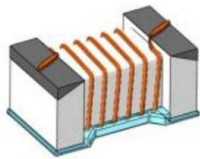


MWSD1005C9N1GTM01 Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	MWSD1005C9N1GTM01-DG
Manufacturer	Shenzhen Sunlord Electronics Co., Ltd.
Manufacturer Product Number	MWSD1005C9N1GTM01
Description	FIXED IND 9.1NH 540MA 140MOHM SM
Detailed Description	9.1 nH Unshielded Drum Core, Wirewound Inductor 540 mA 140mOhm Max 0402 (1005 Metric)

This model MWSD1005C9N1GTM01 is available at DiGi Electronics.

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Purchase and inquiry

Manufacturer Product Number:

MWSD1005C9N1GTM01

Series:

MWSD-C-M

Type:

Drum Core, Wirewound

Inductance:

9.1 nH

Current Rating (Amps):

540 mA

Shielding:

Unshielded

Q @ Freq:

25 @ 250MHz

Ratings:

-

Inductance Frequency - Test:

100 MHz

Mounting Type:

Surface Mount

Supplier Device Package:

0402

Height - Seated (Max):

0.026" (0.65mm)

Manufacturer:

Shenzhen Sunlord Electronics Co., Ltd.

Product Status:

Active

Material - Core:

Ceramic

Tolerance:

±2%

Current - Saturation (Isat):

-

DC Resistance (DCR):

140mOhm Max

Frequency - Self Resonant:

5.5GHz

Operating Temperature:

-40°C ~ 125°C

Features:

-

Package / Case:

0402 (1005 Metric)

Size / Dimension:

0.043" L x 0.024" W (1.10mm x 0.60mm)

Base Product Number:

MWSD1005C9

Environmental & Export classification

Moisture Sensitivity Level (MSL):

1 (Unlimited)

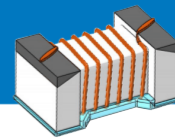
HTSUS:

8504.50.8000

ECCN:

EAR99

Wire Wound Chip Ceramic Inductor – MWSD – C – M Series



Operating temp. : -40°C ~+125°C

FEATURES

- ◆ Small chip suitable for surface mounting
- ◆ High Q value and high self-resonant frequency with ceramic material
- ◆ Tight inductance tolerance and high reliability
- ◆ Single-sided package, thinner than SDWL-C-M series

APPLICATIONS

- ◆ High frequency line of communication equipment and wireless module
- ◆ Mobile phones, smart watches and other portable electronic devices
- ◆ Bluetooth, W-LAN, Broadband network

PRODUCT IDENTIFICATION

1 MWSD	2 1005	3 C	4 10N	5 <input type="checkbox"/>	6 T	7 M01
------------------	------------------	---------------	-----------------	-------------------------------	---------------	-----------------

1 Type	
MWSD	Wire Wound Chip Inductor

2 External Dimensions	
1005 [0402]	1.1×0.6
1608 [0603]	1.6×0.8

3 Material Code	
C	Ceramic

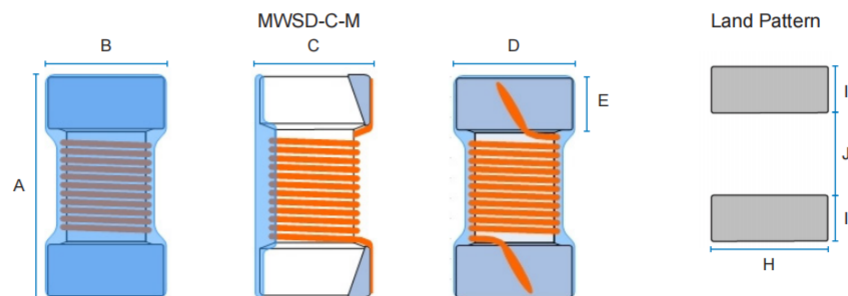
4 Nominal Inductance	
Example	Nominal Value
4N7	4.7nH
10N	10nH
R10	100nH

5 Inductance Tolerance	
B	±0.1nH
C	±0.2nH
D	±0.5nH
G	±2%
H	±3%
J	±5%

6 Packing	
B	Package
T	Tape & Reel

7 Internal Code	
M01/M11	Internal Code

SHAPE AND DIMENSIONS



Series	A	B	C	D	E	H REF.	I REF.	J REF.
MWSD1005C-M	1.1±0.1	0.6±0.1	0.55±0.1	0.5±0.1	0.2±0.1	0.65	0.35	0.50
MWSD1608C-M	1.60±0.20	0.80±0.20	0.80±0.20	0.80	0.30	1.02	0.64	0.64

Unit: mm

Multilayer Chip Ferrite Inductor
 Multilayer Chip Inductor for Choke
 Multilayer Chip Power Inductor
 Multilayer Ultra High Q Chip Ceramic Inductor
 Multilayer High Q Chip Ceramic Inductor
 Multilayer Chip Ceramic Inductor
 Multilayer High Frequency Chip Ceramic Inductor
 Wire Wound Chip Ceramic Inductor
 Wire Wound Chip Ferrite Inductor
 SMD Power Inductor

SPECIFICATIONS MWSD1005C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I _r
MWSD1005C1N5 □ TM01	1.5	B,C,D	10	100/250	>6000	0.03	1000
MWSD1005C1N6 □ TM01	1.6	C,D	10	100/250	>6000	0.07	750
MWSD1005C1N7 □ TM01	1.7	C,D	10	100/250	>6000	0.10	640
MWSD1005C1N8 □ TM01	1.8	C,D	10	100/250	>6000	0.16	460
MWSD1005C2N4 □ TM01	2.4	B,C,D	20	100/250	>6000	0.05	850
MWSD1005C2N5 □ TM01	2.5	B,C,D	20	100/250	>6000	0.05	850
MWSD1005C2N6 □ TM01	2.6	B,C,D	20	100/250	>6000	0.05	850
MWSD1005C2N7 □ TM01	2.7	B,C,D	20	100/250	>6000	0.05	850
MWSD1005C2N8 □ TM01	2.8	B,C,D	20	100/250	>6000	0.05	850
MWSD1005C2N9 □ TM01	2.9	B,C,D	20	100/250	>6000	0.07	750
MWSD1005C3N0 □ TM01	3.0	B,C,D	20	100/250	>6000	0.07	750
MWSD1005C3N1 □ TM01	3.1	B,C,D	20	100/250	>6000	0.13	570
MWSD1005C3N2 □ TM01	3.2	B,C,D	15	100/250	>6000	0.17	500
MWSD1005C3N9 □ TM01	3.9	C,D	25	100/250	>6000	0.07	750
MWSD1005C4N1 □ TM01	4.1	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N3 □ TM01	4.3	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N4 □ TM01	4.4	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N5 □ TM01	4.5	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N6 □ TM01	4.6	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N7 □ TM01	4.7	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N8 □ TM01	4.8	B,C,D	25	100/250	>6000	0.07	750
MWSD1005C4N9 □ TM01	4.9	B,C,D	25	100/250	>6000	0.12	600
MWSD1005C5N0 □ TM01	5.0	B,C,D	25	100/250	>6000	0.12	600
MWSD1005C5N1 □ TM01	5.1	B,C,D	25	100/250	>6000	0.12	600
MWSD1005C5N8 □ TM01	5.8	B,C,D	25	100/250	>6000	0.12	700
MWSD1005C6N2 □ TM01	6.2	B,C,D	25	100/250	>6000	0.09	700
MWSD1005C6N3 □ TM01	6.3	B,C,D	25	100/250	6000	0.09	700
MWSD1005C6N4 □ TM01	6.4	B,C,D	25	100/250	6000	0.09	700
MWSD1005C6N5 □ TM01	6.5	B,C,D	25	100/250	6000	0.09	700
MWSD1005C6N6 □ TM01	6.6	B,C,D	25	100/250	6000	0.09	700
MWSD1005C6N7 □ TM01	6.7	B,C,D	25	100/250	6000	0.09	700
MWSD1005C6N8 □ TM01	6.8	G,H,J	25	100/250	6000	0.09	700
MWSD1005C6N9 □ TM01	6.9	G,H,J	25	100/250	6000	0.13	570
MWSD1005C7N0 □ TM01	7.0	G,H,J	25	100/250	6000	0.13	570
MWSD1005C7N1 □ TM01	7.1	G,H,J	25	100/250	6000	0.13	570
MWSD1005C7N2 □ TM01	7.2	G,H,J	25	100/250	6000	0.13	570
MWSD1005C7N3 □ TM01	7.3	G,H,J	25	100/250	6000	0.13	570
MWSD1005C7N5 □ TM01	7.5	G,H,J	25	100/250	6000	0.13	570
MWSD1005C8N2 □ TM01	8.2	G,H,J	25	100/250	5500	0.14	540
MWSD1005C8N6 □ TM01	8.6	G,H,J	25	100/250	5500	0.14	540
MWSD1005C8N7 □ TM01	8.7	G,H,J	25	100/250	5500	0.14	540
MWSD1005C8N8 □ TM01	8.8	G,H,J	25	100/250	5500	0.14	540
MWSD1005C8N9 □ TM01	8.9	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N0 □ TM01	9.0	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N1 □ TM01	9.1	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N2 □ TM01	9.2	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N3 □ TM01	9.3	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N4 □ TM01	9.4	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N5 □ TM01	9.5	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N6 □ TM01	9.6	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N7 □ TM01	9.7	G,H,J	25	100/250	5500	0.14	540

SPECIFICATIONS MWSD1005C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I _r
MWSD1005C9N8 □ TM01	9.8	G,H,J	25	100/250	5500	0.14	540
MWSD1005C9N9 □ TM01	9.9	G,H,J	25	100/250	5500	0.14	540
MWSD1005C10N □ TM01	10	G,H,J	25	100/250	5500	0.17	500
MWSD1005C11N □ TM01	11	G,H,J	30	100/250	5500	0.14	500
MWSD1005C12N □ TM01	12	G,H,J	30	100/250	5500	0.14	500
MWSD1005C13N □ TM01	13	G,H,J	25	100/250	5000	0.21	430
MWSD1005C15N □ TM01	15	G,H,J	30	100/250	5000	0.16	460
MWSD1005C16N □ TM01	16	G,H,J	25	100/250	4500	0.24	370
MWSD1005C18N □ TM01	18	G,H,J	25	100/250	4500	0.27	370
MWSD1005C19N □ TM01	19	G,H,J	25	100/250	4500	0.27	370
MWSD1005C20N □ TM01	20	G,H,J	25	100/250	4000	0.27	370
MWSD1005C22N □ TM01	22	G,H,J	25	100/250	4000	0.30	310
MWSD1005C23N □ TM01	23	G,H,J	25	100/250	3800	0.30	310
MWSD1005C24N □ TM01	24	G,H,J	25	100/250	3500	0.52	280
MWSD1005C27N □ TM01	27	G,H,J	25	100/250	3500	0.52	280
MWSD1005C30N □ TM01	30	G,H,J	25	100/250	3300	0.58	270
MWSD1005C33N □ TM01	33	G,H,J	25	100/250	3200	0.63	260
MWSD1005C36N □ TM01	36	G,H,J	25	100/250	3100	0.63	260
MWSD1005C39N □ TM01	39	G,H,J	25	100/250	3000	0.70	250
MWSD1005C40N □ TM01	40	G,H,J	25	100/250	3000	0.70	250
MWSD1005C43N □ TM01	43	G,H,J	25	100/250	3000	0.70	250
MWSD1005C47N □ TM01	47	G,H,J	25	100/200	2900	1.08	210
MWSD1005C51N □ TM01	51	G,H,J	25	100/200	2850	1.08	210
MWSD1005C56N □ TM01	56	G,H,J	25	100/200	2800	1.17	200
MWSD1005C62N □ TM01	62	G,H,J	20	100/200	2600	1.82	145
MWSD1005C68N □ TM01	68	G,H,J	20	100/200	2500	1.96	140
MWSD1005C72N □ TM01	72	G,H,J	20	100/150	2500	2.10	135
MWSD1005C75N □ TM01	75	G,H,J	20	100/150	2400	2.10	135
MWSD1005C82N □ TM01	82	G,H,J	20	100/150	2300	2.24	130
MWSD1005C91N □ TM01	91	G,H,J	20	100/150	2100	2.38	125
MWSD1005CR10 □ TM01	100	G,H,J	20	100/150	1500	2.52	120
MWSD1005CR12 □ TM01	120	G,H,J	20	100/150	1000	2.66	110

MWSD1005C-M11 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I _r
MWSD1005C1N3 □ TM11	1.3	C,D	20	100/250	>6000	0.017	1200
MWSD1005C2N2 □ TM11	2.2	C,D	25	100/250	>6000	0.027	1000
MWSD1005C2N4 □ TM11	2.4	C,D	25	100/250	>6000	0.027	1000
MWSD1005C3N3 □ TM11	3.3	C,D	30	100/250	>6000	0.040	900
MWSD1005C3N4 □ TM11	3.4	C,D	30	100/250	>6000	0.040	900
MWSD1005C3N6 □ TM11	3.6	C,D	30	100/250	>6000	0.040	900
MWSD1005C3N9 □ TM11	3.9	C,D	30	100/250	>6000	0.040	900
MWSD1005C4N7 □ TM11	4.7	C,D	30	100/250	>6000	0.051	800
MWSD1005C5N1 □ TM11	5.1	D	30	100/250	>6000	0.051	800
MWSD1005C5N6 □ TM11	5.6	C,D	30	100/250	>6000	0.051	800

SPECIFICATIONS MWSD1608C-M01 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min. Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	I _r
MWSD1608C2N2 □ TM01	2.2	D	16	100/250	6000	0.042	700
MWSD1608C3N6 □ TM01	3.6	C,D	25	100/250	6000	0.059	850
MWSD1608C3N9 □ TM01	3.9	C,D	35	100/250	6000	0.059	850
MWSD1608C4N3 □ TM01	4.3	C,D	35	100/250	6000	0.059	850
MWSD1608C4N7 □ TM01	4.7	D	35	100/250	6000	0.059	850
MWSD1608C5N6 □ TM01	5.6	C,D	35	100/250	6000	0.082	750
MWSD1608C6N2 □ TM01	6.2	C,D	35	100/250	6000	0.082	750
MWSD1608C6N8 □ TM01	6.8	C,D	35	100/250	6000	0.082	750
MWSD1608C7N5 □ TM01	7.5	C,D	35	100/250	6000	0.082	750
MWSD1608C8N2 □ TM01	8.2	C,D	35	100/250	6000	0.11	650
MWSD1608C8N7 □ TM01	8.7	C,D	35	100/250	6000	0.11	650
MWSD1608C9N1 □ TM01	9.1	C,D	35	100/250	6000	0.11	650
MWSD1608C9N5 □ TM01	9.5	D	35	100/250	6000	0.11	650
MWSD1608C10N □ TM01	10	G,J	35	100/250	6000	0.11	650
MWSD1608C11N □ TM01	11	G,J	35	100/250	6000	0.11	650
MWSD1608C12N □ TM01	12	G,J	35	100/250	6000	0.13	600
MWSD1608C13N □ TM01	13	G,J	35	100/250	6000	0.13	600
MWSD1608C15N □ TM01	15	G,J	40	100/250	5500	0.13	600
MWSD1608C16N □ TM01	16	G,J	40	100/250	5500	0.16	550
MWSD1608C18N □ TM01	18	G,J	40	100/250	5000	0.16	550
MWSD1608C20N □ TM01	20	G,J	40	100/250	4300	0.16	550
MWSD1608C22N □ TM01	22	G,J	40	100/250	3900	0.17	500
MWSD1608C24N □ TM01	24	G,J	40	100/250	3800	0.21	500
MWSD1608C27N □ TM01	27	G,J	40	100/250	3700	0.21	440
MWSD1608C30N □ TM01	30	G,J	40	100/250	3300	0.23	420
MWSD1608C33N □ TM01	33	G,J	40	100/250	3200	0.23	420
MWSD1608C36N □ TM01	36	G,J	40	100/250	2900	0.26	400
MWSD1608C39N □ TM01	39	G,J	40	100/250	2800	0.26	400
MWSD1608C43N □ TM01	43	G,J	40	100/200	2700	0.29	380
MWSD1608C47N □ TM01	47	G,J	38	100/200	2600	0.29	380
MWSD1608C51N □ TM01	51	G,J	38	100/200	2500	0.33	370
MWSD1608C56N □ TM01	56	G,J	38	100/200	2400	0.35	360
MWSD1608C62N □ TM01	62	G,J	38	100/200	2300	0.51	280
MWSD1608C68N □ TM01	68	G,J	38	100/200	2200	0.38	340
MWSD1608C72N □ TM01	72	G,J	34	100/150	2100	0.56	270
MWSD1608C75N □ TM01	75	G,J	34	100/150	2050	0.56	270
MWSD1608C82N □ TM01	82	G,J	34	100/150	2000	0.60	250
MWSD1608C91N □ TM01	91	G,J	34	100/150	1900	0.64	230
MWSD1608CR10 □ TM01	100	G,J	34	100/150	1800	0.68	220
MWSD1608CR11 □ TM01	110	G,J	32	100/150	1700	1.20	200
MWSD1608CR12 □ TM01	120	G,J	32	100/150	1600	1.30	180
MWSD1608CR13 □ TM01	130	G,J	32	100/150	1450	1.40	170
MWSD1608CR15 □ TM01	150	G,J	32	100/150	1400	1.50	160
MWSD1608CR16 □ TM01	160	G,J	32	100/150	1350	2.10	150
MWSD1608CR18 □ TM01	180	G,J	25	100/100	1300	2.20	140
MWSD1608CR20 □ TM01	200	G,J	25	100/100	1250	2.40	120
MWSD1608CR22 □ TM01	220	G,J	25	100/100	1200	2.50	120
MWSD1608CR27 □ TM01	270	G,J	30	100/100	960	3.40	110
MWSD1608CR33 □ TM01	330	G,J	30	100/100	800	5.50	85
MWSD1608CR39 □ TM01	390	G,J	30	100/100	800	6.20	80
MWSD1608CR47 □ TM01	470	G,J	30	100/100	700	7.00	75

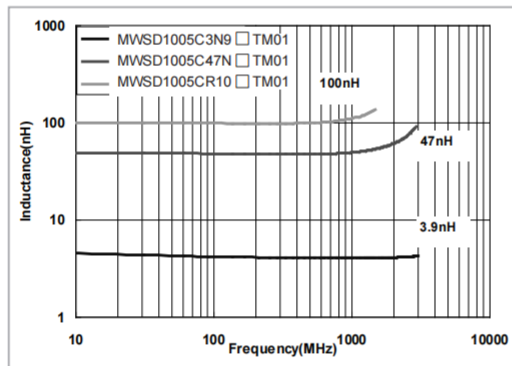
SPECIFICATIONS MWSD1608C-M11 TYPE

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Min.Self-resonant Frequency	Max. DC Resistance	Max. Rated Current
Units	nH	-	-	MHz	MHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
MWSD1608C2N2 □ TM11	2.2	C,D	18	100/250	>6000	0.018	1400
MWSD1608C3N9 □ TM11	3.9	C,D	38	100/250	>6000	0.032	1000
MWSD1608C5N6 □ TM11	5.6	C,D	38	100/250	>6000	0.045	900
MWSD1608C6N8 □ TM11	6.8	C,D	38	100/250	>6000	0.045	900
MWSD1608C8N2 □ TM11	8.2	S,D	38	100/250	>6000	0.058	800
MWSD1608C10N □ TM11	10	G,J	38	100/250	5000	0.070	800
MWSD1608C12N □ TM11	12	G,J	38	100/250	5000	0.071	750
MWSD1608C15N □ TM11	15	G,J	42	100/250	4500	0.085	700
MWSD1608C18N □ TM11	18	G,J	42	100/250	3500	0.085	700
MWSD1608C22N □ TM11	22	G,J	42	100/250	3200	0.099	640
MWSD1608C27N □ TM11	27	G,J	42	100/250	2800	0.116	590
MWSD1608C33N □ TM11	33	J	42	100/250	2500	0.132	550

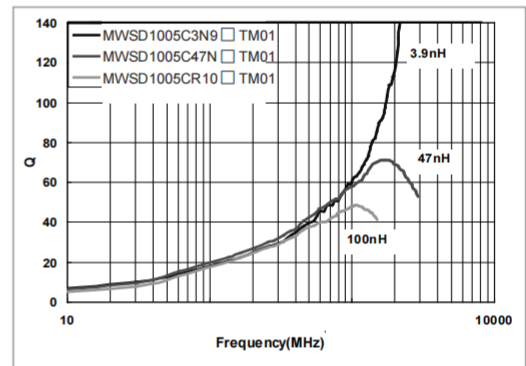
※: Please refer to "Measurement Notice for RF Inductors".

TYPICAL ELECTRICAL CHARACTERISTICS

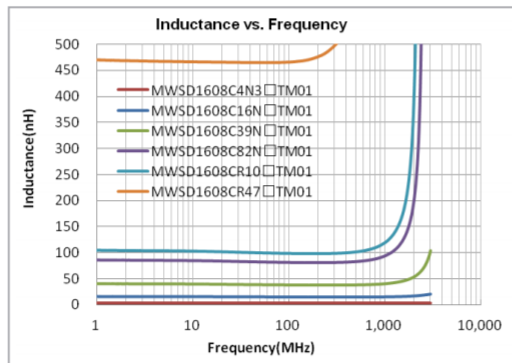
MWSD1005C-M TYPE
Inductance vs. Frequency Characteristics



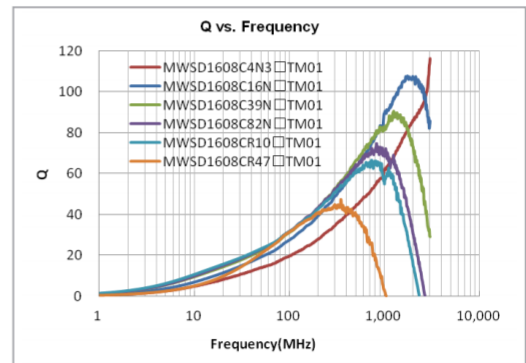
Q vs. Frequency Characteristics



MWSD1608C-M01 TYPE
Inductance vs. Frequency Characteristics



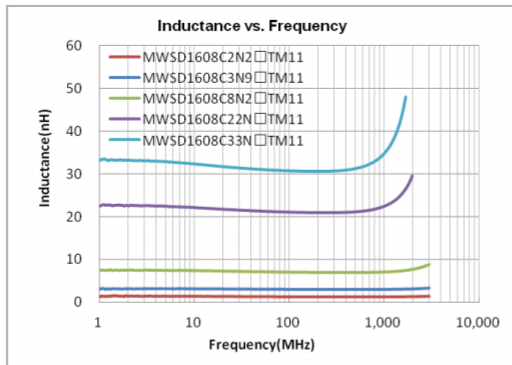
Q vs. Frequency Characteristics



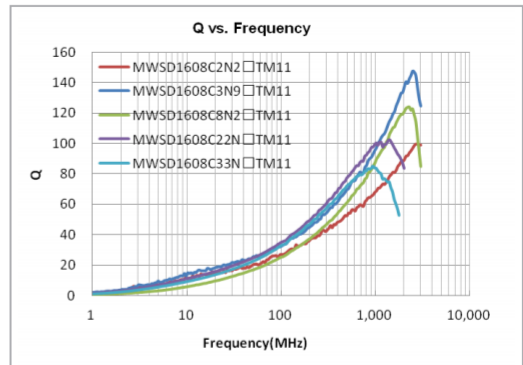
Multilayer Chip Ferrite Inductor
 Multilayer Chip Inductor for Choke
 Multilayer Chip Power Inductor
 Multilayer Ultra High Q Chip Ceramic Inductor
 Multilayer High Q Chip Ceramic Inductor
 Multilayer Chip Ceramic Inductor
 Multilayer High Frequency Chip Ceramic Inductor
 Wire Wound Chip Ferrite Inductor
 SMD Power Inductor

**DETAIL
ELECTRICAL
CHARACTERISTICS**

**MWSD1608C-M11 TYPE
Inductance vs. Frequency Characteristics**



Q vs. Frequency Characteristics



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