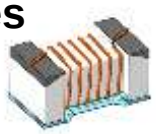
Wire Wound Chip Ceramic Inductor- MWSD-C-M8X Series

Operating Temp. : -40℃~+125℃



FEATURES

- Small chip suitable for surface mounting
- High rated current can be applied because of lower DC resistance than MWSD-C-M series
- Tight inductance tolerance and high reliability
- Single-sided package, thinner than SDWL-C-M8X series

APPLICATIONS

- High frequency circuit in telecommunication and other equipments
- Mobile phones and other electronic devices
- Bluetooth, W-LAN, Broadband network

PRODUCT IDENTIFICATION

MWSD ① **1005** ② **C** ③ **10N** ④ **□** ⑤ **T** ⑥ **M81** ⑦

①

Type	
MWSD	Wire Wound Chip Inductor

②

External Dimensions
1005 [0402]
1608[0603]

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
S	±0.3nH
D	±0.5nH
G	±2%
H	±3%
J	±5%
K	±10%

⑥

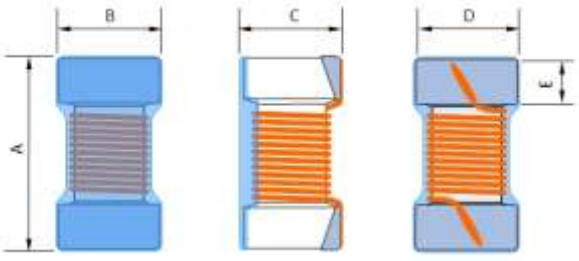
Packing	
B	Bulk Package
T	Tape & Reel

⑦

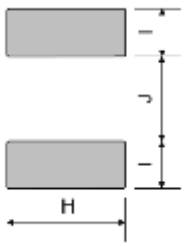
Internal Code	
M81	Internal Code

SHAPE AND DIMENSIONS

MWSD1005C-M8X



Land Pattern



Unit: mm

Series	A	B	C	D	E REF.	H REF.	I REF.	J REF.
MWSD1005C-M8X	1.1±0.1	0.53±0.1	0.6±0.1	0.5±0.1	0.20	0.65	0.35	0.50
MWSD1608C-M8X	1.60±0.20	1.00±0.20	0.90±0.20	0.95	0.30	1.02	0.64	0.64

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 **Tel**: 0086-755-2983233 **Fax**: 0086-755-82269029 **E-Mail**: sunlord@sunlordinc.com

SPECIFICATIONS

MWSD1005C -M81 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	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
MWSD1005C1N3☐TM81	1.3	C,S,D,K	20	100/250	18.0	0.012	3150
MWSD1005C1N5☐TM81	1.5	B,C,S,D,K	20	100/250	18.0	0.028	2100
MWSD1005C1N6☐TM81	1.6	B,C,S,D,K	20	100/250	18.0	0.045	1450
MWSD1005C1N7☐TM81	1.7	B,C,S,D,K	20	100/250	18.0	0.065	1150
MWSD1005C1N8☐TM81	1.8	B,C,S,D,K	20	100/250	18.0	0.065	1150
MWSD1005C2N2☐TM81	2.2	B,C,S,D,K	30	100/250	15.5	0.022	2530
MWSD1005C2N3☐TM81	2.3	B,C,S,D,K	30	100/250	15.5	0.022	2530
MWSD1005C2N4☐TM81	2.4	B,C,S,D,K	30	100/250	15.5	0.022	2530
MWSD1005C2N5☐TM81	2.5	B,C,S,D,K	30	100/250	15.5	0.030	2100
MWSD1005C2N6☐TM81	2.6	B,C,S,D,K	30	100/250	14.5	0.035	1950
MWSD1005C2N7☐TM81	2.7	B,C,S,D,K	28	100/250	14.0	0.047	1500
MWSD1005C2N8☐TM81	2.8	B,C,S,D,K	27	100/250	13.5	0.047	1500
MWSD1005C2N9☐TM81	2.9	B,C,S,D,K	25	100/250	12.5	0.047	1500
MWSD1005C3N0☐TM81	3.0	B,C,S,D,K	20	100/250	12.5	0.063	1350
MWSD1005C3N3☐TM81	3.3	B,C,S,D,K	30	100/250	14.0	0.030	2000
MWSD1005C3N4☐TM81	3.4	B,C,S,D,J,K	30	100/250	10.0	0.030	1950
MWSD1005C3N5☐TM81	3.5	B,C,S,D,J,K	30	100/250	10.0	0.030	1950
MWSD1005C3N6☐TM81	3.6	B,C,S,D,J,K	30	100/250	10.0	0.030	1950
MWSD1005C3N7☐TM81	3.7	B,C,S,D,J,K	35	100/250	10.0	0.030	1950
MWSD1005C3N8☐TM81	3.8	B,C,S,D,J,K	35	100/250	10.0	0.030	1950
MWSD1005C3N9☐TM81	3.9	B,C,S,D,J,K	35	100/250	10.0	0.030	1950
MWSD1005C4N0☐TM81	4.0	B,C,S,D,J,K	30	100/250	10.0	0.030	1950
MWSD1005C4N1☐TM81	4.1	B,C,S,D,J,K	30	100/250	9.6	0.044	1800
MWSD1005C4N2☐TM81	4.2	B,C,S,D,J,K	30	100/250	9.6	0.044	1800
MWSD1005C4N3☐TM81	4.3	B,C,S,D,J,K	32	100/250	9.6	0.044	1800
MWSD1005C4N4☐TM81	4.4	B,C,S,D,J,K	34	100/250	9.6	0.052	1600
MWSD1005C4N5☐TM81	4.5	B,C,S,D,J,K	34	100/250	9.6	0.060	1450
MWSD1005C4N6☐TM81	4.6	B,C,S,D,J,K	32	100/250	9.6	0.060	1450
MWSD1005C4N7☐TM81	4.7	B,C,S,D,J,K	31	100/250	8.0	0.071	1200
MWSD1005C4N8☐TM81	4.8	B,C,S,D,J,K	30	100/250	8.0	0.071	1200
MWSD1005C4N9☐TM81	4.9	B,C,S,D,J,K	27	100/250	8.0	0.071	1200
MWSD1005C5N0☐TM81	5.0	B,C,S,D,J,K	32	100/250	10.0	0.040	1770
MWSD1005C5N1☐TM81	5.1	B,C,S,D,J,K	35	100/250	8.0	0.040	1770
MWSD1005C5N2☐TM81	5.2	B,C,S,D,J,K	35	100/250	8.0	0.040	1770
MWSD1005C5N3☐TM81	5.3	B,C,S,D,J,K	35	100/250	8.0	0.040	1770
MWSD1005C5N4☐TM81	5.4	B,C,S,D,J,K	35	100/250	8.0	0.040	1770
MWSD1005C5N5☐TM81	5.5	B,C,S,D,J,K	35	100/250	8.0	0.040	1770
MWSD1005C5N6☐TM81	5.6	B,C,S,D,J,K	35	100/250	8.0	0.040	1770
MWSD1005C5N7☐TM81	5.7	B,C,S,D,J,K	30	100/250	8.0	0.040	1770
MWSD1005C5N8☐TM81	5.8	B,C,S,D,J,K	30	100/250	8.0	0.040	1770
MWSD1005C5N9☐TM81	5.9	B,C,S,D,J,K	30	100/250	8.0	0.040	1770
MWSD1005C6N0☐TM81	6.0	B,C,S,D,J,K	32	100/250	8.0	0.056	1600
MWSD1005C6N1☐TM81	6.1	B,C,S,D,J,K	32	100/250	8.0	0.056	1600
MWSD1005C6N2☐TM81	6.2	B,C,S,D,J,K	33	100/250	8.0	0.056	1600
MWSD1005C6N3☐TM81	6.3	G,H,J,K	33	100/250	7.8	0.057	1600
MWSD1005C6N4☐TM81	6.4	G,H,J,K	33	100/250	7.0	0.065	1380
MWSD1005C6N5☐TM81	6.5	G,H,J,K	32	100/250	7.0	0.065	1380
MWSD1005C6N6☐TM81	6.6	G,H,J,K	30	100/250	7.0	0.078	1280
MWSD1005C6N7☐TM81	6.7	G,H,J,K	30	100/250	7.0	0.078	1280
MWSD1005C6N8☐TM81	6.8	G,H,J,K	30	100/250	7.0	0.068	1450

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 **Tel**: 0086-755-2983233 **Fax**: 0086-755-82269029 **E-Mail**: sunlord@sunlordinc.com

SPECIFICATIONS

MWSD1005C -M81 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	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
MWSD1005C6N9☐TM81	6.9	G,H,J,K	32	100/250	8.5	0.069	1420
MWSD1005C7N0☐TM81	7.0	G,H,J,K	33	100/250	8.0	0.069	1420
MWSD1005C7N1☐TM81	7.1	G,H,J,K	32	100/250	8.0	0.069	1420
MWSD1005C7N2☐TM81	7.2	G,H,J,K	32	100/250	7.0	0.050	1700
MWSD1005C7N3☐TM81	7.3	G,H,J,K	32	100/250	7.0	0.050	1700
MWSD1005C7N4☐TM81	7.4	G,H,J,K	30	100/250	7.0	0.050	1700
MWSD1005C7N5☐TM81	7.5	G,H,J,K	35	100/250	7.0	0.050	1700
MWSD1005C7N6☐TM81	7.6	G,H,J,K	30	100/250	7.0	0.050	1700
MWSD1005C7N7☐TM81	7.7	G,H,J,K	30	100/250	7.0	0.050	1700
MWSD1005C7N8☐TM81	7.8	G,H,J,K	30	100/250	7.0	0.050	1700
MWSD1005C7N9☐TM81	7.9	G,H,J,K	30	100/250	7.0	0.050	1700
MWSD1005C8N0☐TM81	8.0	G,H,J,K	30	100/250	7.0	0.050	1700
MWSD1005C8N1☐TM81	8.1	G,H,J,K	32	100/250	6.5	0.069	1500
MWSD1005C8N2☐TM81	8.2	G,H,J,K	32	100/250	6.5	0.069	1500
MWSD1005C8N3☐TM81	8.3	G,H,J,K	32	100/250	6.5	0.069	1500
MWSD1005C8N4☐TM81	8.4	G,H,J,K	32	100/250	6.5	0.069	1500
MWSD1005C8N5☐TM81	8.5	G,H,J,K	32	100/250	6.5	0.069	1500
MWSD1005C8N6☐TM81	8.6	G,H,J,K	31	100/250	6.5	0.070	1420
MWSD1005C8N7☐TM81	8.7	G,H,J,K	31	100/250	6.5	0.070	1420
MWSD1005C8N8☐TM81	8.8	G,H,J,K	31	100/250	6.5	0.070	1420
MWSD1005C8N9☐TM81	8.9	G,H,J,K	31	100/250	6.5	0.070	1420
MWSD1005C9N0☐TM81	9.0	G,H,J,K	31	100/250	6.5	0.070	1500
MWSD1005C9N1☐TM81	9.1	G,H,J,K	32	100/250	6.5	0.080	1400
MWSD1005C9N2☐TM81	9.2	G,H,J,K	32	100/250	6.0	0.081	1400
MWSD1005C9N3☐TM81	9.3	G,H,J,K	34	100/250	6.0	0.081	1400
MWSD1005C9N4☐TM81	9.4	G,H,J,K	33	100/250	6.0	0.081	1400
MWSD1005C9N5☐TM81	9.5	G,H,J,K	32	100/250	6.0	0.081	1400
MWSD1005C9N6☐TM81	9.6	G,H,J,K	33	100/250	6.0	0.081	1400
MWSD1005C9N7☐TM81	9.7	G,H,J,K	33	100/250	6.0	0.081	1400
MWSD1005C9N8☐TM81	9.8	G,H,J,K	34	100/250	6.0	0.081	1400
MWSD1005C9N9☐TM81	9.9	G,H,J,K	32	100/250	6.0	0.081	1400
MWSD1005C10N☐TM81	10	G,H,J,K	31	100/250	6.0	0.081	1400
MWSD1005C11N☐TM81	11	G,H,J,K	32	100/250	6.2	0.083	1400
MWSD1005C12N☐TM81	12	G,H,J,K	30	100/250	5.2	0.093	1240
MWSD1005C13N☐TM81	13	G,H,J,K	30	100/250	5.2	0.093	1240
MWSD1005C14N☐TM81	14	G,H,J,K	31	100/250	5.2	0.111	1150
MWSD1005C15N☐TM81	15	G,H,J,K	31	100/250	5.5	0.114	1150
MWSD1005C16N☐TM81	16	G,H,J,K	31	100/250	5.0	0.126	1000
MWSD1005C17N☐TM81	17	G,H,J,K	31	100/250	5.2	0.130	1000
MWSD1005C18N☐TM81	18	G,H,J,K	30	100/250	5.5	0.156	1050
MWSD1005C19N☐TM81	19	G,H,J,K	30	100/250	5.0	0.126	920
MWSD1005C20N☐TM81	20	G,H,J,K	30	100/250	4.5	0.186	800
MWSD1005C21N☐TM81	21	G,H,J,K	30	100/250	4.5	0.202	780
MWSD1005C22N☐TM81	22	G,H,J,K	30	100/250	4.5	0.202	780
MWSD1005C23N☐TM81	23	G,H,J,K	29	100/250	4.5	0.201	760
MWSD1005C24N☐TM81	24	G,H,J,K	31	100/250	4.0	0.212	770
MWSD1005C25N☐TM81	25	G,H,J,K	31	100/250	4.1	0.221	750
MWSD1005C26N☐TM81	26	G,H,J,K	29	100/250	4.1	0.282	720
MWSD1005C27N☐TM81	27	G,H,J,K	30	100/250	4.0	0.288	680
MWSD1005C30N☐TM81	30	G,H,J,K	30	100/250	3.8	0.309	660

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 **Tel**: 0086-755-2983233 **Fax**: 0086-755-82269029 **E-Mail**: sunlord@sunlordinc.com

SPECIFICATIONS

MWSD1005C -M81 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	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
MWSD1005C33N□TM81	33	G,H,J,K	30	100/250	3.6	0.336	620
MWSD1005C36N□TM81	36	G,H,J,K	30	100/250	3.5	0.431	540
MWSD1005C39N□TM81	39	G,H,J,K	28	100/250	3.4	0.456	530
MWSD1005C43N□TM81	43	G,H,J,K	30	100/250	3.4	0.516	515
MWSD1005C47N□TM81	47	G,H,J,K	25	100/250	3.2	0.648	440
MWSD1005C51N□TM81	51	G,H,J,K	25	100/250	2.9	0.696	415
MWSD1005C53N□TM81	53	G,H,J,K	25	100/200	2.9	0.696	415
MWSD1005C56N□TM81	56	G,H,J,K	25	100/200	2.9	0.996	340
MWSD1005C68N□TM81	68	G,H,J,K	25	100/250	2.5	1.128	320
MWSD1005C75N□TM81	75	G,H,J,K	25	100/200	2.4	1.224	320

MWSD1608C -M81 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	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
MWSD1608C2N2□TM81	2.2	C	24	100/250	15000	0.018	3200
MWSD1608C2N4□TM81	2.4	C	18	100/250	15000	0.026	2400
MWSD1608C3N0□TM81	3.0	C,	13	100/250	15000	0.17	670
MWSD1608C3N9□TM81	3.9	C,G	30	100/250	10000	0.028	2200
MWSD1608C4N1□TM81	4.1	C,G	30	100/250	10000	0.028	2200
MWSD1608C4N2□TM81	4.2	C,G	30	100/250	10000	0.028	2200
MWSD1608C4N3□TM81	4.3	C,G	35	100/250	11600	0.036	2100
MWSD1608C4N7□TM81	4.7	C,G	25	100/250	10400	0.054	1500
MWSD1608C4N9□TM81	4.9	C,G	23	100/250	7300	0.081	1200
MWSD1608C6N0□TM81	6.0	C,G	40	100/250	6650	0.040	1900
MWSD1608C6N5□TM81	6.5	C,G	40	100/250	6650	0.040	1900
MWSD1608C6N8□TM81	6.8	C,G	40	100/250	6650	0.040	1900
MWSD1608C7N2□TM81	7.2	C,G	38	100/250	6650	0.040	1900
MWSD1608C7N5□TM81	7.5	C,G	35	100/250	7000	0.048	1500
MWSD1608C8N2□TM81	8.2	C,G	38	100/250	4750	0.052	1600
MWSD1608C8N4□TM81	8.4	C,G	38	100/250	4750	0.052	1600
MWSD1608C8N7□TM81	8.7	C,G	38	100/250	4750	0.052	1600
MWSD1608C9N1□TM81	9.1	C,G	38	100/250	4750	0.052	1600
MWSD1608C9N5□TM81	9.5	C,G	38	100/250	4750	0.052	1600
MWSD1608C9N9□TM81	9.9	C,G	38	100/250	4750	0.052	1600
MWSD1608C10N□TM81	10	G,J	38	100/250	4750	0.052	1600
MWSD1608C11N□TM81	11	G,J	40	100/250	4750	0.052	1600
MWSD1608C12N□TM81	12	G,J	37	100/250	5000	0.064	1500
MWSD1608C13N□TM81	13	G,J	37	100/250	5000	0.064	1500
MWSD1608C15N□TM81	15	G,J	38	100/250	4600	0.075	1400
MWSD1608C16N□TM81	16	G,J	40	100/250	4100	0.075	1400
MWSD1608C17N□TM81	17	G,J	40	100/250	4600	0.075	1400
MWSD1608C18N□TM81	18	G,J	40	100/250	4600	0.075	1400
MWSD1608C19N□TM81	19	G,J	40	100/250	3900	0.075	1400
MWSD1608C22N□TM81	22	G,J	40	100/250	3450	0.086	1300
MWSD1608C23N□TM81	23	G,J	40	100/250	3450	0.086	1300
MWSD1608C24N□TM81	24	G,J	40	100/250	3450	0.086	1300
MWSD1608C25N□TM81	25	G,J	40	100/250	3600	0.098	1200

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 **Tel**: 0086-755-2983233 **Fax**: 0086-755-82269029 **E-Mail**: sunlord@sunlordinc.com

SPECIFICATIONS

MWSD1608C -M81 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	GHz	Ω	mA
Symbol	L	-	Q	Freq.	S.R.F	DCR	Ir
MWSD1608C27N☐TM81	27	G,J	40	100/250	3600	0.098	1200
MWSD1608C28N☐TM81	28	G,J	40	100/250	3600	0.098	1200
MWSD1608C30N☐TM81	30	G,J	40	100/250	2880	0.12	1100
MWSD1608C31N☐TM81	31	G,J	40	100/250	3150	0.11	1100
MWSD1608C34N☐TM81	34	G,J	40	100/250	3000	0.15	1050
MWSD1608C36N☐TM81	36	G,J	37	100/250	3000	0.20	910
MWSD1608C37N☐TM81	37	G,J	37	100/250	3000	0.20	910
MWSD1608C39N☐TM81	39	G,J	40	100/250	3280	0.16	1000
MWSD1608C41N☐TM81	41	G,J	40	100/250	3100	0.16	1000
MWSD1608C43N☐TM81	43	G,J	40	100/250	2780	0.21	840
MWSD1608C44N☐TM81	44	G,J	40	100/250	2780	0.21	840
MWSD1608C47N☐TM81	47	G,J	32	100/200	2700	0.23	830
MWSD1608C48N☐TM81	48	G,J	32	100/200	2700	0.23	830
MWSD1608C51N☐TM81	51	G,J	32	100/200	2700	0.23	830
MWSD1608C52N☐TM81	52	G,J	35	100/200	2750	0.27	750
MWSD1608C56N☐TM81	56	G,J	38	100/200	2600	0.26	770
MWSD1608C58N☐TM81	58	G,J	35	100/200	2400	0.30	700
MWSD1608C68N☐TM81	68	G,J	37	100/200	2380	0.38	630
MWSD1608C69N☐TM81	69	G,J	37	100/200	2380	0.38	630
MWSD1608C72N☐TM81	72	G,J	34	100/150	2100	0.47	560
MWSD1608C73N☐TM81	73	G,J	28	100/150	2100	0.41	590
MWSD1608C75N☐TM81	75	G,J	28	100/150	2050	0.41	590
MWSD1608C78N☐TM81	78	G,J	28	100/150	2280	0.41	590
MWSD1608C82N☐TM81	82	G,J	34	100/150	2230	0.50	550
MWSD1608C83N☐TM81	83	G,J	34	100/150	2110	0.50	550
MWSD1608C91N☐TM81	91	G,J	33	100/150	1900	0.54	520
MWSD1608C94N☐TM81	94	G,J	34	100/150	1750	0.63	490
MWSD1608CR10☐TM81	100	G,J	34	100/150	1750	0.63	490
MWSD1608CR11☐TM81	110	G,J	32	100/150	1730	0.70	450
MWSD1608CR12☐TM81	120	G,J	32	100/150	1650	0.72	450
MWSD1608CR15☐TM81	150	G,J	28	100/150	1450	0.87	420
MWSD1608CR18☐TM81	180	G,J	25	100/100	1380	1.65	310
MWSD1608CR20☐TM81	200	G,J	25	100/100	1350	1.74	290
MWSD1608CR21☐TM81	210	G,J	27	100/100	1330	1.98	280
MWSD1608CR22☐TM81	220	G,J	25	100/100	1330	2.08	280
MWSD1608CR25☐TM81	250	G,J	24	100/100	1300	2.28	250
MWSD1608CR27☐TM81	270	G,J	24	100/100	1200	2.42	260
MWSD1608CR30☐TM81	300	G,J	25	100/100	1050	3.12	220
MWSD1608CR33☐TM81	330	G,J	25	100/100	1000	3.84	190
MWSD1608CR36☐TM81	360	G,J	25	100/100	900	3.98	190
MWSD1608CR39☐TM81	390	G,J	25	100/100	1000	4.23	190

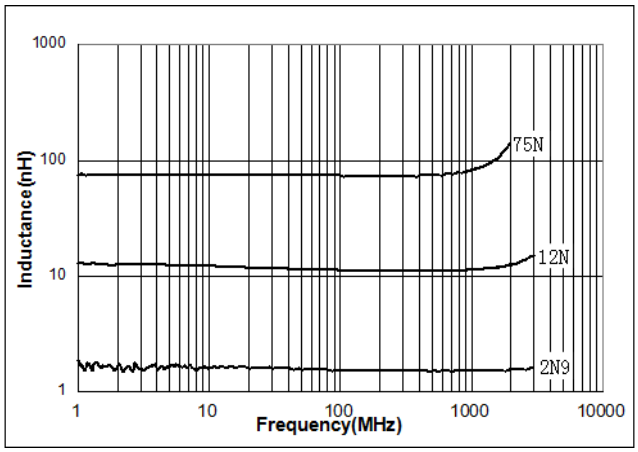
※: Please refer to "Measurement Notice for RF Inductors".

Sunlord Industrial Park, Dafuyuan Industrial Zone, Guanlan, Shenzhen, China 518110 **Tel**: 0086-755-2983233 **Fax**: 0086-755-82269029 **E-Mail**: sunlord@sunlordinc.com

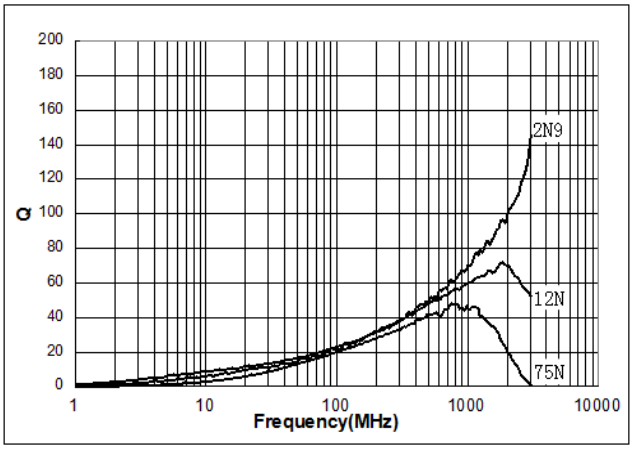
TYPICAL ELECTRICAL CHARACTERISTICS

MWSD1005C-M81 TYPE

Inductance vs. Frequency Characteristics

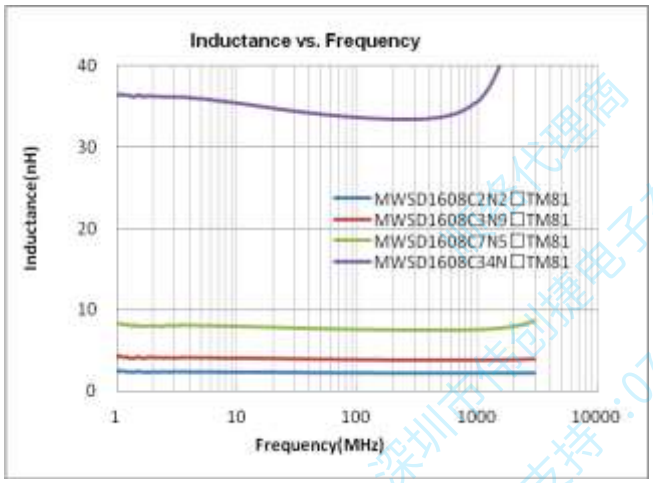


Q vs. Frequency Characteristics



MWSD1608C -M81 TYPE

Inductance vs. Frequency Characteristics



Q vs. Frequency Characteristics