC2012-100K	10 $\pm$ 10%	50	2	24	1.15	15	
HFDC2012-120K	12 $\pm$ 10%	50	2	22	1.25	15	
HFDC2012-150K	15 $\pm$ 10%	30	1	19	0.80	5	
HFDC2012-180K	18 $\pm$ 10%	30	1	18	0.90	5	
HFDC2012-220K	22 $\pm$ 10%	30	1	16	1.10	5	
HFDC2012-270K	27 $\pm$ 10%	30	1	14	1.15	5	1.25 $\pm$ 0.2 [.049 $\pm$.008]
HFDC2012-330K	33 $\pm$ 10%,	30	1	13	1.25	5	
HFDC2012-390K	39 $\pm$ 10%,	35	1	8	2.90	4	
HFDC2012-470K	47 $\pm$ 10%,	35	1	7.5	3.00	4	
HFDC2012-101M	100 $\pm$ $\pm$ 20%	25	1	7	3.10	2	

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HFDC3216 (1206)

Part Number	Inductance Tolerance	Min. Quality Factor	Test Frequency	Min.Self-resonant Frequency	Max.DC Resistance	Max.Rated Current	Thickness
Units	(μ H)	Q	(MHz)	(MHz)	(Ω)	(mA)	(mm)[inch]
HFDC3216-47NM	0.047 $\pm$ 20%	20	50	320	0.15	300	0.85 $\pm$ 0.2 [.033 $\pm$.008]
HFDC3216-68NM	0.068 $\pm$ 20%	20	50	280	0.25	300	
HFDC3216-82NM	0.082 $\pm$ 20%	20	50	255	0.25	300	
HFDC3216-R10K	0.10 $\pm$ 10%,	20	25	235	0.25	250	
HFDC3216-R12K	0.12 $\pm$ 10%	20	25	220	0.30	250	
HFDC3216-R15K	0.15 $\pm$ 10%	20	25	200	0.30	250	
HFDC3216-R18K	0.18 $\pm$ 10%,	20	25	185	0.40	250	
HFDC3216-R22K	0.22 $\pm$ 10%	20	25	170	0.40	250	
HFDC3216-R27K	0.27 $\pm$ 10%	20	25	150	0.50	250	
HFDC3216-R33K	0.33 $\pm$ 10%	20	25	145	0.60	250	
HFDC3216-R39K	0.39 $\pm$ 10%	25	25	135	0.50	250	
HFDC3216-R47K	0.47 $\pm$ 10%	25	25	125	0.60	200	
HFDC3216-R56K	0.56 $\pm$ 10%	25	25	115	0.70	200	
HFDC3216-R68K	0.68 $\pm$ 10%	25	25	105	0.80	150	
HFDC3216-R82K	0.82 $\pm$ 10%	25	25	100	0.90	150	
HFDC3216-1R0K	1.0 $\pm$ 10%	45	10	75	0.40	100	
HFDC3216-1R2K	1.2 $\pm$ 10%	45	10	65	0.50	100	
HFDC3216-1R5K	1.5 $\pm$ 10%	45	10	60	0.50	50	
HFDC3216-1R8K	1.8 $\pm$ 10%	45	10	55	0.50	50	
HFDC3216-2R2K	2.2 $\pm$ 10%	45	10	50	0.60	50	
HFDC3216-2R7K	2.7 $\pm$ 10%	45	10	45	0.60	50	
HFDC3216-3R3K	3.3 $\pm$ 10%	45	10	41	0.70	50	
HFDC3216-3R9K	3.9 $\pm$ 10%	45	10	38	0.80	50	
HFDC3216-4R7K	4.7 $\pm$ 10%	45	10	35	0.90	50	
HFDC3216-5R6K	5.6 $\pm$ 10%	50	4	32	0.70	25	
HFDC3216-6R8K	6.8 $\pm$ 10%	50	4	29	0.80	25	
HFDC3216-8R2K	8.2 $\pm$ 10%	50	4	26	0.90	25	
HFDC3216-100K	10 $\pm$ 10%	50	2	24	1.00	25	
HFDC3216-120K	12 $\pm$ 10%	50	2	22	1.05	15	
HFDC3216-150K	15 $\pm$ 10%	35	1	19	0.70	5	
HFDC3216-180K	18 $\pm$ 10%	35	1	18	0.70	5	
HFDC3216-220K	22 $\pm$ 10%	35	1	16	0.90	5	
HFDC3216-270K	27 $\pm$ 10%	35	1	14	0.90	5	
HFDC3216-330K	33 $\pm$ 10%	35	1	13	1.05	5	1.10 $\pm$ 0.2 [.043 $\pm$.008]
HFDC3216-390K	39 $\pm$ 10%	40	2	11	3.00	5	
HFDC3216-470K	47 $\pm$ 10%	40	2	10	3.40	5	

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■ Packaging Quantity

Type	Pcs/Reel
1005/0402	10000PCS
1608/0603	4000PCS
2012/0805	4000PCS/2000PCS
3216/1206	4000PCS/2000PCS