



Chip Inductor _ Precision Winding (High Q) Type

HDTC Ceramic High Q Series

0402(1005)Size



Ordering Information

HDTC **0402** **C** **1N0** **J** **S** **T - LF**

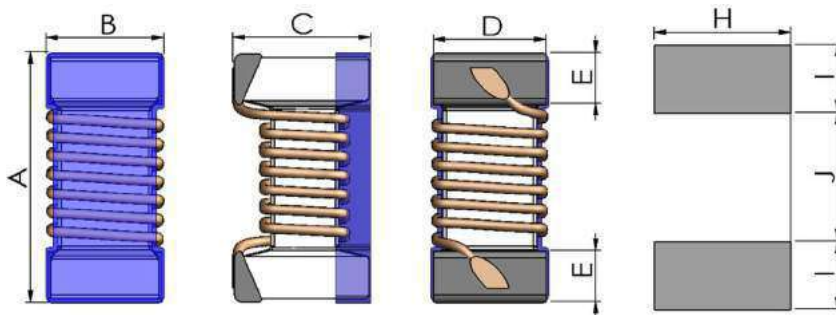
(1) (2) (3) (4) (5) (6) (7) (8)

- (1) Series Name
- (2) Product Dimension (L*W Inch)
- (3) Features
- (4) Inductance Value (1N0: 1.0nH / 10N: 10nH / R10: 100nH)
- (5) Inductance Tolerance

Code	B	C	S	D	G	H	J	K
Tolerance	±0.1nH	±0.2nH	±0.3nH	±0.5nH	±2%	±3%	±5%	±10%

- (6) Termination Materials (S: Sn)
- (7) Packing Style (T: Taping / B: Bulk)
- (8) Lead Free

Shape & Dimensions



Series	Dimensions (mm)							
	A	B	C	D	E	H	I	J
HDTC0402C/HP	1.19 Max.	0.64 Max.	0.66 Max.	0.5±0.1	0.2±0.1	0.66 Typ.	0.35 Typ.	0.50 Typ.
HDTC0402H/P	1.1±0.1	0.6±0.1	0.6±0.1	0.5±0.1	0.2±0.1	0.66 Typ.	0.35 Typ.	0.50 Typ.
HDTC0603	1.8 Max.	1.12 Max.	1.02 Max.	0.8 Typ.	0.3±0.1	1.02 Typ.	0.64 Typ.	0.64 Typ.
HDTC0805	2.3 Max.	1.73 Max.	1.52 Max.	1.27 Typ.	0.4±0.1	1.78 Typ.	0.76 Typ.	1.02 Typ.
HDTC0805CW	2.3 Max.	1.73 Max.	1.52 Max.	1.27 Typ.	0.4±0.1	1.78 Typ.	0.76 Typ.	1.02 Typ.



Testing Conditions

Unless otherwise specified

Temperature : Ordinary Temperature

Humidity : Ordinary Humidity

Atmospheric Pressure : 86 to 106 kPa

(5 to 35°C)

(<70% RH)

In case of doubt

Temperature : 20±2°C

Humidity : 50 to 65% RH

Atmospheric Pressure : 86 to 106 kPa



HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402C Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q		RDC (Ω) Max.	Ir (mA) Max.	SRF (GHz) Min.
			Min.	Test Freq. (MHz)			
HDTC0402C1N0_ST-LF	1.0	250	20	250	0.045	1360	12.70
HDTC0402C1N2_ST-LF	1.2	250	15	250	0.090	740	12.90
HDTC0402C1N8_ST-LF	1.8	250	20	250	0.070	1040	12.00
HDTC0402C1N9_ST-LF	1.9	250	20	250	0.070	1040	11.30
HDTC0402C2N0_ST-LF	2.0	250	23	250	0.070	1040	11.00
HDTC0402C2N2_ST-LF	2.2	250	22	250	0.070	960	10.80
HDTC0402C2N4_ST-LF	2.4	250	22	250	0.068	790	10.50
HDTC0402C2N7_ST-LF	2.7	250	24	250	0.120	640	10.40
HDTC0402C3N0_ST-LF	3.0	250	24	250	0.066	840	7.00
HDTC0402C3N3_ST-LF	3.3	250	24	250	0.066	840	7.00
HDTC0402C3N6_ST-LF	3.6	250	24	250	0.066	840	6.80
HDTC0402C3N9_ST-LF	3.9	250	24	250	0.066	840	6.00
HDTC0402C4N3_ST-LF	4.3	250	22	250	0.091	700	6.00
HDTC0402C4N7_ST-LF	4.7	250	20	250	0.130	640	4.77
HDTC0402C5N1_ST-LF	5.1	250	23	250	0.083	800	4.80
HDTC0402C5N6_ST-LF	5.6	250	25	250	0.083	760	5.80
HDTC0402C6N2_ST-LF	6.2	250	25	250	0.083	760	4.80
HDTC0402C6N8_ST-LF	6.8	250	24	250	0.083	680	4.80
HDTC0402C7N5_ST-LF	7.5	250	25	250	0.100	680	4.80
HDTC0402C8N2_ST-LF	8.2	250	25	250	0.100	680	4.40
HDTC0402C8N7_ST-LF	8.7	250	25	250	0.200	480	4.10
HDTC0402C9N0_ST-LF	9.0	250	25	250	0.100	680	4.16
HDTC0402C9N5_ST-LF	9.5	250	25	250	0.200	480	4.00
HDTC0402C10N_ST-LF	10	250	24	250	0.200	480	3.90
HDTC0402C11N_ST-LF	11	250	26	250	0.120	640	3.68
HDTC0402C12N_ST-LF	12	250	26	250	0.120	640	3.60
HDTC0402C13N_ST-LF	13	250	24	250	0.210	440	3.45
HDTC0402C15N_ST-LF	15	250	26	250	0.170	560	3.28
HDTC0402C16N_ST-LF	16	250	25	250	0.220	560	3.10
HDTC0402C18N_ST-LF	18	250	25	250	0.23	420	3.10



HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402C Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q		RDC (Ω) Max.	Ir (mA) Max.	SRF (GHz) Min.
			Min.	Test Freq. (MHz)			
HDTC0402C19N_ST-LF	19	250	25	250	0.20	480	3.04
HDTC0402C20N_ST-LF	20	250	26	250	0.250	420	3.00
HDTC0402C22N_ST-LF	22	250	25	250	0.300	400	2.80
HDTC0402C23N_ST-LF	23	250	28	250	0.300	400	2.72
HDTC0402C24N_ST-LF	24	250	28	250	0.300	400	2.70
HDTC0402C27N_ST-LF	27	250	28	250	0.300	400	2.48
HDTC0402C30N_ST-LF	30	250	24	250	0.300	400	2.35
HDTC0402C33N_ST-LF	33	250	24	250	0.300	400	2.35
HDTC0402C36N_ST-LF	36	250	24	250	0.440	320	2.32
HDTC0402C39N_ST-LF	39	250	26	250	0.550	200	2.10
HDTC0402C40N_ST-LF	40	250	24	250	0.440	320	2.24
HDTC0402C43N_ST-LF	43	250	25	250	0.810	100	2.03
HDTC0402C47N_ST-LF	47	250	25	250	0.830	150	2.10
HDTC0402C51N_ST-LF	51	250	25	250	0.820	100	1.75
HDTC0402C56N_ST-LF	56	250	25	250	0.970	100	1.76
HDTC0402C68N_ST-LF	68	250	24	250	1.120	100	1.62
HDTC0402C82N_ST-LF	82	250	25	250	1.550	50	1.26
HDTC0402CR10_ST-LF	100	250	24	250	2.000	30	1.16
HDTC0402CR12_ST-LF	120	250	24	250	2.200	50	1.10



HDTC High Q Series 0402(1005)

Size Electrical Characteristics

HDTC0402H Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q		RDC (Ω) Max.	I _r (mA) Max.	SRF (GHz) Min.
			Min.	Test Freq. (MHz)			
HDTC0402H1N5_ST-LF	1.5	100	10	250	0.03	1000	18.0
HDTC0402H1N6_ST-LF	1.6	100	10	250	0.07	750	17.0
HDTC0402H1N7_ST-LF	1.7	100	10	250	0.10	640	17.0
HDTC0402H1N8_ST-LF	1.8	100	10	250	0.16	460	16.0
HDTC0402H2N4_ST-LF	2.4	100	20	250	0.05	850	15.0
HDTC0402H2N5_ST-LF	2.5	100	20	250	0.05	850	15.0
HDTC0402H2N6_ST-LF	2.6	100	20	250	0.05	850	15.0
HDTC0402H2N7_ST-LF	2.7	100	20	250	0.05	850	15.0
HDTC0402H2N8_ST-LF	2.8	100	20	250	0.05	850	15.0
HDTC0402H2N9_ST-LF	2.9	100	20	250	0.07	750	15.0
HDTC0402H3N0_ST-LF	3.0	100	20	250	0.07	750	15.0
HDTC0402H3N1_ST-LF	3.1	100	20	250	0.13	570	14.0
HDTC0402H3N2_ST-LF	3.2	100	15	250	0.17	500	14.0
HDTC0402H3N9_ST-LF	3.9	100	25	250	0.07	750	10.0
HDTC0402H4N1_ST-LF	4.1	100	25	250	0.07	750	10.0
HDTC0402H4N3_ST-LF	4.3	100	25	250	0.07	750	10.0
HDTC0402H4N4_ST-LF	4.4	100	25	250	0.07	750	8.0
HDTC0402H4N5_ST-LF	4.5	100	25	250	0.07	750	8.0
HDTC0402H4N6_ST-LF	4.6	100	25	250	0.07	750	8.0
HDTC0402H4N7_ST-LF	4.7	100	25	250	0.07	750	8.0
HDTC0402H4N8_ST-LF	4.8	100	25	250	0.07	750	8.0
HDTC0402H4N9_ST-LF	4.9	100	25	250	0.12	600	8.0
HDTC0402H5N0_ST-LF	5.0	100	25	250	0.12	600	8.0
HDTC0402H5N1_ST-LF	5.1	100	25	250	0.12	600	8.0
HDTC0402H5N8_ST-LF	5.8	100	25	250	0.09	700	8.0
HDTC0402H6N2_ST-LF	6.2	100	25	250	0.09	700	8.0
HDTC0402H6N3_ST-LF	6.3	100	25	250	0.09	700	6.0
HDTC0402H6N4_ST-LF	6.4	100	25	250	0.09	700	6.0
HDTC0402H6N5_ST-LF	6.5	100	25	250	0.09	700	6.0
HDTC0402H6N6_ST-LF	6.6	100	25	250	0.09	700	6.0

HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402H Size

HONGDA Part No.	Inductance	L Test Freq.	Q	Q Test Freq.	RDC (Ω)	I _r (mA)	SRF (GHz)
	(nH)	(MHz)	Min.	(MHz)	Max.	Max.	Min.
HDTC0402H6N7_ST-LF	6.7	100	25	250	0.09	700	6.0
HDTC0402H6N8_ST-LF	6.8	100	25	250	0.09	700	6.0
HDTC0402H6N9_ST-LF	6.9	100	25	250	0.13	570	6.0
HDTC0402H7N0_ST-LF	7.0	100	25	250	0.13	570	6.0
HDTC0402H7N1_ST-LF	7.1	100	25	250	0.13	570	6.0
HDTC0402H7N2_ST-LF	7.2	100	25	250	0.13	570	6.0
HDTC0402H7N3_ST-LF	7.3	100	25	250	0.13	570	6.0
HDTC0402H7N5_ST-LF	7.5	100	25	250	0.13	570	6.0
HDTC0402H8N2_ST-LF	8.2	100	25	250	0.14	540	5.5
HDTC0402H8N6_ST-LF	8.6	100	25	250	0.14	540	5.5
HDTC0402H8N7_ST-LF	8.7	100	25	250	0.14	540	5.5
HDTC0402H8N8_ST-LF	8.8	100	25	250	0.14	540	5.5
HDTC0402H8N9_ST-LF	8.9	100	25	250	0.14	540	5.5
HDTC0402H9N0_ST-LF	9.0	100	25	250	0.14	540	5.5
HDTC0402H9N1_ST-LF	9.1	100	25	250	0.14	540	5.5
HDTC0402H9N2_ST-LF	9.2	100	25	250	0.14	540	5.5
HDTC0402H9N3_ST-LF	9.3	100	25	250	0.14	540	5.5
HDTC0402H9N4_ST-LF	9.4	100	25	250	0.14	540	5.5
HDTC0402H9N5_ST-LF	9.5	100	25	250	0.14	540	5.5
HDTC0402H9N6_ST-LF	9.6	100	25	250	0.14	540	5.5
HDTC0402H9N7_ST-LF	9.7	100	25	250	0.14	540	5.5
HDTC0402H9N8_ST-LF	9.8	100	25	250	0.14	540	5.5
HDTC0402H9N9_ST-LF	9.9	100	25	250	0.14	540	5.5
HDTC0402H10N_ST-LF	10	100	25	250	0.17	500	5.5
HDTC0402H11N_ST-LF	11	100	30	250	0.14	500	5.5
HDTC0402H12N_ST-LF	12	100	30	250	0.14	500	5.5
HDTC0402H13N_ST-LF	13	100	25	250	0.21	430	5.0
HDTC0402H15N_ST-LF	15	100	30	250	0.16	460	5.0
HDTC0402H16N_ST-LF	16	100	25	250	0.24	370	4.5
HDTC0402H18N_ST-LF	18	100	25	250	0.27	370	4.5

HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402H Size

HONGDA Part No.	Inductance (nH)	L	Q	Q	RDC (Ω)	Ir (mA)	SRF (GHz)
		Test Freq. (MHz)	Min.	Test Freq. (MHz)	Max.	Max.	Min.
HDTC0402H19N_ST-LF	19	100	25	250	0.27	370	4.5
HDTC0402H20N_ST-LF	20	100	25	250	0.27	370	4.0
HDTC0402H22N_ST-LF	22	100	25	250	0.30	310	4.0
HDTC0402H23N_ST-LF	23	100	25	250	0.30	310	3.8
HDTC0402H24N_ST-LF	24	100	25	250	0.52	280	3.5
HDTC0402H27N_ST-LF	27	100	25	250	0.52	280	3.5
HDTC0402H30N_ST-LF	30	100	25	250	0.58	270	3.3
HDTC0402H33N_ST-LF	33	100	25	250	0.63	260	3.2
HDTC0402H36N_ST-LF	36	100	25	250	0.63	260	3.1
HDTC0402H39N_ST-LF	39	100	25	250	0.70	250	3.0
HDTC0402H40N_ST-LF	40	100	25	250	0.70	250	3.0
HDTC0402H43N_ST-LF	43	100	25	250	0.70	250	3.0
HDTC0402H47N_ST-LF	47	100	25	250	1.08	210	2.9
HDTC0402H51N_ST-LF	51	100	25	250	1.08	210	2.85
HDTC0402H56N_ST-LF	56	100	25	250	1.17	200	2.8
HDTC0402H62N_ST-LF	62	100	20	250	1.82	145	2.6
HDTC0402H68N_ST-LF	68	100	20	250	1.96	140	2.5
HDTC0402H72N_ST-LF	72	100	20	250	2.10	135	2.5
HDTC0402H75N_ST-LF	75	100	20	250	2.10	135	2.4
HDTC0402H82N_ST-LF	82	100	20	250	2.24	130	2.3
HDTC0402H91N_ST-LF	91	100	20	250	2.38	125	2.1
HDTC0402HR10_ST-LF	100	100	20	250	2.52	120	1.5
HDTC0402HR12_ST-LF	120	100	20	250	2.66	110	1.0

HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402P Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q		RDC (Ω) Max.	I _r (mA) Max.	SRF (GHz) Min.
			Min.	Test Freq. (MHz)			
HDTC0402P1N3_ST-LF	1.3	100	20	250	0.012	3150	18.0
HDTC0402P1N5_ST-LF	1.5	100	20	250	0.028	2100	18.0
HDTC0402P1N6_ST-LF	1.6	100	20	250	0.045	1450	18.0
HDTC0402P1N7_ST-LF	1.7	100	20	250	0.065	1150	18.0
HDTC0402P2N2_ST-LF	2.2	100	30	250	0.022	2530	15.5
HDTC0402P2N3_ST-LF	2.3	100	30	250	0.022	2530	15.5
HDTC0402P2N4_ST-LF	2.4	100	30	250	0.022	2530	15.5
HDTC0402P2N5_ST-LF	2.5	100	30	250	0.030	2100	15.5
HDTC0402P2N6_ST-LF	2.6	100	30	250	0.035	1950	14.5
HDTC0402P2N7_ST-LF	2.7	100	28	250	0.047	1500	14.0
HDTC0402P2N8_ST-LF	2.8	100	27	250	0.047	1500	13.5
HDTC0402P2N9_ST-LF	2.9	100	25	250	0.047	1500	12.5
HDTC0402P3N0_ST-LF	3.0	100	20	250	0.063	1350	12.5
HDTC0402P3N3_ST-LF	3.3	100	30	250	0.030	2000	14.0
HDTC0402P3N4_ST-LF	3.4	100	30	250	0.030	1950	10.0
HDTC0402P3N5_ST-LF	3.5	100	30	250	0.030	1950	10.0
HDTC0402P3N6_ST-LF	3.6	100	30	250	0.030	1950	10.0
HDTC0402P3N7_ST-LF	3.7	100	35	250	0.030	1950	10.0
HDTC0402P3N8_ST-LF	3.8	100	35	250	0.030	1950	10.0
HDTC0402P3N9_ST-LF	3.9	100	35	250	0.030	1950	10.0
HDTC0402P4N0_ST-LF	4.0	100	30	250	0.030	1950	10.0
HDTC0402P4N1_ST-LF	4.1	100	30	250	0.044	1800	9.6
HDTC0402P4N2_ST-LF	4.2	100	30	250	0.044	1800	9.6
HDTC0402P4N3_ST-LF	4.3	100	32	250	0.044	1800	9.6
HDTC0402P4N4_ST-LF	4.4	100	34	250	0.052	1600	9.6
HDTC0402P4N5_ST-LF	4.5	100	34	250	0.060	1450	9.6
HDTC0402P4N6_ST-LF	4.6	100	32	250	0.060	1450	9.6
HDTC0402P4N7_ST-LF	4.7	100	31	250	0.071	1200	8.0
HDTC0402P4N8_ST-LF	4.8	100	30	250	0.071	1200	8.0
HDTC0402P4N9_ST-LF	4.9	100	27	250	0.071	1200	8.0

HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402P Size

HONGDA Part No.	Inductance	L	Q	Q	RDC (Ω)	Ir (mA)	SRF (GHz)
	(nH)	Test Freq. (MHz)	Min.	Test Freq. (MHz)	Max.	Max.	Min.
HDTC0402P5N0_ST-LF	5.0	100	32	250	0.040	1770	10.0
HDTC0402P5N1_ST-LF	5.1	100	35	250	0.040	1770	8.0
HDTC0402P5N2_ST-LF	5.2	100	35	250	0.040	1770	8.0
HDTC0402P5N3_ST-LF	5.3	100	35	250	0.040	1770	8.0
HDTC0402P5N4_ST-LF	5.4	100	35	250	0.040	1770	8.0
HDTC0402P5N5_ST-LF	5.5	100	35	250	0.040	1770	8.0
HDTC0402P5N6_ST-LF	5.6	100	35	250	0.040	1770	8.0
HDTC0402P5N7_ST-LF	5.7	100	30	250	0.040	1770	8.0
HDTC0402P5N8_ST-LF	5.8	100	30	250	0.040	1770	8.0
HDTC0402P5N9_ST-LF	5.9	100	30	250	0.040	1770	8.0
HDTC0402P6N0_ST-LF	6.0	100	32	250	0.056	1600	8.0
HDTC0402P6N1_ST-LF	6.1	100	32	250	0.056	1600	8.0
HDTC0402P6N2_ST-LF	6.2	100	33	250	0.056	1600	8.0
HDTC0402P6N3_ST-LF	6.3	100	32	250	0.057	1600	7.8
HDTC0402P6N4_ST-LF	6.4	100	33	250	0.065	1380	7.0
HDTC0402P6N5_ST-LF	6.5	100	32	250	0.065	1380	7.0
HDTC0402P6N6_ST-LF	6.6	100	30	250	0.078	1280	7.0
HDTC0402P6N7_ST-LF	6.7	100	30	250	0.078	1280	7.0
HDTC0402P6N8_ST-LF	6.8	100	30	250	0.068	1450	7.0
HDTC0402P6N9_ST-LF	6.9	100	32	250	0.069	1420	8.5
HDTC0402P7N0_ST-LF	7.0	100	33	250	0.069	1420	8.0
HDTC0402P7N1_ST-LF	7.1	100	32	250	0.069	1420	7.0
HDTC0402P7N2_ST-LF	7.2	100	32	250	0.050	1700	7.0
HDTC0402P7N3_ST-LF	7.3	100	32	250	0.050	1700	7.0
HDTC0402P7N4_ST-LF	7.4	100	30	250	0.050	1700	7.0
HDTC0402P7N5_ST-LF	7.5	100	35	250	0.050	1700	7.0
HDTC0402P7N6_ST-LF	7.6	100	30	250	0.050	1700	7.0
HDTC0402P7N7_ST-LF	7.7	100	30	250	0.050	1700	7.0
HDTC0402P7N8_ST-LF	7.8	100	30	250	0.050	1700	7.0
HDTC0402P7N9_ST-LF	7.9	100	30	250	0.050	1700	7.0



HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402P Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q Min.	Q Test Freq. (MHz)	RDC (Ω)	Ir (mA)	SRF (GHz)
					Max.	Max.	Min.
HDTC0402P8N0_ST-LF	8.0	100	30	250	0.050	1700	7.0
HDTC0402P8N1_ST-LF	8.1	100	32	250	0.069	1500	6.5
HDTC0402P8N2_ST-LF	8.2	100	32	250	0.069	1500	6.5
HDTC0402P8N3_ST-LF	8.3	100	32	250	0.069	1500	6.5
HDTC0402P8N4_ST-LF	8.4	100	32	250	0.069	1500	6.5
HDTC0402P8N5_ST-LF	8.5	100	32	250	0.069	1500	6.5
HDTC0402P8N6_ST-LF	8.6	100	31	250	0.070	1420	6.5
HDTC0402P8N7_ST-LF	8.7	100	31	250	0.070	1420	6.5
HDTC0402P8N8_ST-LF	8.8	100	31	250	0.070	1420	6.5
HDTC0402P8N9_ST-LF	8.9	100	31	250	0.070	1420	6.5
HDTC0402P9N0_ST-LF	9.0	100	30	250	0.070	1500	6.5
HDTC0402P9N1_ST-LF	9.1	100	32	250	0.080	1400	6.5
HDTC0402P9N2_ST-LF	9.2	100	32	250	0.081	1400	6.0
HDTC0402P9N3_ST-LF	9.3	100	34	250	0.081	1400	6.0
HDTC0402P9N4_ST-LF	9.4	100	33	250	0.081	1400	6.0
HDTC0402P9N5_ST-LF	9.5	100	32	250	0.081	1400	6.0
HDTC0402P9N6_ST-LF	9.6	100	33	250	0.081	1400	6.0
HDTC0402P9N7_ST-LF	9.7	100	33	250	0.081	1400	6.0
HDTC0402P9N8_ST-LF	9.8	100	34	250	0.081	1400	6.0
HDTC0402P9N9_ST-LF	9.9	100	32	250	0.081	1400	6.0
HDTC0402P10N_ST-LF	10	100	31	250	0.081	1400	6.0
HDTC0402P12N_ST-LF	12	100	30	250	0.093	1240	5.2
HDTC0402P13N_ST-LF	13	100	30	250	0.093	1240	5.2
HDTC0402P14N_ST-LF	14	100	31	250	0.111	1150	5.2
HDTC0402P15N_ST-LF	15	100	31	250	0.114	1150	5.5
HDTC0402P16N_ST-LF	16	100	31	250	0.126	1000	5.0
HDTC0402P17N_ST-LF	17	100	31	250	0.126	1000	5.0
HDTC0402P18N_ST-LF	18	100	30	250	0.130	1050	5.2
HDTC0402P19N_ST-LF	19	100	30	250	0.156	920	5.0
HDTC0402P20N_ST-LF	20	100	30	250	0.186	800	4.5



HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402P Size

HONGDA Part No.	Inductance	L	Q	Q	RDC (Ω)	Ir (mA)	SRF (GHz)
	(nH)	Test Freq. (MHz)	Min.	Test Freq. (MHz)	Max.	Max.	Min.
HDTC0402P21N_ST-LF	21	100	30	250	0.202	780	4.5
HDTC0402P22N_ST-LF	22	100	30	250	0.202	780	4.5
HDTC0402P23N_ST-LF	23	100	29	250	0.201	760	4.5
HDTC0402P24N_ST-LF	24	100	31	250	0.212	770	4.0
HDTC0402P25N_ST-LF	25	100	31	250	0.221	750	4.1
HDTC0402P26N_ST-LF	26	100	29	250	0.282	720	4.1
HDTC0402P27N_ST-LF	27	100	30	250	0.288	680	4.0
HDTC0402P30N_ST-LF	30	100	30	250	0.309	660	3.8
HDTC0402P33N_ST-LF	33	100	30	250	0.336	620	3.6
HDTC0402P36N_ST-LF	36	100	30	250	0.431	540	3.5
HDTC0402P39N_ST-LF	39	100	28	250	0.456	530	3.4
HDTC0402P43N_ST-LF	43	100	30	250	0.516	515	3.4
HDTC0402P47N_ST-LF	47	100	25	250	0.648	440	3.2
HDTC0402P51N_ST-LF	51	100	25	250	0.696	415	2.9
HDTC0402P53N_ST-LF	53	100	25	250	0.696	415	2.9
HDTC0402P56N_ST-LF	56	100	25	250	0.996	340	2.9
HDTC0402P68N_ST-LF	68	100	25	250	1.128	320	2.5
HDTC0402P75N_ST-LF	75	100	25	250	1.224	320	2.4

HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402HP Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q		RDC (Ω) Max.	I _r (mA) Max.	SRF (GHz) Min.
			Min.	Test Freq. (MHz)			
HDTC0402HP1N0_ST-LF	1.0	250	20	250	0.030	2300	16.0
HDTC0402HP2N0_ST-LF	2.0	250	24	250	0.038	2100	15.2
HDTC0402HP2N2_ST-LF	2.2	250	25	250	0.038	2100	15.1
HDTC0402HP2N4_ST-LF	2.4	250	23	250	0.042	2000	14.0
HDTC0402HP2N7_ST-LF	2.7	250	24	250	0.085	1500	13.0
HDTC0402HP3N3_ST-LF	3.3	250	28	250	0.045	1700	12.8
HDTC0402HP3N6_ST-LF	3.6	250	28	250	0.045	1700	11.7
HDTC0402HP3N9_ST-LF	3.9	250	28	250	0.045	1700	9.50
HDTC0402HP4N3_ST-LF	4.3	250	27	250	0.050	1600	7.15
HDTC0402HP4N7_ST-LF	4.7	250	23	250	0.075	1500	6.85
HDTC0402HP5N1_ST-LF	5.1	250	20	250	0.125	1200	6.80
HDTC0402HP5N6_ST-LF	5.6	250	29	250	0.055	1600	6.50
HDTC0402HP6N2_ST-LF	6.2	250	29	250	0.055	1600	5.80
HDTC0402HP6N8_ST-LF	6.8	250	28	250	0.070	1500	5.80
HDTC0402HP7N5_ST-LF	7.5	250	26	250	0.100	1400	5.40
HDTC0402HP8N2_ST-LF	8.2	250	28	250	0.065	1500	5.40
HDTC0402HP8N7_ST-LF	8.7	250	29	250	0.070	1500	5.00
HDTC0402HP9N0_ST-LF	9.0	250	27	250	0.080	1400	5.00
HDTC0402HP9N5_ST-LF	9.5	250	28	250	0.090	1400	4.70
HDTC0402HP10N_ST-LF	10	250	26	250	0.110	1300	4.70
HDTC0402HP11N_ST-LF	11	250	29	250	0.065	1400	4.70
HDTC0402HP12N_ST-LF	12	250	28	250	0.100	1200	4.40
HDTC0402HP13N_ST-LF	13	250	27	250	0.155	870	4.20
HDTC0402HP15N_ST-LF	15	250	28	250	0.115	1100	3.90
HDTC0402HP16N_ST-LF	16	250	27	250	0.150	850	3.70
HDTC0402HP17N_ST-LF	17	250	26	250	0.230	650	3.70
HDTC0402HP18N_ST-LF	18	250	26	250	0.120	900	3.55
HDTC0402HP19N_ST-LF	19	250	26	250	0.145	850	3.50
HDTC0402HP20N_ST-LF	20	250	27	250	0.185	780	3.50
HDTC0402HP21N_ST-LF	21	250	25	250	0.460	450	1.70



HDTC High Q Series 0402(1005) Size

Electrical Characteristics

HDTC0402HP Size

HONGDA Part No.	Inductance (nH)	L Test Freq. (MHz)	Q Min.	Q Test Freq. (MHz)	RDC (Ω)	Ir (mA)	SRF (GHz)
					Max.	Max.	Min.
HDTC0402HP22N_ST-LF	22	250	28	250	0.160	800	3.30
HDTC0402HP23N_ST-LF	23	250	28	250	0.160	800	3.30
HDTC0402HP24N_ST-LF	24	250	27	250	0.210	700	3.15
HDTC0402HP25N_ST-LF	25	250	26	250	0.260	700	3.15
HDTC0402HP26N_ST-LF	26	250	27	250	0.290	700	3.15
HDTC0402HP27N_ST-LF	27	250	27	250	0.350	450	3.20
HDTC0402HP30N_ST-LF	30	250	25	250	0.350	450	2.90
HDTC0402HP33N_ST-LF	33	250	28	250	0.330	490	2.80
HDTC0402HP36N_ST-LF	36	250	26	250	0.390	480	2.80
HDTC0402HP37N_ST-LF	37	250	26	250	0.480	470	2.70
HDTC0402HP39N_ST-LF	39	250	28	250	0.430	450	2.60
HDTC0402HP40N_ST-LF	40	250	28	250	0.430	450	2.60
HDTC0402HP43N_ST-LF	43	250	26	250	0.520	450	2.50
HDTC0402HP47N_ST-LF	47	250	28	250	0.580	420	2.40
HDTC0402HP51N_ST-LF	51	250	26	250	0.700	360	2.30
HDTC0402HP56N_ST-LF	56	250	31	250	0.900	330	2.07
HDTC0402HP68N_ST-LF	68	250	31	250	1.00	320	1.84
HDTC0402HP82N_ST-LF	82	250	31	250	1.10	315	1.75
HDTC0402HPR10_ST-LF	100	250	30	250	1.20	310	1.58
HDTC0402HPR12_ST-LF	120	250	29	250	1.20	310	1.25
HDTC0402HPR15_ST-LF	150	100	29	250	2.0	240	1.14
HDTC0402HPR16_ST-LF	160	100	29	250	2.0	240	1.65
HDTC0402HPR18_ST-LF	180	100	32	250	2.1	240	1.08
HDTC0402HPR22_ST-LF	220	100	32	250	3.1	160	0.96



HDTC High Q Series 0603(1608) Size

Electrical Characteristics

HDTC0603C Size

HONGDA Part No.	Inductance	L Test Freq.	Q	Q Test Freq.	RDC (Ω)	Ir (mA)	SRF (GHz)
	(nH)	(MHz)	Min.	(MHz)	Max.	Max.	Min.
HDTC0603C1N6_ST-LF	1.6	250	24	250	0.030	700	12.50
HDTC0603C1N8_ST-LF	1.8	250	16	250	0.045	700	12.50
HDTC0603C2N2_ST-LF	2.2	250	13	250	0.250	100	12.50
HDTC0603C3N3_ST-LF	3.3	250	35	250	0.045	700	5.90
HDTC0603C3N6_ST-LF	3.6	250	22	250	0.063	700	5.90
HDTC0603C3N9_ST-LF	3.9	250	22	250	0.080	700	6.90
HDTC0603C4N3_ST-LF	4.3	250	22	250	0.063	700	5.90
HDTC0603C4N7_ST-LF	4.7	250	20	250	0.116	700	5.80
HDTC0603C5N1_ST-LF	5.1	250	20	250	0.140	700	5.70
HDTC0603C5N6_ST-LF	5.6	250	26	250	0.075	700	4.76
HDTC0603C6N8_ST-LF	6.8	250	27	250	0.110	700	5.80
HDTC0603C7N5_ST-LF	7.5	250	28	250	0.106	700	4.80
HDTC0603C8N2_ST-LF	8.2	250	30	250	0.115	700	4.20
HDTC0603C8N7_ST-LF	8.7	250	28	250	0.109	700	4.60
HDTC0603C9N5_ST-LF	9.5	250	28	250	0.135	700	5.40
HDTC0603C10N_ST-LF	10	250	31	250	0.130	700	4.80
HDTC0603C11N_ST-LF	11	250	30	250	0.130	700	4.00
HDTC0603C12N_ST-LF	12	250	35	250	0.130	700	4.00
HDTC0603C13N_ST-LF	13	250	35	250	0.130	700	4.00
HDTC0603C15N_ST-LF	15	250	35	250	0.170	700	4.00
HDTC0603C16N_ST-LF	16	250	34	250	0.170	700	3.30
HDTC0603C18N_ST-LF	18	250	35	250	0.170	700	3.10
HDTC0603C22N_ST-LF	22	250	38	250	0.190	700	3.00
HDTC0603C23N_ST-LF	23	250	38	250	0.190	700	2.85
HDTC0603C24N_ST-LF	24	250	36	250	0.190	700	2.65
HDTC0603C27N_ST-LF	27	250	40	250	0.220	600	2.80
HDTC0603C30N_ST-LF	30	250	37	250	0.220	600	2.25
HDTC0603C33N_ST-LF	33	250	40	250	0.220	600	2.30
HDTC0603C36N_ST-LF	36	250	37	250	0.250	600	2.08
HDTC0603C39N_ST-LF	39	250	40	250	0.250	600	2.20
HDTC0603C43N_ST-LF	43	250	38	250	0.280	600	2.00
HDTC0603C47N_ST-LF	47	200	38	200	0.280	600	2.00



HDTC High Q Series 0603(1608) Size

Electrical Characteristics

HDTC0603C Size

HONGDA Part No.	Inductance	L Test Freq.	Q	Q Test Freq.	RDC (Ω)	Ir (mA)	SRF (GHz)
	(nH)	(MHz)	Min.	(MHz)	Max.	Max.	Min.
HDTC0603C51N_ST-LF	51	200	35	200	0.270	600	1.90
HDTC0603C56N_ST-LF	56	200	38	200	0.310	600	1.90
HDTC0603C68N_ST-LF	68	200	37	200	0.340	600	1.70
HDTC0603C72N_ST-LF	72	150	34	150	0.490	400	1.70
HDTC0603C82N_ST-LF	82	150	34	150	0.540	400	1.70
HDTC0603H91N_ST-LF	91	150	34	150	0.640	230	1.90
HDTC0603CR10_ST-LF	100	150	34	150	0.580	400	1.40
HDTC0603CR12_ST-LF	120	150	32	150	0.650	300	1.30
HDTC0603CR15_ST-LF	150	150	28	150	0.920	280	0.99
HDTC0603CR18_ST-LF	180	100	25	100	1.250	240	0.99
HDTC0603CR20_ST-LF	200	100	25	100	1.980	200	0.90
HDTC0603CR22_ST-LF	220	100	25	100	2.100	200	0.90
HDTC0603CR25_ST-LF	250	100	25	100	3.550	120	0.822
HDTC0603CR27_ST-LF	270	100	26	100	2.160	170	0.83
HDTC0603CR33_ST-LF	330	100	25	100	3.890	100	0.90
HDTC0603CR39_ST-LF	390	100	25	100	4.350	100	0.78



HDTC High Q Series 0805(2012) Size

Electrical Characteristics

HDTC0805CW Size

HONGDA Part No.	Inductance	L Test Freq.	Q	Q Test Freq.	RDC(Ω)	Ir (mA)	SRF (GHz)
	(nH)	(MHz)	Min.	(MHz)	Max.	Max.	Min.
HDTC0805CW3R3_ST-LF	3.3	250	50	1500	0.08	600	7900
HDTC0805CW5R6_ST-LF	5.6	250	65	1000	0.08	600	5500
HDTC0805CW6R8_ST-LF	6.8	250	50	1000	0.11	600	5500
HDTC0805CW8R2_ST-LF	8.2	250	50	1000	0.12	600	4700
HDTC0805CW100_ST-LF	10	250	60	500	0.10	600	4200
HDTC0805CW120_ST-LF	12	250	50	500	0.15	600	4000
HDTC0805CW150_ST-LF	15	250	50	500	0.17	600	3400
HDTC0805CW180_ST-LF	18	250	50	500	0.20	600	3300
HDTC0805CW220_ST-LF	22	250	55	500	0.22	600	2600
HDTC0805CW270_ST-LF	27	250	55	500	0.25	500	2500
HDTC0805CW330_ST-LF	33	250	60	500	0.27	500	2050
HDTC0805CW390_ST-LF	39	250	60	500	0.29	500	2000
HDTC0805CW470_ST-LF	47	200	60	500	0.31	500	1650
HDTC0805CW560_ST-LF	56	200	60	500	0.34	500	1550
HDTC0805CW680_ST-LF	68	200	60	500	0.38	500	1450
HDTC0805CW820_ST-LF	82	150	65	500	0.42	400	1300
HDTC0805CW121_ST-LF	120	150	50	250	0.51	400	1100
HDTC0805CW151_ST-LF	150	100	50	250	0.56	400	920
HDTC0805CW181_ST-LF	180	100	50	250	0.64	400	870
HDTC0805CW221_ST-LF	220	100	50	250	0.70	400	850
HDTC0805CW271_ST-LF	270	100	48	250	1.00	350	650
HDTC0805CW331_ST-LF	330	100	48	250	1.4	310	600
HDTC0805CW391_ST-LF	390	100	48	250	1.5	290	560
HDTC0805CW471_ST-LF	470	50	33	100	1.76	250	380
HDTC0805CW561_ST-LF	560	25	23	50	1.90	230	340
HDTC0805CW681_ST-LF	680	25	23	50	2.20	190	188
HDTC0805CW821_ST-LF	820	25	23	50	2.35	180	215
HDTC0805CW102_ST-LF	1000	25	20	50	2.5	170	220



Electrical Performance

Inductance; Q factor

Inductance; Q factor shall meet item 5 when measured on the condition of

Table 1. Table 1

Measuring Equipment	Impedance analyzer HP4291 or equivalent
Measuring Frequency	see item 5
Measuring signal level	-20dBm

DC Resistance

D.C Resistance shall meet item 5 when measured on the condition of

Table 2. Table 2

Measuring Equipment	LCR Meter HP4263A or equivalent
---------------------	---------------------------------

Self Resonant Frequency (S.R.F)

S.R.F. shall meet item 5 when measured on the condition of

Table 3. Table 3

Measuring Equipment	Impedance analyzer HP4291, Network analyzer HP8753 or equivalent
---------------------	--

Rated current

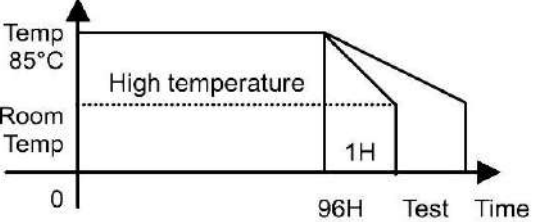
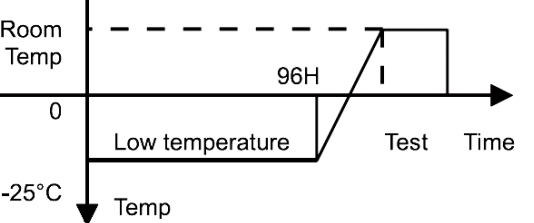
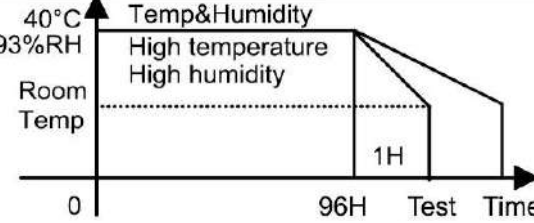
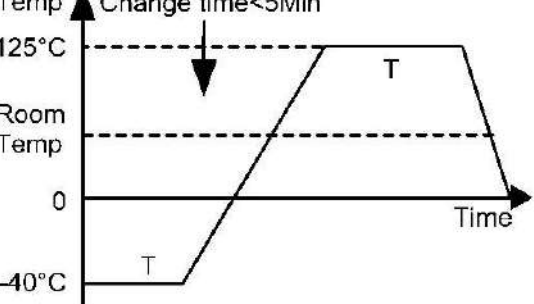
Inductance change shall be within $\pm 5\%$ or temperature rise no more than 20°C against chip surface temperature when the allowable current (which is mentioned in item 5) is applied.

Table 4

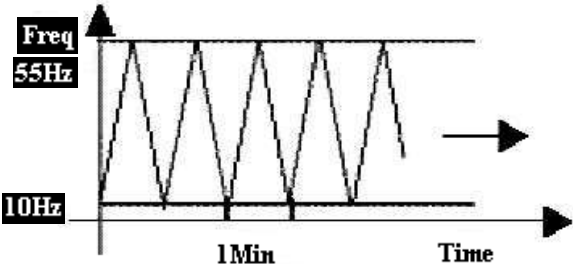
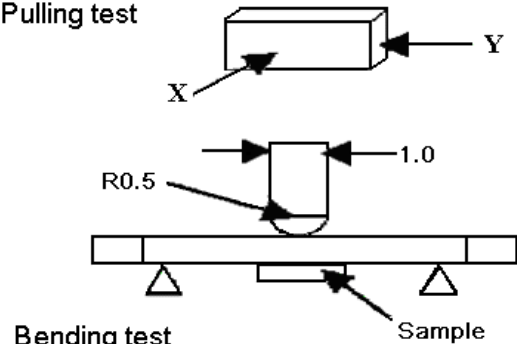
Measuring Equipment	DC Power Supplier, Current Meter, Thermometer
---------------------	---



Reliability and Test Condition

Item	Required Characteristics	Test Method/Condition						
High temperature storage test		Temperature: $85\pm 2^{\circ}\text{C}$ Time : 96 ± 2 hours Tested not less than 1 hours, nor more than 2 hours at room temperature. 						
Low temperature storage test	1. No case deformation or change in appearance. 2. $ \Delta L /L \leq 10\%$ 3. $ \Delta Q /Q \leq 30\%$ 4. $ \Delta \text{DCR} /\text{DCR} \leq 10\%$	Temperature : $-25\pm 2^{\circ}\text{C}$ Time : 96 ± 2 hours Tested not less than 1 hour, nor more than 2 hours at room temperature. 						
Humidity test		1. Dry oven at a temperature of $40\pm 5^{\circ}\text{C}$ for 24 hours. 2. Measurements at the end of this period. 3. Exposure : Temperature: $40\pm 2^{\circ}\text{C}$, Humidity : $93\pm 3\%$ RH Time : 96 ± 2 hours. 4. Tested while the specimens are still in the chamber. 5. Tested not less than 1 hour, nor more than 2 hours at room temperature. 						
Thermal shock test	1. No case deformation or change in appearance. 2. $ \Delta L /L \leq 10\%$ 3. $ \Delta Q /Q \leq 30\%$ 4. $ \Delta \text{DCR} /\text{DCR} \leq 10\%$ For T: <table border="1" data-bbox="327 1830 691 1943"> <thead> <tr> <th>Weight</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>$W \leq 28\text{g}$</td> <td>15 Minute</td> </tr> <tr> <td>$28\text{g} \leq W \leq 136\text{g}$</td> <td>30 Minute</td> </tr> </tbody> </table>	Weight	Time	$W \leq 28\text{g}$	15 Minute	$28\text{g} \leq W \leq 136\text{g}$	30 Minute	First -40°C for T time, last 125°C T time as 1 cycle. Go through 20 cycles. 
Weight	Time							
$W \leq 28\text{g}$	15 Minute							
$28\text{g} \leq W \leq 136\text{g}$	30 Minute							



Item	Required Characteristics	Test Method/Condition												
Solderability test	Terminal area must have 95%min. solder coverage.	Dip pads in flux then dip in solder pot at 245 ±5°C for 5 second. Solder: lead free Flux: rosin flux.												
Heat endurance of reflow soldering		Refer to the next page reflow curve Go through 3 times. The peak temperature: 260±5°C												
Vibration test	1. No case deformation or change in appearance. 2. $ \Delta L /L \leq 10\%$ 3. $ \Delta Q /Q \leq 30\%$ 4. $ \Delta DCR /DCR \leq 10\%$	Apply frequency 10~55Hz. 0.75mm amplitude in each of perpendicular direction for 2 hours. (total 6 hours) 												
Drop test		Packaged & drop down from 1m with 981m/s ² (100G) attitude in 1 angle 1 ridges & 2 surfaces orientations.												
Terminal strength push test	Pulling test: Define: A: sectional area of terminal. <table border="1" data-bbox="309 1255 669 1423"> <thead> <tr> <th>A (mm²)</th> <th>Force (N)</th> <th>Time (sec.)</th> </tr> </thead> <tbody> <tr> <td>A ≤ 8</td> <td>≥ 5</td> <td>30</td> </tr> <tr> <td>8 < A ≤ 20</td> <td>≥ 10</td> <td>10</td> </tr> <tr> <td>A > 20</td> <td>≥ 20</td> <td>10</td> </tr> </tbody> </table> Bending test: Soldering the products on PCB, after the pulling test and bending test, terminal should not pull off.	A (mm ²)	Force (N)	Time (sec.)	A ≤ 8	≥ 5	30	8 < A ≤ 20	≥ 10	10	A > 20	≥ 20	10	Bend the testing PCB at middle point, the deflection shall be 2mm. 
A (mm ²)	Force (N)	Time (sec.)												
A ≤ 8	≥ 5	30												
8 < A ≤ 20	≥ 10	10												
A > 20	≥ 20	10												
Resistance to solvent test	Nocase deformation or change in appearance, or obliteration of marking	To dip parts into IPA solvent for 50.5Min, then drying them at room temp for 5Min., at last, to brushing marking 10 times.												



Recommended Soldering Conditions

Product can be applied to flow and reflow soldering.

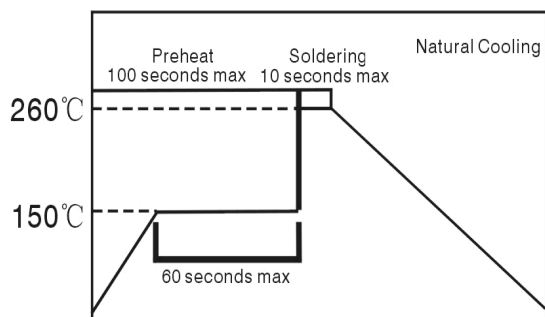
(1) Flux, Solder

Use rosin-based flux. Don't use highly acidic flux with halide content exceeding 0.2wt% (chlorine conversion value).

Use Sn solder.

(2) Flow soldering conditions

- Pre-heating should be in such a way that the temperature difference between solder and product surface is limited to 150°C max. Cooling into solvent after soldering also should be in such a way that temperature difference is limited to 100°C max. Unwrought pre-heating may cause cracks on the product, resulting in the deterioration of products quality.
- Standard soldering profile.



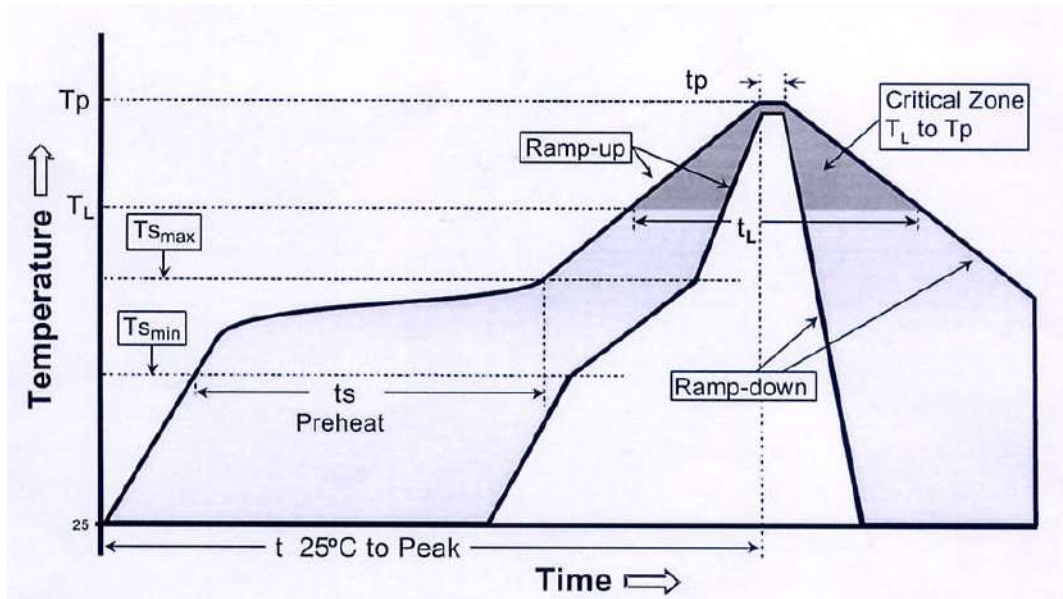
Pre-heating	150°C, 1 minute min
Peak	260°C, 10 seconds max

(3) Reflow soldering conditions

Profile Feature		Lead-Free Assembly
Average Ramp-Up Rate (Ts max. to Tp)		3°C C/second max.
Preheat	- Temperature Min (Ts min.)	150 °C
	- Temperature Max (Ts max.)	200 °C
	- Time (ts min to ts max.)	60-180 seconds
Time maintained above	- Temperature (TL)	217 °C
	- Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp) Peak/Classification Time (Tp)		260 °C 3-4 seconds
Time within 5 °C of actual Peak Temperature (tp)		20-40 seconds
Ramp-Down Rate		6°C/second max.
Time 25 °C to Peak Temperature		8 minutes max.

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

Reflow curve



The method on Re-work with using the iron:

The following conditions must be strictly followed when using a soldering iron

①

Pre-heating	150°C, 1 minute
Tip temperature	280°C max
Soldering iron output	20w max
End of soldering iron	φ1mm max
Soldering time	3 seconds max

- Don't touch the coil core directly with the top of the iron
- In the welding process, the electric iron cannot bump into the enamel-insulated wire, lest components should have evidence of damage.
- The test, link products and so on solder correct and support on both sides the method contrast

wrongly:

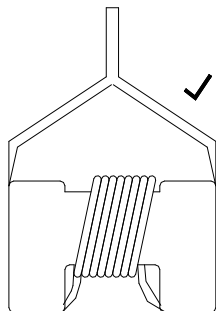


Figure 1 Correct method

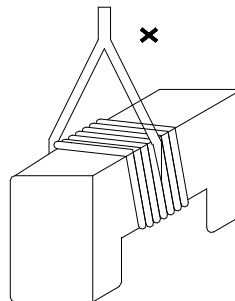


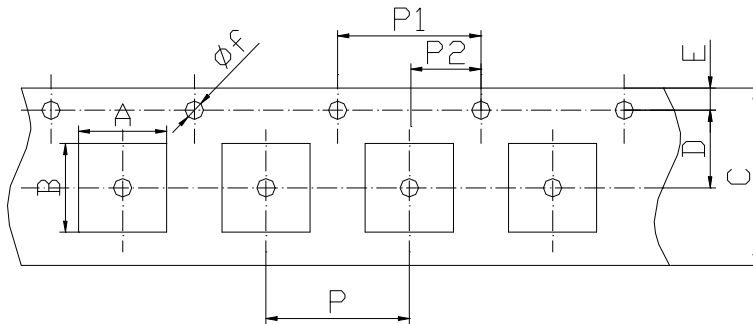
Figure 2 Wrongly method

- Tweezers of fixture should support on both sides of the chip, and the correct support way as shown as Figure 1.
- Tweezers of fixture should not support on enamel-insulated wire of the chip, lest enamel-insulated wire should have evidence of damage, the wrong support way as shown as Figure 2.



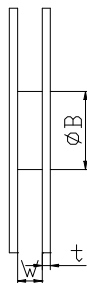
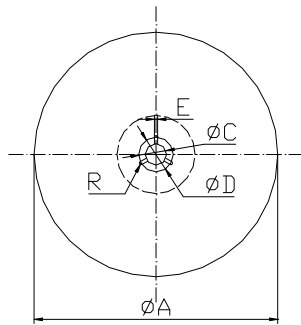
Packaging Information

Dimension of tape (Unit: mm)



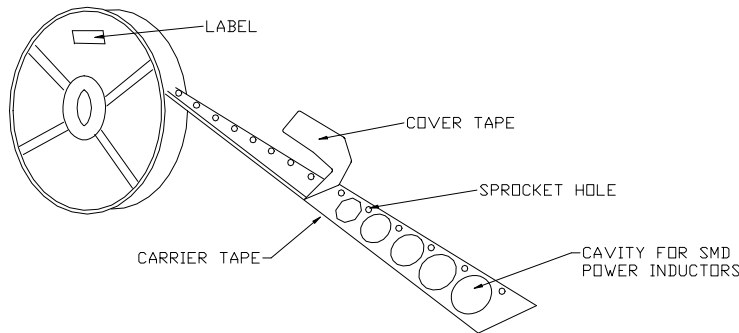
Series	MGTC0805CW
A	2.0
B	2.7
C	8.0
D	3.5
E	1.75
φ f	1.5
P	4.0
P1	4.0
P2	2.0

Dimension of reel (Unit: mm)



A	180
B	60
C	13
D	21
E	2.0
R	R1.0
W	8.4
t	1.0

Taping figure and drawing direction



Packaging quantities: 2,000PCS/Reel.

Peeling strength Of cover tape:

The force tearing off cover tape is 30 to60 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room aim (hpa)	Peel Speed Mm/min
5-35	45-85	860-1060	300

