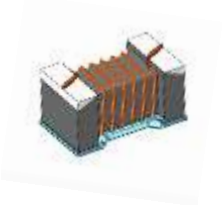
Wire Wound Chip Ferrite Inductor – MWSD-F Series

Operating Temp. : -40℃~+85℃



FEATUREF

- Small chip suitable for surface mounting
- Large inductance with ferrite material
- Single-sided package, thinner than WL-FS

APPLICATIONF

- Mobile phones and other electronic devices

PRODUCT IDENTIFICATION

MWSD	1005	F	18N	J	T	□□□
①	②	③	④	⑤	⑥	⑦

①

Type	
MWSD	Wire Wound Chip Inductor

②

External Dimensions
0603[0201]
0703[026011]
1005[0402]
1608[0603]

③

Material Code	
F	Ferrite

④

Nominal Inductance	
Example	Nominal Value
1N0	1.0nH
10N	10nH
R10	100nH
1R0	1.0μH
100	10μH

⑤

Inductance Tolerance	
J	±5%
K	±10%
M	±20%

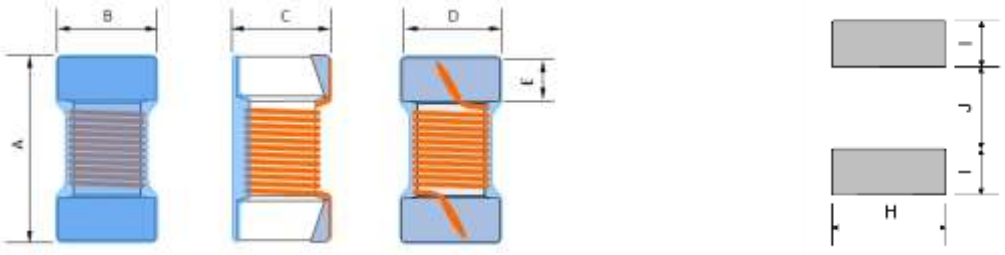
⑥

Packing	
B	Bulk Package
T	Tape & Reel

⑦

Design Code	
□□□	Design Code
*Standard product is blank	

SHAPE AND DIMENSIONS



Unit: mm

Series	A	B	C	D Typ.	E	H Ref.	I Ref.	J Ref.
MWSD0603F	0.53±0.05	0.40±0.05	0.40±0.05	0.39±0.05	0.10±0.05	0.50	0.20	0.23
MWSD0703F	0.76Max.	0.43Max.	0.57Max.	0.28±0.05	0.13±0.05	0.36	0.25	0.41
MWSD1005F	1.10±0.1	0.60±0.1	0.55±0.1	0.50±0.10	0.20±0.10	0.65	0.35	0.50
MWSD1005F-M01	1.10±0.1	0.60±0.1	0.55±0.1	0.50±0.10	0.20±0.10	0.65	0.35	0.50
MWSD1608F	1.6±0.20	0.8±0.20	0.8±0.20	0.80	0.30	1.02	0.64	0.64
MWSD1608F-M01	1.6±0.20	0.8±0.20	0.8±0.20	0.80	0.30	1.02	0.64	0.64
MWSD1608F-B01	1.6±0.20	0.8±0.20	0.7±0.10	0.90	0.30	1.15	0.45	1.10
MWSD1608F-B02	1.6±0.20	0.8±0.20	0.80±0.20	0.80	0.30	1.02	0.64	0.64

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SPECIFICATIONS

MWSD0603F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	GHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD0603F33N□T	33	K	7.9	3.40	0.15	340
MWSD0603F51N□T	51	K	7.9	2.90	0.30	280
MWSD0603F68N□T	68	K	7.9	2.60	0.33	220
MWSD0603F91N□T	91	K	7.9	2.35	0.37	200
MWSD0603FR11□T	110	K	7.9	2.10	0.48	170
MWSD0603FR14□T	140	K	7.9	2.00	0.65	160
MWSD0603FR17□T	170	K	7.9	1.85	0.86	140
MWSD0603FR20□T	200	K	7.9	1.70	1.25	110

MWSD0703F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	GHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD0703F27N□T	27	J	7.9	3.9	0.11	480
MWSD0703F72N□T	72	J	7.9	2.6	0.40	210
MWSD0703FR10□T	100	J	7.9	2.3	0.50	200
MWSD0703FR15□T	150	J	7.9	1.8	0.60	190
MWSD0703FR27□T	270	J	7.9	1.6	1.15	130
MWSD0703FR43□T	430	J	7.9	0.9	1.85	100
MWSD0703FR56□T	560	J	7.9	1.0	2.80	90

MWSD1005F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1005F20N□T	20	J,K,M	7.9	2600	0.050	1600
MWSD1005F22N□T	22	J,K,M	7.9	2500	0.065	1300
MWSD1005F33N□T	33	J,K,M	7.9	2300	0.060	1400
MWSD1005F36N□T	36	J,K,M	7.9	2300	0.075	1300
MWSD1005F39N□T	39	J,K,M	7.9	2200	0.115	830
MWSD1005F51N□T	51	J,K,M	7.9	1930	0.070	1100
MWSD1005F56N□T	56	J,K,M	7.9	1900	0.095	1000
MWSD1005F72N□T	72	J,K,M	7.9	1650	0.100	1000
MWSD1005F78N□T	78	J,K,M	7.9	1600	0.130	970
MWSD1005F85N□T	85	J,K,M	7.9	1600	0.130	970
MWSD1005F96N□T	96	J	100	1100	0.160	730
MWSD1005FR10□T	100	J,K,M	7.9	1400	0.160	900
MWSD1005FR14□T	140	J,K,M	7.9	1220	0.260	630
MWSD1005FR18□T	180	J,K,M	7.9	1150	0.280	560
MWSD1005FR20□T	200	J,K,M	7.9	1000	0.440	400
MWSD1005FR22□T	220	J,K,M	7.9	1150	0.530	380
MWSD1005FR25□T	250	J,K,M	7.9	900	0.450	520
MWSD1005FR27□T	270	J,K,M	7.9	860	0.550	360
MWSD1005FR30□T	300	J,K,M	7.9	860	0.410	420
MWSD1005FR33□T	330	J,K,M	7.9	820	0.560	350

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SPECIFICATIONS

MWSD1005F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1005FR36□T	360	J,K,M	7.9	810	0.575	360
MWSD1005FR39□T	390	J,K,M	7.9	760	0.750	300
MWSD1005FR42□T	420	J,K,M	7.9	700	0.700	340
MWSD1005FR47□T	470	J,K,M	7.9	650	0.730	310
MWSD1005FR56□T	560	J,K,M	7.9	600	0.920	200
MWSD1005F2R2□T	2200	K,M	1.0	100	1.800	170

MWSD1005F-M01 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1005F18N□TM01	18	J,K,M	100	3000	0.046	1400
MWSD1005F20N□TM01	20	J,K,M	100	3000	0.028	2200
MWSD1005F33N□TM01	33	J,K,M	100	1800	0.065	1300
MWSD1005F34N□TM01	34	J,K,M	100	2500	0.036	1800
MWSD1005F48N□TM01	48	J,K,M	100	1400	0.078	1100
MWSD1005F53N□TM01	53	J,K,M	100	2000	0.060	1300
MWSD1005F68N□TM01	68	J,K,M	100	1300	0.120	820
MWSD1005F70N□TM01	70	J,K,M	100	1300	0.120	820
MWSD1005F77N□TM01	77	J,K,M	100	2000	0.090	1100
MWSD1005F96N□TM01	96	J,K,M	100	1100	0.160	730
MWSD1005FR11□TM01	106	J,K,M	100	1500	0.144	850
MWSD1005FR13□TM01	130	J,K,M	100	1000	0.230	640
MWSD1005FR14□TM01	140	J,K,M	100	1000	0.216	650
MWSD1005FR16□TM01	160	J,K,M	100	900	0.330	480
MWSD1005FR18□TM01	180	J,K,M	100	1000	0.312	560
MWSD1005FR20□TM01	200	J,K,M	100	800	0.470	390
MWSD1005FR22□TM01	220	J,K,M	100	1100	0.470	450
MWSD1005FR27□TM01	270	J,K,M	100	730	0.520	420
MWSD1005FR33□TM01	330	J,K,M	100	520	0.560	390
MWSD1005FR39□TM01	390	J,K,M	100	350	0.620	370
MWSD1005FR42□TM01	420	J,K,M	10	320	0.620	370
MWSD1005FR47□TM01	470	J,K,M	10	380	0.660	350
MWSD1005FR56□TM01	560	K,M	10	300	0.710	300
MWSD1005F2R2□TM01	2200	K,M	1	100	1.800	170

MWSD1608F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1608F51N□T	51	J,K,M	7.9	2300	0.07	1050
MWSD1608F56N□T	56	J,K,M	7.9	2200	0.04	1850
MWSD1608FR10□T	100	K,M	7.9	1370	0.11	850
MWSD1608FR12□T	120	J,K,M	7.9	1340	0.18	670
MWSD1608FR18□T	180	J,K,M	7.9	1060	0.19	670
MWSD1608FR20□T	200	J,K,M	7.9	1030	0.14	740
MWSD1608FR22□T	220	J,K,M	7.9	850	0.20	650

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MWSD1608F TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1608FR27□T	270	J,K,M	7.9	780	0.24	630
MWSD1608FR33□T	330	J,K,M	7.9	730	0.29	510
MWSD1608FR39□T	390	J,K,M	7.9	750	0.33	490
MWSD1608FR47□T	470	J,K,M	7.9	670	0.37	470
MWSD1608FR50□T	500	J,K,M	7.9	610	0.45	410
MWSD1608FR56□T	560	J,K,M	7.9	590	0.51	380
MWSD1608FR62□T	620	J,K,M	7.9	570	0.48	390
MWSD1608FR65□T	650	J,K,M	7.9	550	0.61	350
MWSD1608FR68□T	680	J,K,M	7.9	520	0.77	310
MWSD1608FR78□T	780	J,K,M	7.9	480	0.83	300
MWSD1608F1R0□T	1000	J,K,M	7.9	410	0.94	280
MWSD1608F1R2□T	1200	J,K,M	7.9	370	1.10	260
MWSD1608F6R8□T	6800	J,K,M	7.9	40	4.00	130
MWSD1608F7R8□T	7800	J,K,M	7.9	40	4.40	120
MWSD1608F8R2□T	8200	J,K,M	7.9	40	4.50	110
MWSD1608F100□T	10000	J,K,M	2.5	30	5.00	100
MWSD1608F150□T	15000	J,K,M	2.5	20	9.50	90
MWSD1608F180□T	18000	J,K,M	2.5	20	10.40	80
MWSD1608F220□T	22000	J,K,M	2.5	20	11.40	70

MWSD1608F-M01 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1608F4N9□TM01	4.9	M	10	2300	0.015	2600
MWSD1608F15N□TM01	15	J,K,M	10	2000	0.025	2200
MWSD1608F33N□TM01	33	J,K,M	10	1800	0.035	1700
MWSD1608F55N□TM01	55	J,K,M	10	1600	0.045	1500
MWSD1608F85N□TM01	85	J,K,M	10	1380	0.060	1400
MWSD1608FR10□TM01	100	K,M	10	1260	0.100	1000
MWSD1608FR12□TM01	120	J,K,M	10	1200	0.085	1100
MWSD1608FR16□TM01	160	J,K,M	10	900	0.100	1000
MWSD1608FR21□TM01	210	J,K,M	10	720	0.150	800
MWSD1608FR27□TM01	270	J,K,M	10	660	0.160	750
MWSD1608FR33□TM01	330	J,K,M	10	600	0.250	630
MWSD1608FR39□TM01	390	J,K,M	10	570	0.280	620
MWSD1608FR47□TM01	470	J,K,M	10	555	0.450	500
MWSD1608FR56□TM01	560	J,K,M	10	540	0.480	450
MWSD1608FR65□TM01	650	J,K,M	10	510	0.520	430

MWSD1608F-B01 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1608F1R8□TB01	1800	J,K,M	7.9	190	1.40	230
MWSD1608F4R7□TB01	4700	J,K,M	7.9	50	2.70	160
MWSD1608F100□TB01	10000	J,K,M	2.5	30	5.00	100
MWSD1608F150□TB01	15000	J,K,M	10	20	4.00	100

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SPECIFICATIONS

MWSD1608F-B01 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1608F220□TB01	22000	J,K,M	2.5	20	11.40	70
MWSD1608F470□TB01	47000	J,K,M	2.5	11	24.00	50

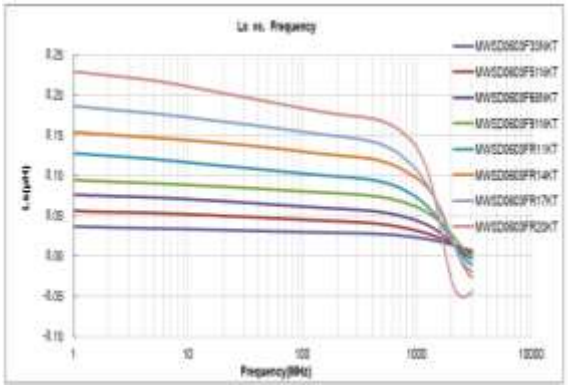
MWSD1608F-B02 TYPE

Part Number	Inductance	Tolerance	L Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	MHz	MHz	Ω	mA
Symbol	L	-	Freq.	S.R.F	DCR	Ir
MWSD1608F3R3□TB02	3300	J,K,M	7.9	60	1.80	200

TYPICAL ELECTRICAL CHARACTERISTICS

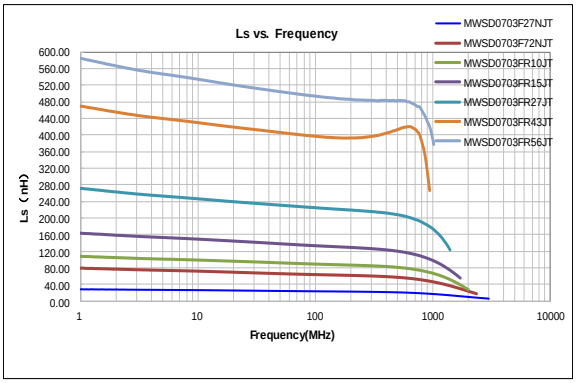
MWSD0603F TYPE

Inductance vs. Frequency Characteristics



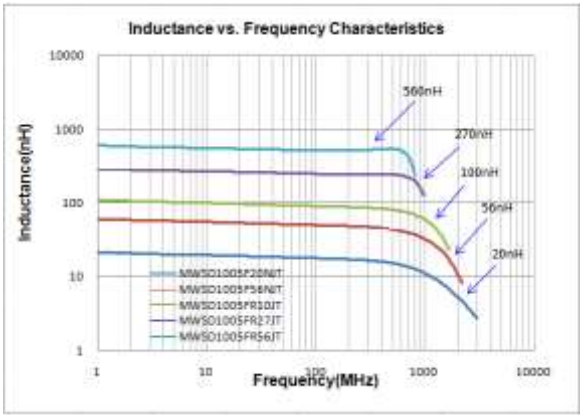
MWSD0703F TYPE

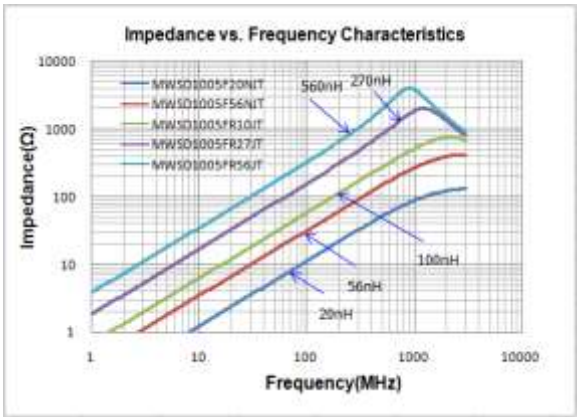
Inductance vs. Frequency Characteristics



MWSD1005F TYPE

Inductance vs. Frequency Characteristics





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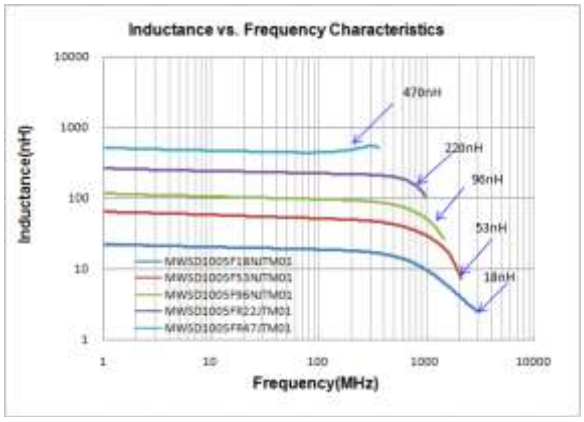
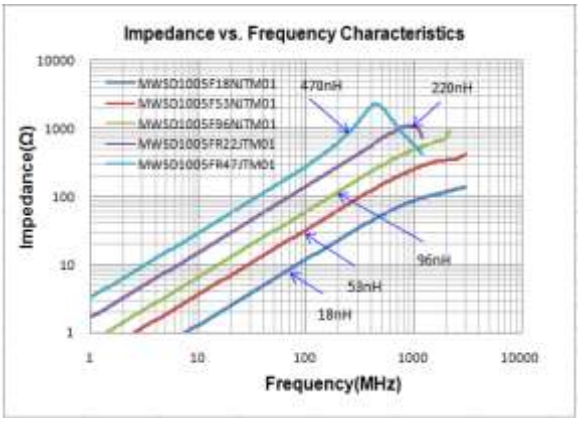
TYPICAL ELECTRICAL CHARACTERISTICS

MWSD1005F-M01 TYPE

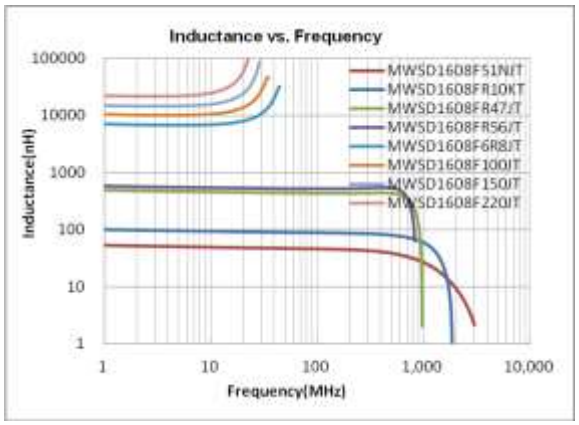
Inductance vs. Frequency Characteristics





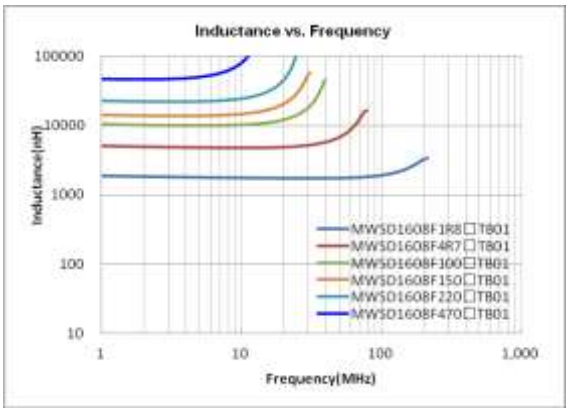
MWSD1608F TYPE

Inductance vs. Frequency Characteristics



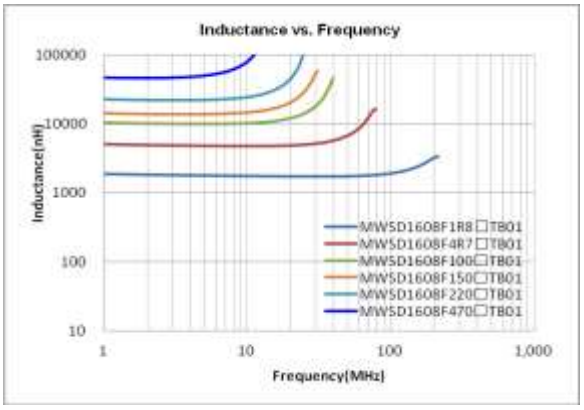
MWSD1608F-M01 TYPE

Inductance vs. Frequency Characteristics



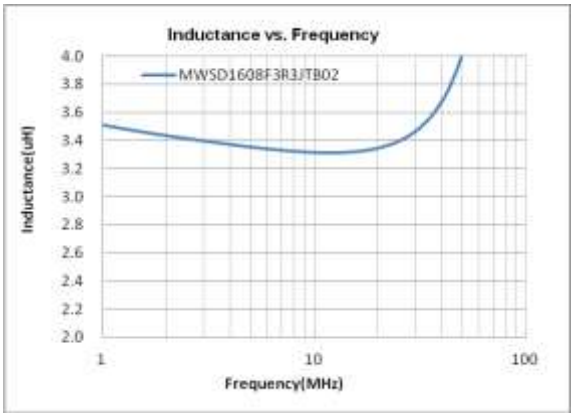
MWSD1608F-B01 TYPE

Inductance vs. Frequency Characteristics



MWSD1608F-B02 TYPE

Inductance vs. Frequency Characteristics



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