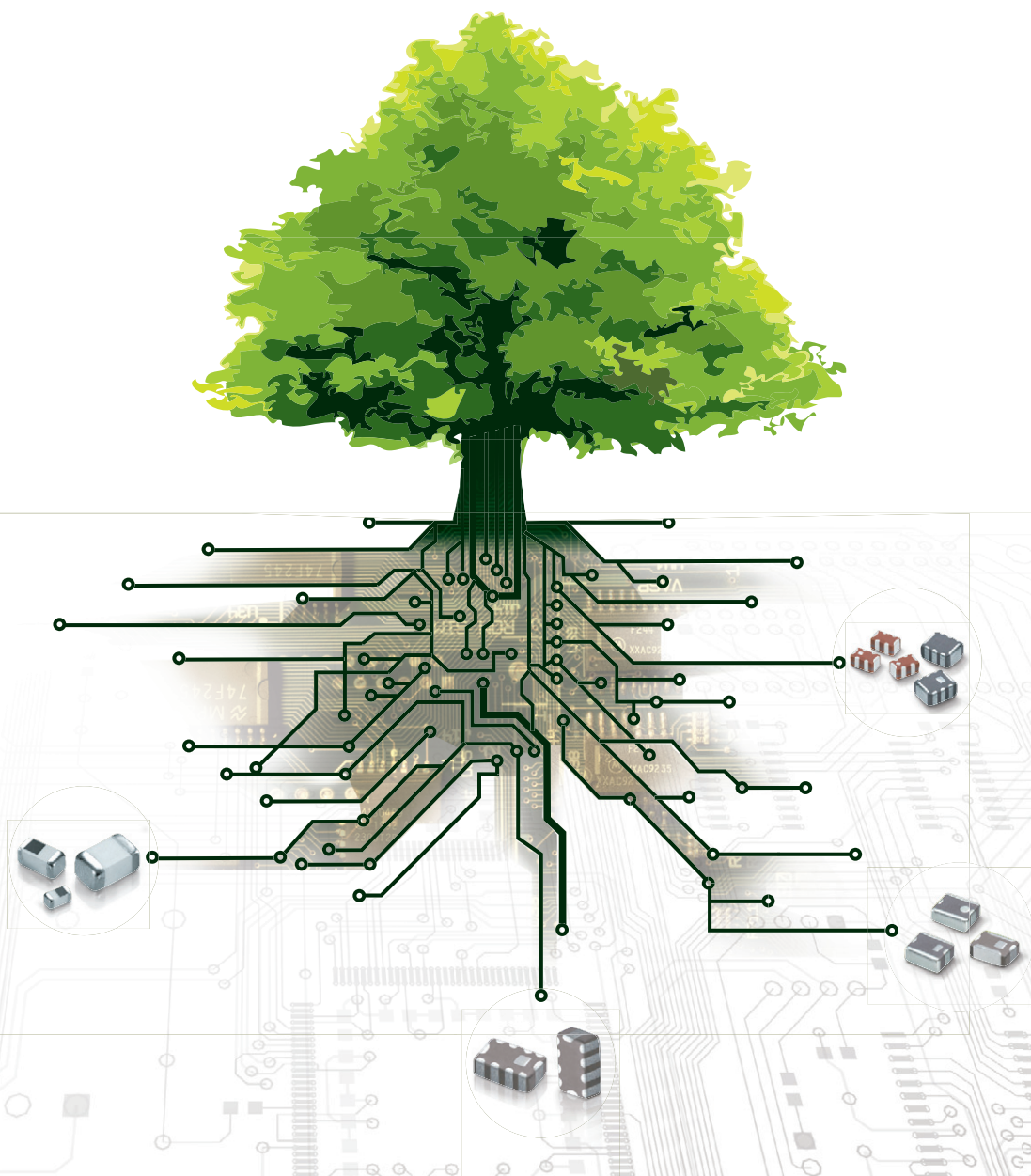


July 2012



MULTILAYER CHIP COMPONENTS



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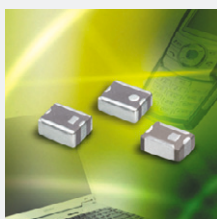
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Bead

Type	Series	Size Code mm (inch)	Impedance Range (Ω) at 100MHz	Effective Frequency Range				
				1MHz	10MHz	100MHz	1GHz	10GHz
General Signal CIB:monolayer CIM:multilayer	CIB10P	1608(0603)	10~33					
	CIB21P	2012(0805)	11~47					
	CIB31P	3216(1206)	26~70					
	CIB32P	3225(1210)	31~60					
	CIB41P	4516(1806)	80~150					
	CIM03U	0603(0201)	80~600					
	CIM05U	1005(0402)	10~1000					
	CIM10U	1608(0603)	80~2000					
	CIM21U	2012(0805)	80~2000					
	CIM31U	3216(1206)	10~600					
High speed signal	CIB05J	1005(0402)	10					
	CIM03J	0603(0201)	120~240					
	CIM05J	1005(0402)	30~1800					
	CIM10J	1608(0603)	30~2500					
	CIM21J	2012(0805)	26~2500					
	CIM31J	3216(1206)	150~1500					
	CIM03N	0603(0201)	30~80					
	CIM05N	1005(0402)	75~220					
	CIM10N	1608(0603)	70~240					
	CIM21N	2012(0805)	70~240					
	CIM10K	1608(0603)	1500~2500					
	CIM21K	2012(0805)	1500~2500					
	CIM05F	1005(0402)	5~220					
	CIM10F	1608(0603)	47~470					
	CIM05H	1005(0402)	80~160					
High Current	CIC05P	1005(0402)	30~120					
	CIC10P	1608(0603)	8~600					
	CIC21P	2012(0805)	11~600					
	CIC31P	3216(1206)	30~600					
	CIC41P	4516(1806)	26~600					
	CIC05J	1005(0402)	60					
	CIC10J	1608(0603)	8~600					
	CIC21J	2012(0805)	60~600					
	CIC31J	3216(1206)	30~600					
	CIC41J	4516(1806)	26~600					
	CIC05Y	1005(0402)	30~120					
Ultra high current	CIS10P	1608(0603)	26~600					
	CIS10J~CIS41J	1608(0603)~4516(1806)	30~120					
	CIS21P~CIS41P	2012(0805)~4516(1806)	30~240					
GHz Band Noise Suppression	CIV05U	1005(0402)	600~1000					
	CIV05J	1005(0402)	1000~1800					

* Note : This catalog has only typical specifications because there is no space for detailed specifications.
Please approve our product specifications or transact the approval sheet for product specifications before ordering.

Inductor

Type	Series	Size Code mm (inch)	Inductance(H) Range						
			1n	10n	100n	1u	10u	100u	1m
General Frequency range	CIL05	1005(0402)				2.2μH			
	CIL10	1608(0603)					0.047~33μH		
	CIL21	2012(0805)					0.047~33μH		
	CIL31	3216(1206)					0.047~33μH		
High Frequency range	CIH03T	0603(0201)			1~56nH				
	CIH03Q	0603(0201)			0.6~100nH				
	CIH03U	0603(0201)			0.6~100nH				
	CIH05T	1005(0402)			1~100nH				
	CIH10T	1608(0603)			1~270nH				
DC-DC converter (Power Inductor)	CIG10F(Low Profile)	1608(0603)				0.47~2.2μH			
	CIG10W(Normal)	1608(0603)				0.27~4.7μH			
	CIG21F(Low Profile)	2012(0805)				0.47~2.2μH			
	CIG21W(Normal)	2012(0805)				1.0~4.7μH			
	CIG21L(Low RDC)	2012(0805)				0.47~4.7μH			
	CIG21C	2012(0805)				2.2~4.7μH			
	CIG2MW	2012(0805)				0.47~4.7μH			
	CIG22L(Low RDC)	2520(1008)				0.47~10μH			
	CIG22H(High Current)	2520(1008)				0.33~4.7μH			
	CIG22E(High Efficiency Type)	2520(1008)				0.33~2.2μH			
	CIG22B	2520(1008)				0.27~4.7μH			
	CIG32W	3225(1210)				1.0μH			
	CIG32H	3225(1210)				2.2μH			

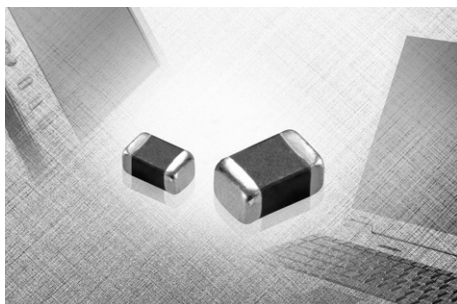
Filters

Type	Series	Size Code mm (inch)
3-Terminal capacitor	EMIC10B	1608(0603)
	EMIC21B	2012(0805)
	EMIC21F	2012(0805)
	EMIC31B	3216(1206)
Diplexer	DX21	2012(0805)
LC Filter	LCB10	1608(0603)
	LCB21	2012(0805)
	LCB22	2520(1008)

* Note : This catalog has only typical specifications because there is no space for detailed specifications.
Please approve our product specifications or transact the approval sheet for product specifications before ordering.

Power Inductor; CIG Series

DC-DC converter Type



General Features

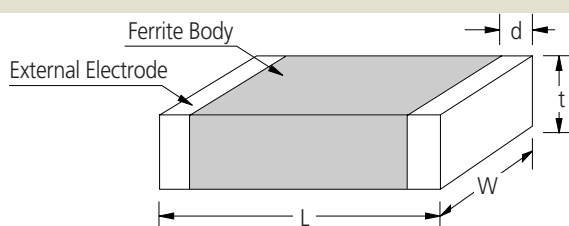
- Low profile (1.0mm max height)
- Magnetically shielded and Low DC resistance
- Lead free termination and internal electrode
- Monolithic structure for high reliability

Application

- Mobile phones, DSC, DVC, PDA etc. for DC- DC Converter

Operating Temp	-40~+125°C (Including self - temperature rise)
Storage Temp (After mounting)	-40~+125°C

Dimensions



SIZE CODE	Dimension (mm)			
	L	W	t	d
CIG10F Series	1.6±0.15	0.8±0.15	0.5 max	0.3±0.2
CIG10W Series	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2
CIG21F Series	2.0±0.10	1.25±0.10	0.5 max	0.5+0.2/-0.3
CIG21W Series	2.0±0.20	1.25±0.20	1.0max	0.5+0.2/-0.3
CIG21L Series	2.0±0.10	1.25±0.10	1.0max	0.5+0.2/-0.3
CIG21C Series	2.0±0.10	1.25±0.10	1.0max	0.5+0.2/-0.3
CIG2MW Series	2.0±0.15	1.6±0.15	1.0 max	0.5±0.2
CIG22L Series	2.5±0.20	2.0±0.20	1.0 max	0.55±0.25
CIG22H Series(MAE)	2.5±0.20	2.0±0.20	1.0 max	0.55±0.25
CIG22H Series(MNE)	2.5±0.20	2.0±0.20	1.2 max	0.55±0.25
CIG22E Series(MAE)	2.5±0.20	2.0±0.20	0.9 max	0.55±0.25
CIG22E Series(MNE)	2.5±0.20	2.0±0.20	1.0 max	0.55±0.25
CIG22B Series(MLE)	2.5±0.15	2.5±0.15	1.0 max	0.60±0.20
CIG22B Series(MAE)	2.5±0.20	2.0±0.20	0.8 max	0.55±0.25
CIG22B Series(MNE)	2.5±0.20	2.0±0.20	1.0max	0.55±0.25
CIG32W Series	3.2±0.20	2.5±0.20	1.0 max	0.50±0.30
CIG32H Serise	3.2±0.15	2.5±0.15	1.2 max	0.50±0.30

Part Numbering

CI **G** **22** **L** **4R7** **M** **N** **E**
 (1) (2) (3) (4) (5) (6) (7) (8)

(1) Chip inductor

(2) Power inductor

(3) Dimensions (10:1608, 21:2012, 2M:2016, 22:2520,32:3225)

(4) Product Series (W: Normal Type, L: Low Rdc Type, F: Low profile Type, C:Choke Type
H: High Current Type, B: High Current & Low Profile Type)

E: High Efficiency Type

(5) Inductance (R47: 0.47uH, 2R2: 2.2uH, 4R7: 4.7uH)

(6) Tolerance (M: ±20%)

(7) Thickness Option (N: Standard, A: Thinner than standard, B: Thicker than standard)

(8) Package Style (C: Paper tape / 7" reel, E: Embossed tape / 7" reel)

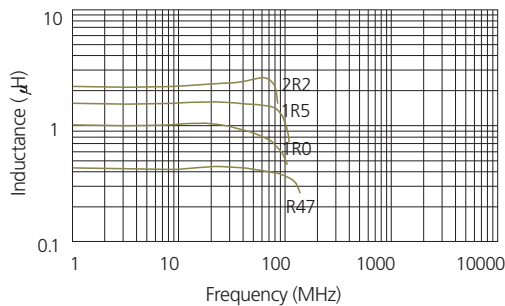
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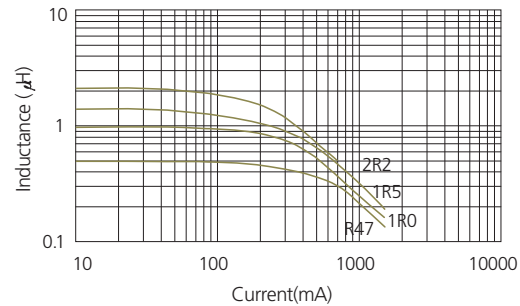
CIG 1608(0603) Type - Low Profile

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG10FR47MNC	0.5max	$0.47 \pm 20 \%$	$0.20 \pm 30 \%$	0.80
CIG10F1R0MNC	0.5max	$1.0 \pm 20 \%$	$0.30 \pm 30 \%$	0.70
CIG10F1R5MNC	0.5max	$1.5 \pm 20 \%$	$0.35 \pm 30 \%$	0.60
CIG10F2R2MNC	0.5max	$2.2 \pm 20 \%$	$0.45 \pm 30 \%$	0.50

INDUCTANCE



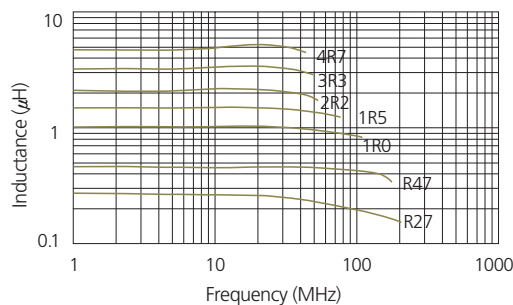
DC BIAS CHARACTERISTIC



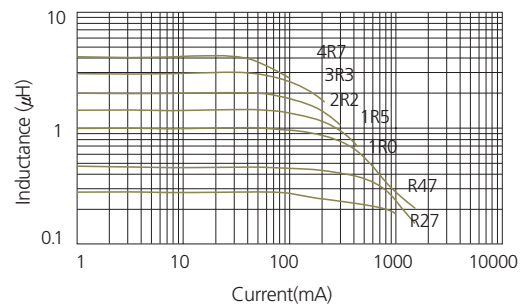
CIG 1608(0603) Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG10WR27MNC	0.8 ± 0.15	$0.27 \pm 25 \%$	$0.12 \pm 25 \%$	1.30
CIG10WR47MNC	0.8 ± 0.15	$0.47 \pm 20 \%$	$0.15 \pm 20 \%$	1.10
CIG10W1R0MNC	0.8 ± 0.15	$1.0 \pm 20 \%$	$0.20 \pm 20 \%$	0.95
CIG10W1R5MNC	0.8 ± 0.15	$1.5 \pm 20 \%$	$0.25 \pm 20 \%$	0.80
CIG10W2R2MNC	0.8 ± 0.15	$2.2 \pm 20 \%$	$0.30 \pm 20 \%$	0.75
CIG10W3R3MNC	0.8 ± 0.15	$3.3 \pm 20 \%$	$0.40 \pm 20 \%$	0.70
CIG10W4R7MNC	0.8 ± 0.15	$4.7 \pm 20 \%$	$0.50 \pm 20 \%$	0.62

INDUCTANCE



DC BIAS CHARACTERISTIC

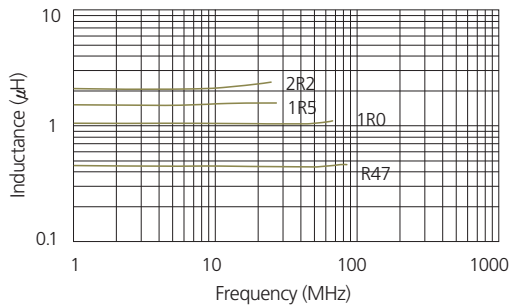


※ Rated Current: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)
 ※ Test equipment: Agilent: E4991A+16092A

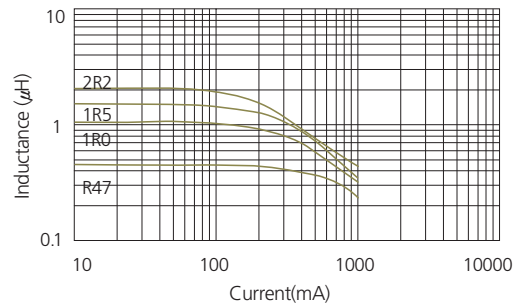
CIG 2012(0805) Type - Low Profile

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG21FR47MNC	0.5max	$0.47 \pm 20\%$	$0.12 \pm 25\%$	1.10
CIG21F1R0MNC	0.5max	$1.0 \pm 20\%$	$0.19 \pm 25\%$	0.80
CIG21F1R5MNC	0.5max	$1.5 \pm 20\%$	$0.25 \pm 25\%$	0.70
CIG21F2R2MNC	0.5max	$2.2 \pm 20\%$	$0.34 \pm 25\%$	0.60

INDUCTANCE(Typ.)



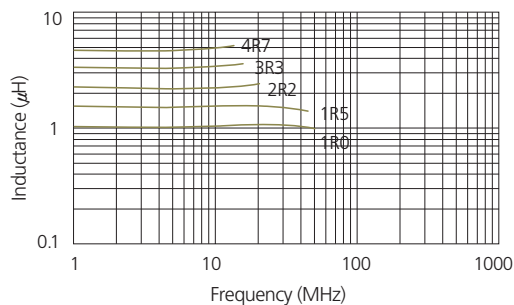
DC BIAS CHARACTERISTIC(Typ.)



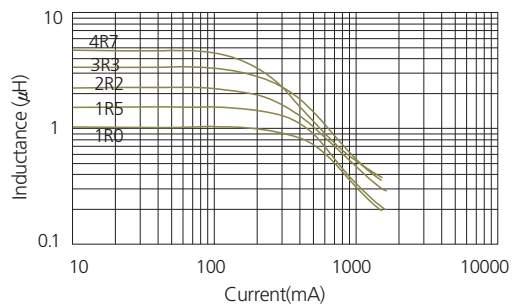
CIG 2012(0805) Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG21W1R0MNE	1.0max	$1.0 \pm 25\%$	$0.133 \pm 20\%$	1.05
CIG21W1R5MNE	1.0max	$1.5 \pm 25\%$	$0.150 \pm 20\%$	0.96
CIG21W2R2MNE	1.0max	$2.2 \pm 20\%$	$0.200 \pm 20\%$	0.81
CIG21W3R3MNE	1.0max	$3.3 \pm 20\%$	$0.250 \pm 20\%$	0.73
CIG21W4R7MNE	1.0max	$4.7 \pm 20\%$	$0.300 \pm 20\%$	0.65

INDUCTANCE(Typ.)



DC BIAS CHARACTERISTIC(Typ.)

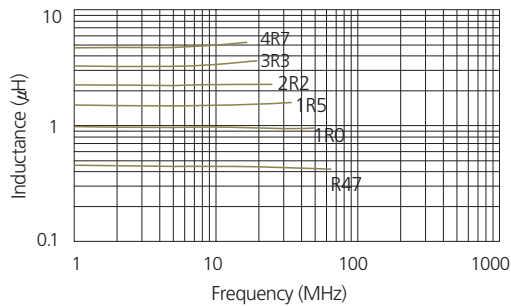


※ Rated Current: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)
 ※ Test equipment: Agilent: E4991A+16092A

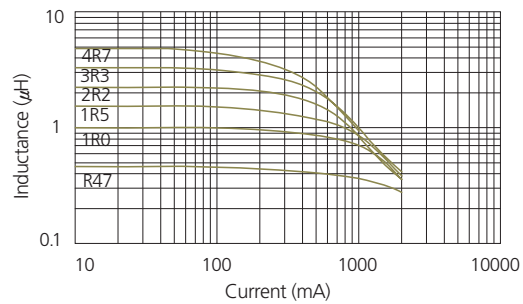
CIG 2012(0805) Type - Low RDC

Part No.	Thickness(mm)	Inductance (μH) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG21LR47MNE	1.0max	$0.47 \pm 20\%$	$0.080 \pm 20\%$	1.30
CIG21L1R0MNE	1.0max	$1.0 \pm 20\%$	$0.110 \pm 20\%$	1.15
CIG21L1R2MNE	1.0max	$1.2 \pm 20\%$	$0.125 \pm 20\%$	1.10
CIG21L1R5MNE	1.0max	$1.5 \pm 20\%$	$0.140 \pm 20\%$	1.05
CIG21L2R2MNE	1.0max	$2.2 \pm 20\%$	$0.160 \pm 20\%$	0.95
CIG21L3R3MNE	1.0max	$3.3 \pm 20\%$	$0.220 \pm 20\%$	0.80
CIG21L4R7MNE	1.0max	$4.7 \pm 20\%$	$0.260 \pm 20\%$	0.75

INDUCTANCE(Typ.)



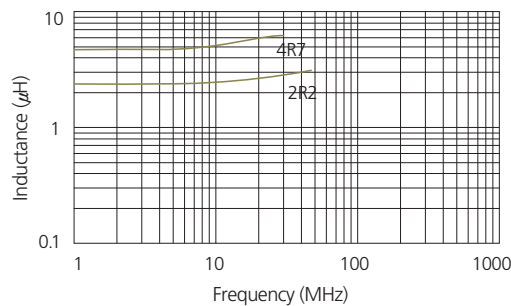
DC BIAS CHARACTERISTIC(Typ.)



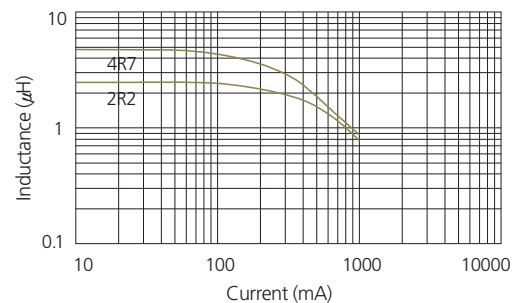
CIG 2012(0805) Type - Choke

Part No.	Thickness(mm)	Inductance (μH) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG21C2R2MNE	1.0max	$2.2 \pm 20\%$	$0.250 \pm 20\%$	0.80
CIG21C4R7MNE	1.0max	$4.7 \pm 20\%$	$0.433 \pm 20\%$	0.58

INDUCTANCE(Typ.)



DC BIAS CHARACTERISTIC(Typ.)

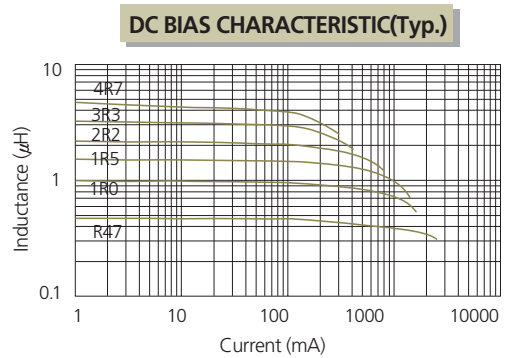
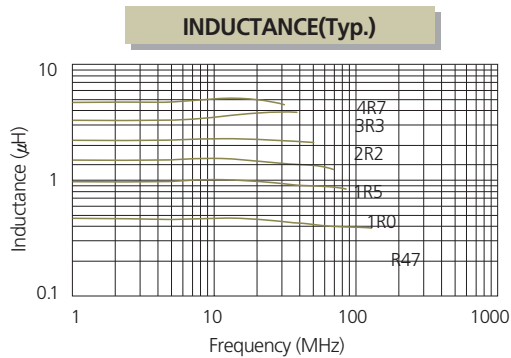


※ Rated Current: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)

※ Test equipment: Agilent: E4991A+16092A

CIG 2016 Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG2MWR47NNE	1.0max	$0.47 \pm 30 \%$	$0.060 \pm 25 \%$	1.6
CIG2MW1R0NNE	1.0max	$1.0 \pm 30 \%$	$0.085 \pm 25 \%$	1.4
CIG2MW1R5NNE	1.0max	$1.5 \pm 30 \%$	$0.11 \pm 25 \%$	1.2
CIG2MW2R2NNE	1.0max	$2.2 \pm 30 \%$	$0.11 \pm 25 \%$	1.2
CIG2MW3R3NNE	1.0max	$3.3 \pm 30 \%$	$0.12 \pm 25 \%$	1.2
CIG2MW4R7NNE	1.0max	$4.7 \pm 30 \%$	$0.14 \pm 25 \%$	1.1

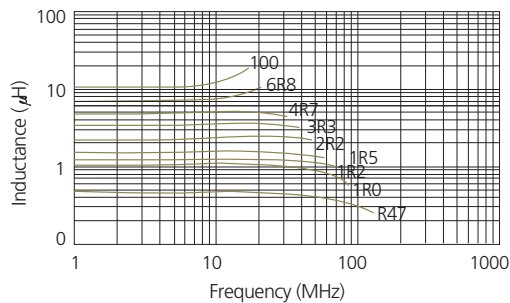


- ※ Rated Current: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)
- ※ Test equipment: Agilent: E4991A+16092A

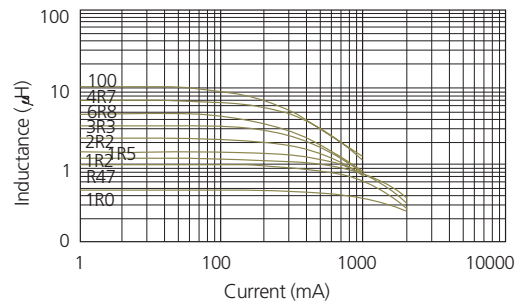
CIG 2520(1008) Type - Low RDC

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A) Max.
CIG22LR47MNE	1.0max	0.47 ± 20 %	0.040 ± 25 %	1.8
CIG22L1R0MNE	1.0max	1.0 ± 20 %	0.060 ± 25 %	1.6
CIG22L1R2MNE	1.0max	1.2 ± 20 %	0.065 ± 25 %	1.5
CIG22L1R5MNE	1.0max	1.5 ± 20 %	0.070 ± 25 %	1.5
CIG22L2R2MNE	1.0max	2.2 ± 20 %	0.080 ± 25 %	1.3
CIG22L3R3MNE	1.0max	3.3 ± 20 %	0.100 ± 25 %	1.2
CIG22L4R7MNE	1.0max	4.7 ± 20 %	0.110 ± 25 %	1.1
CIG22L6R8MNE	1.0max	6.8 ± 20 %	0.203 ± 30 %	0.8
CIG22L100MNE	1.0max	10.0 ± 20 %	0.323 ± 30 %	0.6

INDUCTANCE(Typ.)



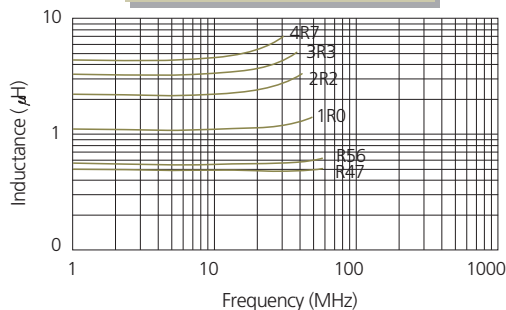
DC BIAS CHARACTERISTIC(Typ.)



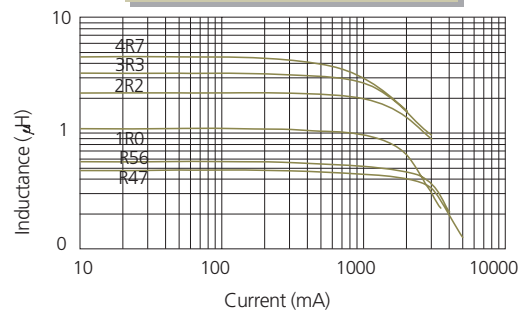
CIG 2520(1008) Type - High Current and Low Profile

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2	
					Typ.	Max.
CIG22BR47MAE	0.8max	0.47 ± 20 %	0.08 ± 25 %	3.0	2.4	1.6
CIG22BR56MAE	0.8max	0.56 ± 20 %	0.10 ± 25 %	2.8	2.05	1.4
CIG22B1R0MAE	0.8max	1.0 ± 20 %	0.11 ± 25 %	1.7	1.9	1.3
CIG22B2R2MAE	0.8max	2.2 ± 20 %	0.19 ± 25 %	0.85	1.65	1.1
CIG22B3R3MAE	0.8max	3.3 ± 20 %	0.22 ± 25 %	0.65	1.5	1.0
CIG22B4R7MAE	0.8max	4.7 ± 20 %	0.28 ± 25 %	0.45	1.3	0.8

INDUCTANCE(Typ.)



DC BIAS CHARACTERISTIC(Typ.)



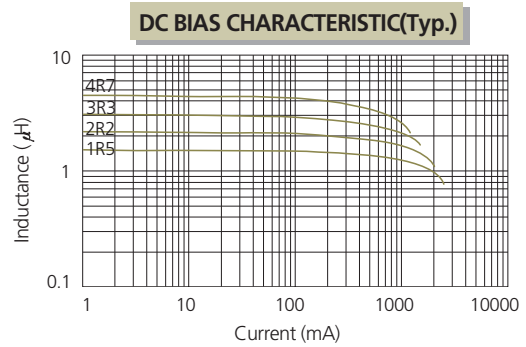
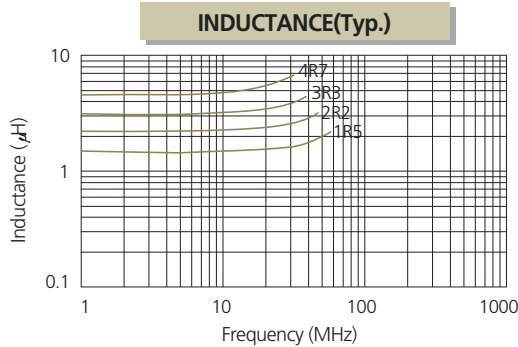
* Rated Current (A)*1: DC current value when Inductance drops to 30% of nominal Inductance value.

* Rated Current (A)*2: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)

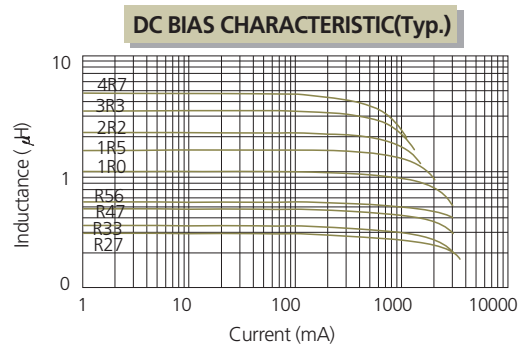
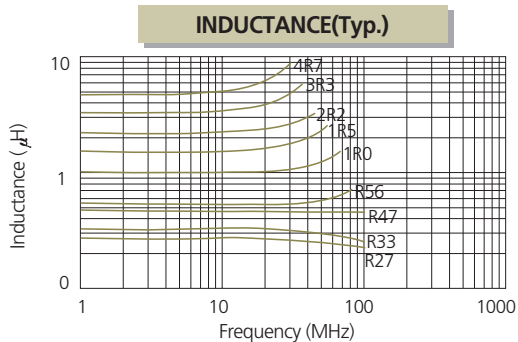
* Test equipment: Agilent: E4991A+16092A

CIG 2520(1008) Type - High Current and Low Profile(1.0t/LGA Type)

Part No.	Thickness(mm)	Inductance (μ H) @3MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2 Max.
CIG22B1R5MLE	1.0max	1.5 ± 20 %	0.15 ± 25 %	1.6	1.0
CIG22B2R2MLE	1.0max	2.2 ± 20 %	0.17 ± 25 %	1.3	0.9
CIG22B3R3MLE	1.0max	3.3 ± 20 %	0.22 ± 25 %	0.9	0.8
CIG22B4R7MLE	1.0max	4.7 ± 20 %	0.26 ± 25 %	0.7	0.7


CIG 2520(1008) Type - High Current(1.0t)

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2 Max.
CIG22BR27MNE	1.0max	0.27 ± 20 %	0.047 ± 30 %	2.80	1.80
CIG22BR33MNE	1.0max	0.33 ± 20 %	0.047 ± 30 %	2.40	1.70
CIG22BR47MNE	1.0max	0.47 ± 20 %	0.0655 ± 30 %	2.40	1.60
CIG22BR56MNE	1.0max	0.56 ± 20 %	0.090 ± 30 %	2.70	1.30
CIG22B1R0MNE	1.0max	1.0 ± 20 %	0.125 ± 20 %	2.00	1.20
CIG22B1R5MNE	1.0max	1.5 ± 20 %	0.148 ± 20 %	1.70	1.15
CIG22B2R2MNE	1.0max	2.2 ± 20 %	0.183 ± 20 %	1.20	1.10
CIG22B3R3MNE	1.0max	3.3 ± 20 %	0.216 ± 20 %	0.96	1.05
CIG22B4R7MNE	1.0max	4.7 ± 20 %	0.250 ± 20 %	0.65	1.0

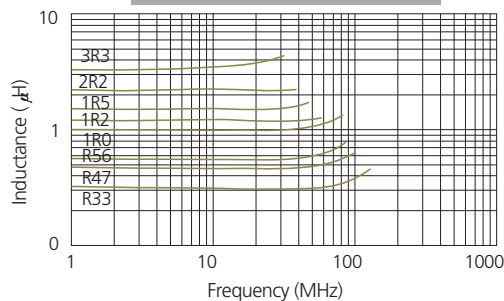


- * Rated Current (A)*1: DC current value when Inductance drops to 30% of nominal Inductance value.
- * Rated Current (A)*2: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)
- * Test equipment: Agilent: E4991A+16092A

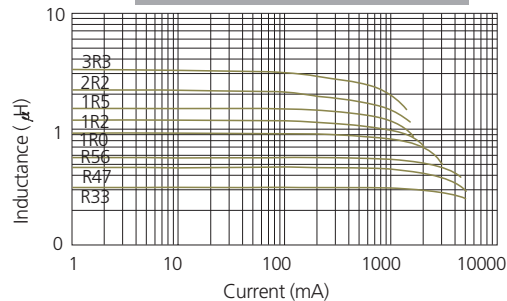
CIG 2520(1008) Type - High Current(1.0t)

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2 Max.
CIG22HR33MAE	1.0max	0.33 ± 20 %	0.044 ± 30 %	4.80	2.2
CIG22HR47MAE	1.0max	0.47 ± 20 %	0.044 ± 30 %	3.80	2.1
CIG22HR56MAE	1.0max	0.56 ± 20 %	0.055 ± 30 %	3.50	2.0
CIG22H1R0MAE	1.0max	1.0 ± 20 %	0.065 ± 20 %	2.00	1.8
CIG22H1R2MAE	1.0max	1.2 ± 20 %	0.065 ± 20 %	1.60	1.7
CIG22H1R5MAE	1.0max	1.5 ± 20 %	0.074 ± 20 %	1.30	1.5
CIG22H2R2MAE	1.0max	2.2 ± 20 %	0.138 ± 20 %	1.10	1.2
CIG22H3R3MAE	1.0max	3.3 ± 20 %	0.138 ± 20 %	0.85	1.1

INDUCTANCE(Typ.)



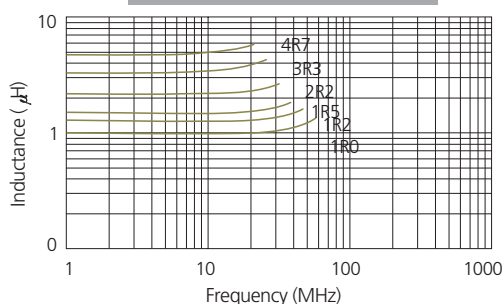
DC BIAS CHARACTERISTIC(Typ.)



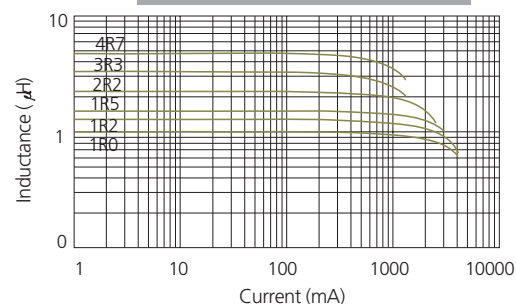
CIG 2520(1008) Type - High Current(1.2t)

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2	
					Typ.	Max.
CIG22H1R0MNE	1.2max	1.0 ± 20 %	0.080 ± 25 %	3.3	2.0	1.5
CIG22H1R2MNE	1.2max	1.2 ± 20 %	0.094 ± 20 %	2.8	1.9	1.5
CIG22H1R5MNE	1.2max	1.5 ± 20 %	0.104 ± 20 %	2.4	1.6	1.5
CIG22H2R2MNE	1.2max	2.2 ± 20 %	0.116 ± 20 %	1.8	1.6	1.2
CIG22H3R3MNE	1.2max	3.3 ± 20 %	0.133 ± 20 %	1.0	1.5	1.0
CIG22H4R7MNE	1.2max	4.7 ± 20 %	0.233 ± 20 %	0.95	1.0	0.8

INDUCTANCE(Typ.)



DC BIAS CHARACTERISTIC(Typ.)



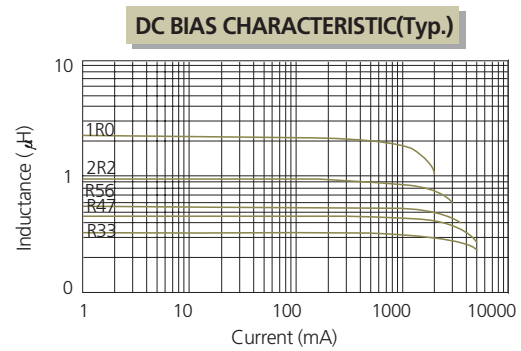
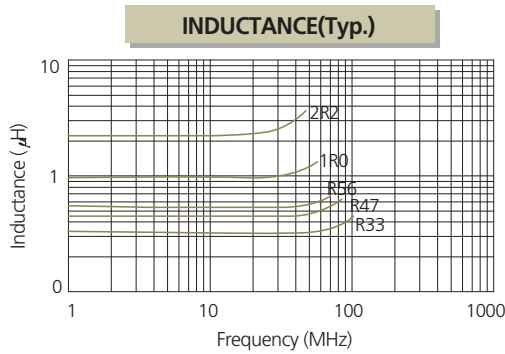
※ Rated Current (A)*1: DC current value when Inductance drops to 30% of nominal Inductance value.

※ Rated Current (A)*2: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)

※ Test equipment: Agilent: E4991A+16092A

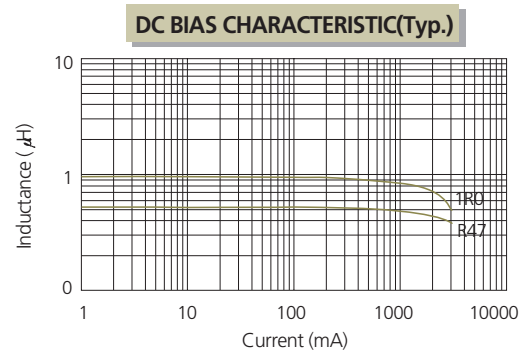
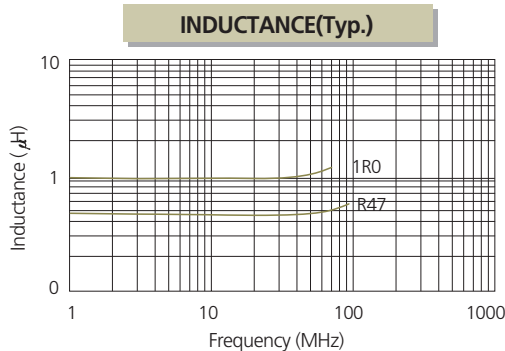
CIG 2520(1008) Type - High Efficiency & Low profile (0.9t max.)

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2 Max.
CIG22ER33MAE	0.8 ± 0.1	$0.33 \pm 20 \%$	$0.060 \pm 20 \%$	4.80	2.0
CIG22ER47MAE	0.8 ± 0.1	$0.47 \pm 20 \%$	$0.060 \pm 25 \%$	4.05	2.0
CIG22ER56MAE	0.8 ± 0.1	$0.56 \pm 20 \%$	$0.075 \pm 20 \%$	4.10	1.9
CIG22E1R0MAE	0.8 ± 0.1	$1.0 \pm 20 \%$	$0.090 \pm 20 \%$	2.30	1.9
CIG22E2R2MAE	0.8 ± 0.1	$2.2 \pm 20 \%$	$0.146 \pm 20 \%$	1.05	1.3



CIG 2520(1008) Type - High Efficiency

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2 Max.
CIG22ER47MNE	0.9 ± 0.1	$0.47 \pm 20 \%$	$0.036 \pm 30 \%$	3.20	3.20
CIG22E1R0MNE	0.9 ± 0.1	$1.0 \pm 20 \%$	$0.048 \pm 30 \%$	2.20	2.30

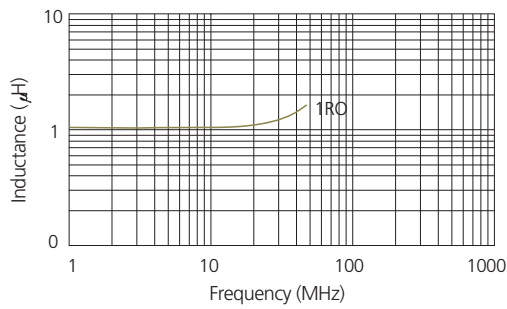


- * Rated Current (A)*1: DC current value when Inductance drops to 30% of nominal Inductance value.
- * Rated Current (A)*2: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)
- * Test equipment: Agilent: E4991A+16092A

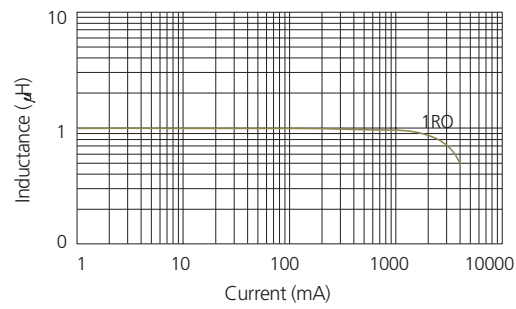
CIG 3225(1210) Type

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2	
					Typ.	Max.
CIG32W1R0MNE	1.0max	$1.0 \pm 20\%$	$0.06 \pm 25\%$	2.7	2.0	1.5

INDUCTANCE(Typ.)



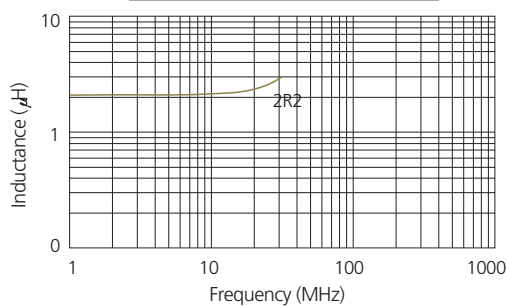
DC BIAS CHARACTERISTIC(Typ.)



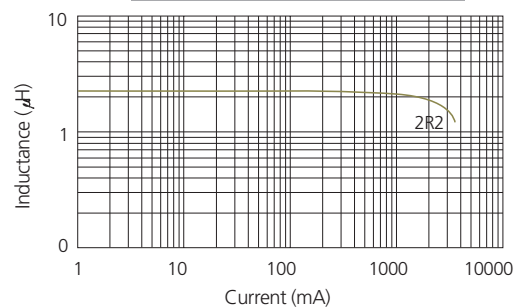
CIG 3225(1210) Type - High Current

Part No.	Thickness(mm)	Inductance (μ H) @1MHz	DC Resistance (Ω)	Rated Current (A)*1 Typ.	Rated Current (A)*2 Max.
CIG32H2R2MNE	1.2max	$2.2 \pm 20\%$	$0.125 \pm 25\%$	2.9	1.6

INDUCTANCE(Typ.)



DC BIAS CHARACTERISTIC(Typ.)



※ Rated Current (A)*1: DC current value when Inductance drops to 30% of nominal Inductance value.

※ Rated Current (A)*2: DC current value when the self-generation of heat rises to 40°C (Reference ambient temperature: 25°C)

※ Test equipment: Agilent: E4991A+16092A

Chip Inductor; CIH Series

High Frequency Type



Feature

- Lowest value of specific resistance, good property of Q and high SRF.
- Possible to use at range above 100MHz
- Monolithic structure for high reliability.

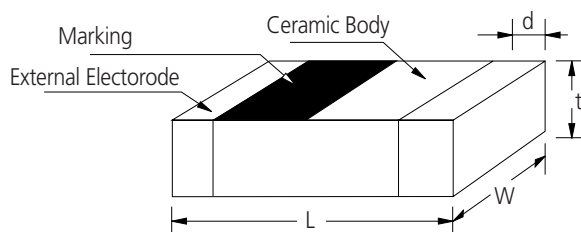
Application

- Mobile communication systems, noise suppression at high frequency and Impedance matching.

CIH Series has dielectric material and 100% Ag as an internal conductor. Therefore, it has high Q and IZl at high frequency. It is possible to use for high frequency over 100MHz.

Operating Temp	-55~+125°C
Storage Temp (After mounting)	-55~+125°C

Dimensions



Unit : mm

SIZE CODE	L	W	t	d
03	0.6 ± 0.03	0.3 ± 0.03	0.3 ± 0.03	0.15 ± 0.05
03*	0.6 ± 0.03	0.3 ± 0.03	0.3 ± 0.03	0.10 ± 0.05
05	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.05	0.25 ± 0.1
10	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2

※ *Mark is "High-Q"

Part Numbering

CI	H	03	T	12N	J	N	C
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

- (1) Chip Inductor
- (2) H: High frequency type
- (3) Dimension
- (4) Material code(T: Normal, Q: High Q, U : High Q and Low RDC)
- (5) Inductance(4N7: 4.7nH, 10N: 10nH, R10: 100nH)
- (6) Tolerance(B: $\pm 0.1nH$, C: $\pm 0.2nH$, S: $\pm 0.3nH$, H: $\pm 3\%$, J: $\pm 5\%$, K: $\pm 10\%$)
- (7) Thickness option(N: Standard, A: Thinner than standard, B: Thicker than standard)
- (8) Packaging(C: paper tape, E: embossed tape)

* Note : This catalog has only typical specifications because there is no space for detailed specifications. Please approve our product specifications or transact the approval sheet for product specifications before ordering.

CIH 0603(0201) Type - Normal

Part No.	Thickness (mm)	Inductance (nH)	Q (Min.) 100 MHz	Q (typical) Frequency					SRF [MHz] min.	DC resistance (Ω)Max.	Rated current (mA) Max.
				500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH 03T 1N0 □	0.3±0.03	1.0±0.2nH,0.3nH	4	17	20	28	30	33	13000	0.14	300
CIH 03T 1N2 □	0.3±0.03	1.2±0.2nH,0.3nH	4	16	20	28	30	33	10000	0.14	250
CIH 03T 1N3 □	0.3±0.03	1.3±0.2nH,0.3nH	4	16	20	28	30	33	10000	0.14	250
CIH 03T 1N5 □	0.3±0.03	1.5±0.2nH,0.3nH	4	15	20	27	29	32	10000	0.18	230
CIH 03T 1N8 □	0.3±0.03	1.8±0.2nH,0.3nH	4	15	20	27	29	31	10000	0.19	200
CIH 03T 2N0 □	0.3±0.03	2.0±0.2nH,0.3nH	4	15	20	26	28	30	8800	0.22	200
CIH 03T 2N2 □	0.3±0.03	2.2±0.2nH,0.3nH	4	15	20	26	28	30	8800	0.22	200
CIH 03T 2N4 □	0.3±0.03	2.4±0.2nH,0.3nH	5	15	20	26	28	30	7500	0.25	200
CIH 03T 2N7 □	0.3±0.03	2.7±0.2nH,0.3nH	5	15	20	26	28	30	7700	0.25	200
CIH 03T 3N0 □	0.3±0.03	3.0±0.2nH,0.3nH	5	15	20	26	28	30	7200	0.27	200
CIH 03T 3N3 □	0.3±0.03	3.3±0.2nH,0.3nH	5	15	20	26	28	30	6700	0.30	200
CIH 03T 3N6 □	0.3±0.03	3.6±0.2nH,0.3nH	5	15	20	27	29	31	6000	0.30	200
CIH 03T 3N9 □	0.3±0.03	3.9±0.2nH,0.3nH	5	15	20	27	29	31	6000	0.30	200
CIH 03T 4N3 □	0.3±0.03	4.3±0.2nH,0.3nH	5	15	19	26	28	30	5600	0.35	200
CIH 03T 4N7 □	0.3±0.03	4.7±0.2nH,0.3nH	5	15	19	26	28	30	5300	0.40	200
CIH 03T 5N6 □	0.3±0.03	5.6±0.2nH,0.3nH	5	15	19	26	27	28	4600	0.40	200
CIH 03T 6N2 □	0.3±0.03	6.2±0.2nH,0.3nH	5	17	18	23	24	25	4100	0.48	150
CIH 03T 6N8 □	0.3±0.03	6.8±5%	5.5	14	18	23	24	25	4100	0.48	150
CIH 03T 7N5 □	0.3±0.03	7.5±5%	5	14	18	22	23	23	3700	0.51	150
CIH 03T 8N2 □	0.3±0.03	8.2±5%	5	14	18	22	23	23	3400	0.55	150
CIH 03T 10N □	0.3±0.03	10.0±5%	5	14	17	22	22	21	3300	0.63	150
CIH 03T 12N □	0.3±0.03	12.0±5%	6	14	17	21	21	19	3000	0.70	150
CIH 03T 15N □	0.3±0.03	15.0±5%	6	13	16	19	18	14	2700	0.80	100
CIH 03T 18N □	0.3±0.03	18.0±5%	6	13	17	16	14	9	2100	0.90	100
CIH 03T 22N □	0.3±0.03	22.0±5%	5	13	15	14	11	5	1800	1.2	100
CIH 03T 24N □	0.3±0.03	24.0±5%	5	13	15	12	9	3	1800	1.6	100
CIH 03T 27N □	0.3±0.03	27.0±5%	4	12	14	10	7	2	1800	1.8	50
CIH 03T 33N □	0.3±0.03	33.0±5%	4	12	14	8	5	1	1700	2.1	50
CIH 03T 39N □	0.3±0.03	39.0±5%	4	12	13	4	1	-	1500	2.4	50
CIH 03T 47N □	0.3±0.03	47.0±5%	4	11	12	2	-	-	1300	2.8	50
CIH 03T 56N □	0.3±0.03	56.0±5%	4	11	11	-	-	-	1100	3.0	50
CIH 03T 68N □	0.3±0.03	68.0±5%	5	13	11	-	-	-	1050	3.0	50
CIH 03T 82N □	0.3±0.03	82.0±5%	5	12	8	-	-	-	900	4.0	50
CIH 03T R10 □	0.3±0.03	100.0±5%	5	11	-	-	-	-	770	4.5	50

※ □: Tolerance (C: ±0.2nH, S: ±0.3nH, H: ±3%, J: ±5%)

※ Measurement equipment & Jig : Agilent E4991A+16196C or Equivalent

CIH 0603(0201) Type - High Q

Part No.	Thickness (mm)	Inductance (nH)	Test Freq. [MHz]	Q (Min.) 500 MHz	Q (typical) Frequency					SRF [MHz] min.	DC resistance (Ω)Max.	Rated current (mA) Max.
					500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH 03Q 0N6 □	0.3+0.03	0.6±0.1nH,0.2nH, 0.3nH	500	13	>24	>31	>53	>56	>64	10000	0.06	600
CIH 03Q 0N7 □	0.3+0.03	0.7±0.1nH,0.2nH, 0.3nH	500	13	>24	>31	>53	>56	>64	10000	0.06	600
CIH 03Q 0N8 □	0.3+0.03	0.8±0.1nH,0.2nH, 0.3nH	500	13	>24	>31	>53	>56	>64	10000	0.07	550
CIH 03Q 0N9 □	0.3+0.03	0.9±0.1nH,0.2nH, 0.3nH	500	13	>24	>31	>53	>56	>64	10000	0.07	550
CIH 03Q 1N0 □	0.3+0.03	1.0±0.1nH,0.2nH, 0.3nH	500	13	24	31	53	56	64	10000	0.09	490
CIH 03Q 1N1 □	0.3+0.03	1.1±0.1nH,0.2nH, 0.3nH	500	13	24	31	53	56	64	10000	0.12	420
CIH 03Q 1N2 □	0.3+0.03	1.2±0.1nH,0.2nH, 0.3nH	500	13	22	27	50	55	59	10000	0.12	420
CIH 03Q 1N3 □	0.3+0.03	1.3±0.1nH,0.2nH, 0.3nH	500	13	22	27	50	55	59	10000	0.12	420
CIH 03Q 1N4 □	0.3+0.03	1.4±0.1nH,0.2nH, 0.3nH	500	13	19	24	39	41	47	10000	0.11	440
CIH 03Q 1N5 □	0.3+0.03	1.5±0.1nH,0.2nH, 0.3nH	500	13	19	24	39	41	46	10000	0.11	440
CIH 03Q 1N6 □	0.3+0.03	1.6±0.1nH,0.2nH, 0.3nH	500	13	19	24	39	41	46	10000	0.13	410
CIH 03Q 1N7 □	0.3+0.03	1.7±0.1nH,0.2nH, 0.3nH	500	13	19	24	39	41	46	10000	0.13	410
CIH 03Q 1N8 □	0.3+0.03	1.8±0.1nH,0.2nH, 0.3nH	500	13	18	24	39	41	46	10000	0.16	370
CIH 03Q 1N9 □	0.3+0.03	1.9±0.1nH,0.2nH, 0.3nH	500	13	18	23	37	41	45	10000	0.20	330
CIH 03Q 2N0 □	0.3+0.03	2.0±0.1nH,0.2nH, 0.3nH	500	13	18	23	37	41	45	10000	0.20	330
CIH 03Q 2N1 □	0.3+0.03	2.1±0.1nH,0.2nH, 0.3nH	500	13	17	23	37	39	44	10000	0.20	330
CIH 03Q 2N2 □	0.3+0.03	2.2±0.1nH,0.2nH, 0.3nH	500	13	17	23	37	39	43	10000	0.20	330
CIH 03Q 2N3 □	0.3+0.03	2.3±0.1nH,0.2nH, 0.3nH	500	13	17	23	36	38	43	10000	0.20	330
CIH 03Q 2N4 □	0.3+0.03	2.4±0.1nH,0.2nH, 0.3nH	500	13	17	22	36	38	42	10000	0.20	330
CIH 03Q 2N5 □	0.3+0.03	2.5±0.1nH,0.2nH, 0.3nH	500	13	17	22	34	35	39	9500	0.22	310
CIH 03Q 2N6 □	0.3+0.03	2.6±0.1nH,0.2nH, 0.3nH	500	13	17	22	33	35	39	9300	0.22	310
CIH 03Q 2N7 □	0.3+0.03	2.7±0.1nH,0.2nH, 0.3nH	500	13	17	22	33	35	39	9100	0.22	310
CIH 03Q 2N8 □	0.3+0.03	2.8±0.1nH,0.2nH, 0.3nH	500	13	17	22	33	35	39	8900	0.22	310
CIH 03Q 2N9 □	0.3+0.03	2.9±0.1nH,0.2nH, 0.3nH	500	13	17	22	33	35	39	8700	0.22	310
CIH 03Q 3N0 □	0.3+0.03	3.0±0.1nH,0.2nH, 0.3nH	500	13	17	22	33	39	43	8600	0.30	270
CIH 03Q 3N1 □	0.3+0.03	3.1±0.1nH,0.2nH, 0.3nH	500	13	17	22	33	39	43	8400	0.30	270
CIH 03Q 3N2 □	0.3+0.03	3.2±0.1nH,0.2nH, 0.3nH	500	13	18	22	33	35	39	8200	0.30	270
CIH 03Q 3N3 □	0.3+0.03	3.3±0.1nH,0.2nH, 0.3nH	500	13	18	22	33	35	39	8100	0.30	270
CIH 03Q 3N4 □	0.3+0.03	3.4±0.1nH,0.2nH, 0.3nH	500	13	16	22	33	35	39	8000	0.30	270
CIH 03Q 3N5 □	0.3+0.03	3.5±0.1nH,0.2nH, 0.3nH	500	13	16	22	33	35	39	7800	0.30	270
CIH 03Q 3N6 □	0.3+0.03	3.6±0.1nH,0.2nH, 0.3nH	500	13	16	22	33	35	39	7700	0.30	270
CIH 03Q 3N7 □	0.3+0.03	3.7±0.1nH,0.2nH, 0.3nH	500	13	16	22	33	35	38	7600	0.30	270
CIH 03Q 3N8 □	0.3+0.03	3.8±0.1nH,0.2nH, 0.3nH	500	13	16	22	33	35	38	7500	0.30	270
CIH 03Q 3N9 □	0.3+0.03	3.9±0.1nH,0.2nH, 0.3nH	500	13	16	22	33	35	38	7300	0.30	270
CIH 03Q 4N3 □	0.3+0.03	4.3±3%,5%, 0.3nH	500	13	16	21	32	34	37	6500	0.38	260
CIH 03Q 4N7 □	0.3+0.03	4.7±3%,5%, 0.3nH	500	13	16	21	32	34	37	6200	0.44	220
CIH 03Q 5N1 □	0.3+0.03	5.1±3%,5%, 0.3nH	500	13	16	21	32	34	37	5900	0.44	220
CIH 03Q 5N6 □	0.3+0.03	5.6±3%,5%, 0.3nH	500	13	16	21	32	34	37	5500	0.47	210
CIH 03Q 6N2 □	0.3+0.03	6.2±3%,5%, 0.3nH	500	13	16	21	32	33	36	5100	0.47	210
CIH 03Q 6N8 □	0.3+0.03	6.8±3%,5%	500	13	16	21	31	32	35	4800	0.55	190
CIH 03Q 7N5 □	0.3+0.03	7.5±3%,5%	500	13	16	20	30	32	34	4600	0.61	190
CIH 03Q 8N2 □	0.3+0.03	8.2±3%,5%	500	13	16	20	30	31	33	4300	0.57	190
CIH 03Q 9N1 □	0.3+0.03	9.1±3%,5%	500	13	16	20	30	30	32	4000	0.73	170
CIH 03Q 10N □	0.3+0.03	10.0±3%,5%	500	13	16	20	28	29	31	3800	0.73	170
CIH 03Q 12N □	0.3+0.03	12.0±3%,5%	500	12	16	20	27	27	27	3300	0.85	160
CIH 03Q 15N □	0.3+0.03	15.0±3%,5%	500	12	15	19	24	24	23	2600	0.89	150
CIH 03Q 18N □	0.3+0.03	18.0±3%,5%	500	11	15	19	23	23	21	2300	1.05	140
CIH 03Q 22N □	0.3+0.03	22.0±3%,5%	500	10	15	19	22	22	19	1900	1.29	130

※□: Tolerance (B: ±0.1nH,C: ±0.2nH,S: ±0.3nH,H: ±3%,J: ±5%)

※ Measurement equipment & Jig

- Impedance Measuring equipment & Jig : Agilent E4991A + 16197A Bottom Electrode SMD Test Fixture or Equivalent

- Resistance Measuring equipment & Jig : Agilent 4338B + 16089A Large Kelvin Clip Leads or Equivalent

CIH 0603(0201) Type - High Q

Part No.	Thickness (mm)	Inductance (nH)	Test Freq. [MHz]	Q (Min.) 500 MHz	Q (typical) Frequency					SRF [MHz] min.	DC resistance (Ω) Max.	Rated current (mA) Max.
					500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH 03Q 4N3 □	0.3±0.03	4.3±3%,5%, 0.3nH	500	13	16	21	32	34	37	6500	0.38	260
CIH 03Q 4N7 □	0.3±0.03	4.7±3%,5%, 0.3nH	500	13	16	21	32	34	37	6200	0.44	220
CIH 03Q 5N1 □	0.3±0.03	5.1±3%,5%, 0.3nH	500	13	16	21	32	34	37	5900	0.44	220
CIH 03Q 5N6 □	0.3±0.03	5.6±3%,5%, 0.3nH	500	13	16	21	32	34	37	5500	0.47	210
CIH 03Q 6N2 □	0.3±0.03	6.2±3%,5%, 0.3nH	500	13	16	21	32	33	36	5100	0.47	210
CIH 03Q 6N8 □	0.3±0.03	6.8±3%,5%	500	13	16	21	31	32	35	4800	0.55	190
CIH 03Q 7N5 □	0.3±0.03	7.5±3%,5%	500	13	16	20	30	32	34	4600	0.61	190
CIH 03Q 8N2 □	0.3±0.03	8.2±3%,5%	500	13	16	20	30	31	33	4300	0.57	190
CIH 03Q 9N1 □	0.3±0.03	9.1±3%,5%	500	13	16	20	30	30	32	4000	0.73	170
CIH 03Q 10N □	0.3±0.03	10.0±3%,5%	500	13	16	20	28	29	31	3800	0.73	170
CIH 03Q 12N □	0.3±0.03	12.0±3%,5%	500	12	16	20	27	27	27	3300	0.85	160
CIH 03Q 15N □	0.3±0.03	15.0±3%,5%	500	12	15	19	24	24	23	2600	0.89	150
CIH 03Q 18N □	0.3±0.03	18.0±3%,5%	500	11	15	19	23	23	21	2300	1.05	140
CIH 03Q 22N □	0.3±0.03	22.0±3%,5%	500	10	15	19	22	22	19	1900	1.29	130
CIH 03Q 27N □	0.3±0.03	27.0±5%	500	14	18	21	18	15	-	2200	1.9	140
CIH 03Q 33N □	0.3±0.03	33.0±5%	300	10	16	17	11	-	-	1800	2	140
CIH 03Q 39N □	0.3±0.03	39.0±5%	300	10	15	17	-	-	-	1800	2.1	130
CIH 03Q 47N □	0.3±0.03	47.0±5%	300	10	16	17	-	-	-	1600	2.6	120
CIH 03Q 56N □	0.3±0.03	56.0±5%	300	10	15	15	-	-	-	1400	3.3	110
CIH 03Q 68N □	0.3±0.03	68.0±5%	300	9	15	15	-	-	-	1200	3.3	110
CIH 03Q 82N □	0.3±0.03	82.0±5%	300	9	15	14	-	-	-	1200	3.8	100
CIH 03Q R10 □	0.3±0.03	100.0±5%	300	9	14	12	-	-	-	900	4.3	90

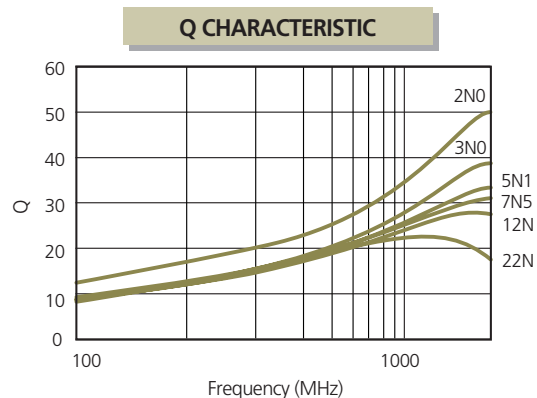
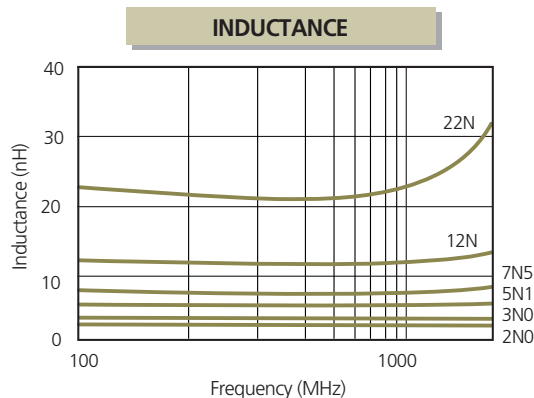
※□: Tolerance (B: ±0.1nH, C: ±0.2nH, S: ±0.3nH, H: ±3%, J: ±5%)

※ Measurement equipment & Jig

- Impedance Measuring equipment & Jig : Agilent E4991A + 16197A Bottom Electrode SMD Test Fixture or Equivalent

- Resistance Measuring equipment & Jig : Agilent 4338B + 16089A Large Kelvin Clip Leads or Equivalent

CIH 0603(0201) Type - High Q



CIH 0603(0201) Type - High Q & Low RDC

Part No.	Thickness (mm)	Inductance (nH)	Test Freq. [MHz]	Q (Min.) 500 MHz	Q (typical) Frequency					SRF [MHz] min.	DC resistance (Ω)Max.	Rated current (mA) Max.
					500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH 03U 0N6 □	0.3±0.03	0.6±0.1nH,0.2nH, 0.3nH	500	15	>24	>31	>53	>56	>64	>10000	0.06	1000
CIH 03U 0N7 □	0.3±0.03	0.7±0.1nH,0.2nH, 0.3nH	500	15	>24	>31	>53	>56	>64	>10000	0.06	1000
CIH 03U 0N8 □	0.3±0.03	0.8±0.1nH,0.2nH, 0.3nH	500	15	>24	>31	>53	>56	>64	>10000	0.06	1000
CIH 03U 0N9 □	0.3±0.03	0.9±0.1nH,0.2nH, 0.3nH	500	15	>24	>31	>53	>56	>64	>10000	0.06	1000
CIH 03U 1N0 □	0.3±0.03	1.0±0.1nH,0.2nH, 0.3nH	500	15	24	31	53	56	64	>10000	0.07	1000
CIH 03U 1N1 □	0.3±0.03	1.1±0.1nH,0.2nH, 0.3nH	500	15	24	31	53	56	64	>10000	0.07	1000
CIH 03U 1N2 □	0.3±0.03	1.2±0.1nH,0.2nH, 0.3nH	500	15	22	27	50	55	59	>10000	0.08	800
CIH 03U 1N3 □	0.3±0.03	1.3±0.1nH,0.2nH, 0.3nH	500	15	22	27	50	55	59	>10000	0.08	800
CIH 03U1N4 □	0.3±0.03	1.4±0.1nH,0.2nH, 0.3nH	500	15	21	24	39	41	47	>10000	0.08	800
CIH 03U 1N5 □	0.3±0.03	1.5±0.1nH,0.2nH, 0.3nH	500	15	21	24	39	41	46	>10000	0.08	800
CIH 03U 1N6 □	0.3±0.03	1.6±0.1nH,0.2nH, 0.3nH	500	14	19	24	39	41	46	>10000	0.10	800
CIH 03U 1N7 □	0.3±0.03	1.7±0.1nH,0.2nH, 0.3nH	500	14	19	24	39	41	46	>10000	0.10	800
CIH 03U1N8 □	0.3±0.03	1.8±0.1nH,0.2nH, 0.3nH	500	14	18	24	39	41	46	>10000	0.10	800
CIH 03U 1N9 □	0.3±0.03	1.9±0.1nH,0.2nH, 0.3nH	500	14	18	24	37	41	45	>10000	0.10	800
CIH 03U 2N0 □	0.3±0.03	2.0±0.1nH,0.2nH, 0.3nH	500	14	19	23	37	41	45	>10000	0.10	800
CIH 03U2N1 □	0.3±0.03	2.1±0.1nH,0.2nH, 0.3nH	500	15	21	24	37	39	44	>10000	0.15	700
CIH 03U 2N2 □	0.3±0.03	2.2±0.1nH,0.2nH, 0.3nH	500	15	21	24	37	39	43	>10000	0.15	700
CIH 03U 2N3 □	0.3±0.03	2.3±0.1nH,0.2nH, 0.3nH	500	15	20	24	36	38	43	>10000	0.18	700
CIH 03U 2N4 □	0.3±0.03	2.4±0.1nH,0.2nH, 0.3nH	500	15	20	24	36	38	42	>10000	0.18	700
CIH 03U 2N5 □	0.3±0.03	2.5±0.1nH,0.2nH, 0.3nH	500	15	20	24	35	35	42	>10000	0.18	600
CIH 03U 2N6 □	0.3±0.03	2.6±0.1nH,0.2nH, 0.3nH	500	14	19	22	35	35	40	>10000	0.20	600
CIH 03U 2N7 □	0.3±0.03	2.7±0.1nH,0.2nH, 0.3nH	500	14	19	22	35	35	40	>10000	0.20	600
CIH 03U 2N8 □	0.3±0.03	2.8±0.1nH,0.2nH, 0.3nH	500	14	19	22	35	35	40	9500	0.20	600
CIH 03U 2N9 □	0.3±0.03	2.9±0.1nH,0.2nH, 0.3nH	500	14	19	22	35	35	40	9500	0.20	600
CIH 03U3N0 □	0.3±0.03	3.0±0.1nH,0.2nH, 0.3nH	500	14	19	22	35	39	43	9500	0.20	500
CIH 03U 3N1 □	0.3±0.03	3.1±0.1nH,0.2nH, 0.3nH	500	14	17	22	33	39	43	9000	0.20	500
CIH 03U 3N2 □	0.3±0.03	3.2±0.1nH,0.2nH, 0.3nH	500	14	18	22	34	35	39	9000	0.20	500
CIH 03U 3N3 □	0.3±0.03	3.3±0.1nH,0.2nH, 0.3nH	500	14	18	22	33	35	39	9000	0.20	500
CIH 03U 3N4 □	0.3±0.03	3.4±0.1nH,0.2nH, 0.3nH	500	14	18	23	34	35	39	8700	0.20	500
CIH 03U 3N5 □	0.3±0.03	3.5±0.1nH,0.2nH, 0.3nH	500	14	18	23	34	35	38	8700	0.20	500
CIH 03U 3N6 □	0.3±0.03	3.6±0.1nH,0.2nH, 0.3nH	500	14	18	23	33	35	39	8500	0.20	450
CIH 03U 3N7 □	0.3±0.03	3.7±0.1nH,0.2nH, 0.3nH	500	14	18	23	34	35	38	8500	0.20	450
CIH 03U 3N8 □	0.3±0.03	3.8±0.1nH,0.2nH, 0.3nH	500	14	18	22	33	35	38	8000	0.25	450
CIH 03U 3N9 □	0.3±0.03	3.9±0.1nH,0.2nH, 0.3nH	500	14	18	22	33	35	38	8000	0.25	450
CIH 03U 4N3 □	0.3±0.03	4.3±3%,5%, 0.3nH	500	14	18	22	32	34	37	7000	0.35	400
CIH 03U 4N7 □	0.3±0.03	4.7±3%,5%, 0.3nH	500	14	18	22	31	32	34	7000	0.35	400
CIH 03U 5N1 □	0.3±0.03	5.1±3%,5%, 0.3nH	500	14	18	22	32	34	37	6000	0.35	400
CIH 03U 5N6 □	0.3±0.03	5.6±3%,5%, 0.3nH	500	14	18	22	32	34	37	6000	0.35	400
CIH 03U 6N2 □	0.3±0.03	6.2±3%,5%, 0.3nH	500	14	18	22	32	33	36	5500	0.40	350
CIH 03U 6N8 □	0.3±0.03	6.8±3%,5%	500	14	18	22	31	32	35	5500	0.40	350
CIH 03U 7N5 □	0.3±0.03	7.5±3%,5%	500	14	18	22	30	32	34	5000	0.50	350
CIH 03U 8N2 □	0.3±0.03	8.2±3%,5%	500	14	18	22	30	31	33	5000	0.50	350
CIH 03U 9N1 □	0.3±0.03	9.1±3%,5%	500	14	18	22	30	31	32	4500	0.60	350

※□: Tolerance (B: ±0.1nH,C: ±0.2nH,S: ±0.3nH,H: ±3%,J: ±5%)

※ Measurement equipment & Jig

- Impedance Measuring equipment & Jig : Agilent E4991A + 16197A Bottom Electrode SMD Test Fixture or Equivalent

- Resistance Measuring equipment & Jig : Agilent 4338B + 16089A Large Kelvin Clip Leads or Equivalent

CIH 0603(0201) Type - High Q & Low RDC

Part No.	Thickness (mm)	Inductance (nH)	Test Freq. [MHz]	Q (Min.) 500 MHz	Q (typical) Frequency					SRF [MHz] min.	DC resistance (Ω)Max.	Rated current (mA) Max.
					500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH 03U 10N □	0.3±0.03	10.0±3%,5%	500	14	18	22	28	29	31	4500	0.60	350
CIH 03U 12N □	0.3±0.03	12.0±3%,5%	500	14	18	22	28	28	27	4000	0.70	180
CIH 03U 15N □	0.3±0.03	15.0±3%,5%	500	14	18	22	27	26	24	3500	0.85	170
CIH 03U 18N □	0.3±0.03	18.0±3%,5%	500	14	18	22	25	24	21	3100	1.00	160
CIH 03U 22N □	0.3±0.03	22.0±3%,5%	500	14	18	21	22	22	19	2300	1.15	150
CIH 03U 27N □	0.3±0.03	27.0±5%	500	14	18	21	18	15	-	2200	1.90	140
CIH 03U 33N □	0.3±0.03	33.0±5%	300	10	16	17	11	-	-	1800	2.00	140
CIH 03U 39N □	0.3±0.03	39.0±5%	300	10	15	17	-	-	-	1800	2.10	130
CIH 03U 47N □	0.3±0.03	47.0±5%	300	10	16	17	-	-	-	1600	2.60	120
CIH 03U 56N □	0.3±0.03	56.0±5%	300	10	15	15	-	-	-	1400	3.30	110
CIH 03U 68N □	0.3±0.03	68.0±5%	300	9	15	15	-	-	-	1200	3.30	110
CIH 03U 82N □	0.3±0.03	82.0±5%	300	9	15	14	-	-	-	1200	3.80	100
CIH 03U R10 □	0.3±0.03	100.0±5%	300	9	14	12	-	-	-	900	4.30	90

※□: Tolerance (B: ±0.1nH, C: ±0.2nH, S: ±0.3nH, H: ±3%, J: ±5%)

※ Measurement equipment & Jig

- Impedance Measuring equipment & Jig : Agilent E4991A + 16197A Bottom Electrode SMD Test Fixture or Equivalent

- Resistance Measuring equipment & Jig : Agilent 4338B + 16089A Large Kelvin Clip Leads or Equivalent

CIH 1005(0402) Type

Part No.	Thickness (mm)	Inductance (nH) @100MHz	Q (Min) 100 MHz	Q (typical.)					SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
				500MHz	800MHz	1.8GHz	2.0GHz	2.4GHz			
CIH 05T 1N0 □	0.5±0.05	1.0±0.2nH,0.3nH	8	23	29	48	50	56	10000	0.12	300
CIH 05T 1N2 □	0.5±0.05	1.2±0.2nH,0.3nH	8	23	29	48	50	56	10000	0.12	300
CIH 05T 1N5 □	0.5±0.05	1.5±0.2nH,0.3nH	8	23	29	47	50	56	6000	0.13	300
CIH 05T 1N8 □	0.5±0.05	1.8±0.2nH,0.3nH	8	20	26	41	43	49	6000	0.14	300
CIH 05T 2N0 □	0.5±0.05	2.0±0.2nH,0.3nH	8	22	27	44	47	52	6000	0.16	300
CIH 05T 2N2 □	0.5±0.05	2.2±0.2nH,0.3nH	8	22	27	44	47	52	6000	0.16	300
CIH 05T 2N4 □	0.5±0.05	2.4±0.2nH,0.3nH	8	22	27	44	47	52	6000	0.16	300
CIH 05T 2N7 □	0.5±0.05	2.7±0.2nH,0.3nH	8	22	27	43	45	50	6000	0.17	300
CIH 05T 3N0 □	0.5±0.05	3.0±0.2nH,0.3nH	8	24	30	46	48	53	6000	0.19	300
CIH 05T 3N3 □	0.5±0.05	3.3±0.2nH,0.3nH	8	24	30	46	48	53	6000	0.19	300
CIH 05T 3N6 □	0.5±0.05	3.6±0.2nH,0.3nH	8	24	30	46	48	53	6000	0.19	300
CIH 05T 3N9 □	0.5±0.05	3.9±0.2nH,0.3nH	8	22	28	43	45	50	4000	0.22	300
CIH 05T 4N3 □	0.5±0.05	4.3±0.2nH,0.3nH	8	22	28	43	45	50	4000	0.24	300
CIH 05T 4N7 □	0.5±0.05	4.7±0.2nH,0.3nH	8	23	30	45	47	50	4000	0.24	300
CIH 05T 5N1 □	0.5±0.05	5.1±0.2nH,0.3nH	8	22	28	42	43	45	4000	0.27	300
CIH 05T 5N6 □	0.5±0.05	5.6±0.2nH,0.3nH	8	22	28	42	43	45	4000	0.27	300
CIH 05T 6N2 □	0.5±0.05	6.2±0.2nH,0.3nH	8	22	28	40	41	41	3900	0.32	300
CIH 05T 6N8 □	0.5±0.05	6.8±5%, 10%	8	22	28	40	41	41	3900	0.32	300
CIH 05T 7N5 □	0.5±0.05	7.5±5%, 10%	8	22	28	38	38	36	3600	0.37	300
CIH 05T 8N2 □	0.5±0.05	8.2±5%, 10%	8	22	28	38	38	36	3600	0.37	300
CIH 05T 9N1 □	0.5±0.05	9.1±5%, 10%	8	22	28	37	36	31	3200	0.42	300
CIH 05T 10N □	0.5±0.05	10.0±5%, 10%	8	22	28	37	36	31	3200	0.42	300
CIH 05T 12N □	0.5±0.05	12.0±5%, 10%	8	22	28	33	31	23	2700	0.50	300
CIH 05T 15N □	0.5±0.05	15.0±5%, 10%	8	22	28	29	26	17	2300	0.55	300
CIH 05T 18N □	0.5±0.05	18.0±5%, 10%	8	23	28	26	22	11	2100	0.65	250
CIH 05T 22N □	0.5±0.05	22.0±5%, 10%	8	22	27	21	14	2	1900	0.80	250
CIH 05T 27N □	0.5±0.05	27.0±5%, 10%	8	20	23	10	3	-	1600	0.90	250
CIH 05T 33N □	0.5±0.05	33.0±5%, 10%	8	20	23	3	-	-	1300	1.00	250
CIH 05T 39N □	0.5±0.05	39.0±5%, 10%	8	20	21	-	-	-	1200	1.20	200
CIH 05T 47N □	0.5±0.05	47.0±5%, 10%	8	19	20	-	-	-	1000	1.30	200
CIH 05T 56N □	0.5±0.05	56.0±5%, 10%	8	19	18	-	-	-	750	1.40	180
CIH 05T 68N □	0.5±0.05	68.0±5%, 10%	8	17	15	-	-	-	750	1.40	180
CIH 05T 82N □	0.5±0.05	82.0±5%, 10%	8	16	11	-	-	-	600	1.60	150
CIH 05T R10 □	0.5±0.05	100.0±5%, 10%	8	15	9	-	-	-	600	1.60	130

※ □ : Tolerance (C: ±0.2nH, S: ±0.3nH, J: ±5%, K ±10%)

※ Measurement equipment & Jig : Agilent E4991A+16192A or Equivalent

CIH 1608(0603) Type

Part No.	Thickness (mm)	Inductance (nH) @100MHz	Q (typical)		SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
			100MHz	800MHz			
CIH 10T 1N0 □	0.8±0.15	1.0±0.3nH	8	20	10000	0.05	800
CIH 10T 1N2 □	0.8±0.15	1.2±0.3nH	8	20	10000	0.05	800
CIH 10T 1N5 □	0.8±0.15	1.5±0.3nH	8	20	6000	0.10	800
CIH 10T 1N8 □	0.8±0.15	1.8±0.3nH	8	20	6000	0.10	800
CIH 10T 2N2 □	0.8±0.15	2.2±0.3nH	8	20	6000	0.10	800
CIH 10T 2N7 □	0.8±0.15	2.7±0.3nH	10	25	6000	0.10	800
CIH 10T 3N3 □	0.8±0.15	3.3±0.3nH, 10%	10	25	6000	0.12	800
CIH 10T 3N9 □	0.8±0.15	3.9±0.3nH, 10%	10	27	6000	0.14	800
CIH 10T 4N7 □	0.8±0.15	4.7±0.3nH, 10%	10	27	4000	0.16	800
CIH 10T 5N6 □	0.8±0.15	5.6±0.3nH, 10%	10	27	4000	0.18	800
CIH 10T 6N8 □	0.8±0.15	6.8±10%, 5%	10	27	4000	0.22	700
CIH 10T 8N2 □	0.8±0.15	8.2±10%, 5%	10	26	3500	0.24	700
CIH 10T 10N □	0.8±0.15	10.0±10%, 5%	12	26	3400	0.26	600
CIH 10T 12N □	0.8±0.15	12.0±10%, 5%	12	24	2600	0.28	600
CIH 10T 15N □	0.8±0.15	15.0±10%, 5%	12	24	2300	0.32	500
CIH 10T 18N □	0.8±0.15	18.0±10%, 5%	12	24	2000	0.35	500
CIH 10T 22N □	0.8±0.15	22.0±10%, 5%	12	25	1600	0.40	500
CIH 10T 27N □	0.8±0.15	27.0±10%, 5%	12	25	1400	0.45	500
CIH 10T 33N □	0.8±0.15	33.0±10%, 5%	12	24	1200	0.55	500
CIH 10T 39N □	0.8±0.15	39.0±10%, 5%	12	20	1100	0.60	400
CIH 10T 47N □	0.8±0.15	47.0±10%, 5%	12	20	900	0.77	400
CIH 10T 56N □	0.8±0.15	56.0±10%, 5%	12	20	900	0.75	400
CIH 10T 68N □	0.8±0.15	68.0±10%, 5%	12	⁽¹⁾ 20	700	0.85	350
CIH 10T 82N □	0.8±0.15	82.0±10%, 5%	12	⁽¹⁾ 20	600	0.95	350
CIH 10T R10 □	0.8±0.15	100.0±10%, 5%	12	⁽¹⁾ 20	600	1.00	350
CIH 10T R12 □	0.8±0.15	120.0±10%, 5%	⁽²⁾ 8	-	500	1.20	300
CIH 10T R15 □	0.8±0.15	150.0±10%, 5%	⁽²⁾ 8	-	500	1.20	250
CIH 10T R18 □	0.8±0.15	180.0±10%, 5%	⁽²⁾ 8	-	400	1.30	250
CIH 10T R22 □	0.8±0.15	220.0±10%, 5%	⁽²⁾ 8	-	400	1.50	200
CIH 10T R27 □	0.8±0.15	270.0±10%, 5%	⁽²⁾ 8	-	400	1.50	200

* □: Tolerance (S: ±0.3nH, J: ±5%, K: ±10%)

* (1) 500MHz, (2) 50MHz

* Measurement equipment & Jig : HP4291B +16092A or Equivalent

Chip Inductor; CIL Series

General Type



Feature

- Magnetic shielding eliminates crosstalk, thus permitting higher mounting density.
- Excellent solderability and high thermal resistance for either flow or reflow soldering.
- Monolithic structure for high reliability.

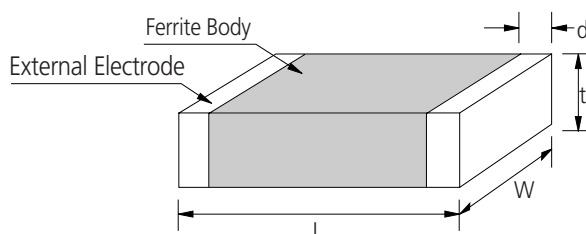
Application

- Resonance circuits, PLL circuits, Noise suppression, etc.

As it has ferrite body and 100 % Ag internal conductor, the CIL series Inductors have excellent Q characteristics and free of cross talk.

Operating Temp	-40~+85°C
Storage Temp (After mounting)	-40~+85°C

Dimensions



Unit : mm

SIZE CODE	L	W	T	d
05	1.0 ± 0.05	0.5 ± 0.05	0.5 ± 0.05	0.25 ± 0.1
10	1.6 ± 0.15	0.8 ± 0.15	0.8 ± 0.15	0.3 ± 0.2
21	2.0 ± 0.2	1.25 ± 0.2	0.85 ± 0.2 1.25 ± 0.2	$0.5 + 0.2, -0.3$
31	3.2 ± 0.2	1.6 ± 0.2	0.6 ± 0.2 1.1 ± 0.2	$0.5 + 0.2, -0.3$

Part Numbering

CI **L** **10** **Y** **5R6** **K** **N** **C**
 (1) (2) (3) (4) (5) (6) (7) (8)

- (1) Chip Inductor
- (2) L:General Type
- (3) Dimension
- (4) Material code(N, J, Y, S)
- (5) Inductance(R10: 0.1μH, 5R6: 5.6μH, 100: 10μH)
- (6) Tolerance(J: ±5%, K: ±10%, M: ±20%)
- (7) Thickness option(N: Standard, A: Thinner than standard, B: Thicker than standard)
- (8) Packaging(C: paper tape, E: embossed tape)

* Note : This catalog has only typical specifications because there is no space for detailed specifications. Please approve our product specifications or transact the approval sheet for product specifications before ordering.

CIL 1005(0402) Type

Part No.	Thickness (mm)	Inductance (μ H)	Q Min.	L, Q test frequency (MHz)	SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
CIL 05J 2R2 □	0.5 $\pm$ 0.05	2.2 $\pm$ 20%, 10%	20	10	40	1.70	10

CIL 1608(0603) Type - Tight Tolerance

Part No.	Thickness (mm)	Inductance (μ H)	Q Min.	L, Q test frequency (MHz)	SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
CIL10NR10 □	0.80 $\pm$ 0.15	0.10 $\pm$ 5%	15	25	450	0.35	200
CIL10NR12 □	0.80 $\pm$ 0.15	0.12 $\pm$ 5%	15	25	400	0.40	200
CIL10NR15 □	0.80 $\pm$ 0.15	0.15 $\pm$ 5%	15	25	350	0.45	200
CIL10NR18 □	0.80 $\pm$ 0.15	0.18 $\pm$ 5%	15	25	320	0.50	150
CIL10NR22 □	0.80 $\pm$ 0.15	0.22 $\pm$ 5%	15	25	290	0.55	150
CIL10NR27 □	0.80 $\pm$ 0.15	0.27 $\pm$ 5%	15	25	260	0.60	150
CIL10NR33 □	0.80 $\pm$ 0.15	0.33 $\pm$ 5%	15	25	230	0.75	100
CIL10NR39 □	0.80 $\pm$ 0.15	0.39 $\pm$ 5%	15	25	210	0.85	100
CIL10NR47 □	0.80 $\pm$ 0.15	0.47 $\pm$ 5%	15	25	190	0.95	100
CIL10NR56 □	0.80 $\pm$ 0.15	0.56 $\pm$ 5%	15	25	170	1.05	100
CIL10NR68 □	0.80 $\pm$ 0.15	0.68 $\pm$ 5%	15	25	150	1.25	70
CIL10NR82 □	0.80 $\pm$ 0.15	0.82 $\pm$ 5%	15	25	130	1.40	70

※ □: Tolerance (J: $\pm$ 5%, K: $\pm$ 10%, M: $\pm$ 20%)

CIL 1608(0603) Type - Normal

Part No.	Thickness (mm)	Inductance (μ H)	Q Min.	L, Q test frequency (MHz)	SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
CIL 10N 47N □	0.80±0.15	0.047±20%, 10%	10	50	260	0.30	50
CIL 10N 56N □	0.80±0.15	0.056±20%, 10%	10	50	260	0.30	50
CIL 10N 68N □	0.80±0.15	0.068±20%, 10%	10	50	250	0.30	50
CIL 10N 82N □	0.80±0.15	0.082±20%, 10%	10	50	245	0.30	50
CIL 10N R10 □	0.80±0.15	0.10±20%, 10%	15	25	240	0.50	50
CIL 10N R12 □	0.80±0.15	0.12±20%, 10%	15	25	205	0.50	50
CIL 10N R15 □	0.80±0.15	0.15±20%, 10%	15	25	180	0.60	50
CIL 10N R18 □	0.80±0.15	0.18±20%, 10%	15	25	165	0.60	50
CIL 10N R22 □	0.80±0.15	0.22±20%, 10%	15	25	150	0.80	50
CIL 10N R27 □	0.80±0.15	0.27±20%, 10%	15	25	136	0.80	50
CIL 10N R33 □	0.80±0.15	0.33±20%, 10%	15	25	125	0.85	35
CIL 10N R39 □	0.80±0.15	0.39±20%, 10%	15	25	110	1.00	35
CIL 10N R47 □	0.80±0.15	0.47±20%, 10%	15	25	105	1.35	35
CIL 10N R56 □	0.80±0.15	0.56±20%, 10%	15	25	95	1.55	35
CIL 10N R68 □	0.80±0.15	0.68±20%, 10%	15	25	80	1.70	35
CIL 10N R82 □	0.80±0.15	0.82±20%, 10%	15	25	75	2.10	35
CIL 10J 1R0 □	0.80±0.15	1.0±20%, 10%	35	10	70	0.60	25
CIL 10J 1R2 □	0.80±0.15	1.2±20%, 10%	35	10	60	0.80	25
CIL 10J 1R5 □	0.80±0.15	1.5±20%, 10%	35	10	55	0.80	25
CIL 10J 1R8 □	0.80±0.15	1.8±20%, 10%	35	10	50	0.95	25
CIL 10J 2R2 □	0.80±0.15	2.2±20%, 10%	35	10	45	1.15	15
CIL 10J 2R7 □	0.80±0.15	2.7±20%, 10%	35	10	40	1.35	15
CIL 10J 3R3 □	0.80±0.15	3.3±20%, 10%	35	10	38	1.55	15
CIL 10J 3R9 □	0.80±0.15	3.9±20%, 10%	35	10	36	1.70	15
CIL 10J 4R7 □	0.80±0.15	4.7±20%, 10%	35	10	33	2.10	15
CIL 10Y 5R6 □	0.80±0.15	5.6±20%, 10%	35	4	22	1.55	5
CIL 10Y 6R8 □	0.80±0.15	6.8±20%, 10%	35	4	20	1.70	5
CIL 10Y 8R2 □	0.80±0.15	8.2±20%, 10%	35	4	18	2.10	5
CIL 10Y 100 □	0.80±0.15	10.0±20%, 10%	35	2	17	2.55	5
CIL 10Y 120 □	0.80±0.15	12.0±20%, 10%	35	2	15	2.75	5
CIL 10S 150 □	0.80±0.15	15.0±20%, 10%	20	1	14	1.70	1
CIL 10S 180 □	0.80±0.15	18.0±20%, 10%	20	1	13	1.85	1
CIL 10S 220 □	0.80±0.15	22.0±20%, 10%	20	1	11	2.10	1
CIL 10S 270 □	0.80±0.15	27.0±20%, 10%	20	1	10	2.75	1
CIL 10S 330 □	0.80±0.15	33.0±20%, 10%	20	0.4	9	2.95	1

※ □: Tolerance (K:±10%,M:±20%)

※ Test equipment: Agilent 4291B+16193A

CIL 2012(0805) Type

Part No.	Thickness (mm)	Inductance (μ H)	Q Min.	L, Q test frequency (MHz)	SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
CIL 21N 47N □	0.85 $\pm$ 0.2	0.047 $\pm$ 20%, 10%	15	50	320	0.20	300
CIL 21N 68N □	0.85 $\pm$ 0.2	0.068 $\pm$ 20%, 10%	15	50	280	0.20	300
CIL 21N 82N □	0.85 $\pm$ 0.2	0.082 $\pm$ 20%, 10%	15	50	255	0.20	300
CIL 21N R10 □	0.85 $\pm$ 0.2	0.10 $\pm$ 20%, 10%	20	25	235	0.20	250
CIL 21N R12 □	0.85 $\pm$ 0.2	0.12 $\pm$ 20%, 10%	20	25	220	0.20	250
CIL 21N R15 □	0.85 $\pm$ 0.2	0.15 $\pm$ 20%, 10%	20	25	200	0.25	250
CIL 21N R18 □	0.85 $\pm$ 0.2	0.18 $\pm$ 20%, 10%	20	25	185	0.25	250
CIL 21N R22 □	0.85 $\pm$ 0.2	0.22 $\pm$ 20%, 10%	20	25	170	0.30	250
CIL 21N R27 □	0.85 $\pm$ 0.2	0.27 $\pm$ 20%, 10%	20	25	150	0.30	250
CIL 21N R33 □	0.85 $\pm$ 0.2	0.33 $\pm$ 20%, 10%	20	25	145	0.30	250
CIL 21N R39 □	0.85 $\pm$ 0.2	0.39 $\pm$ 20%, 10%	25	25	135	0.40	200
CIL 21N R47 □	1.25 $\pm$ 0.2	0.47 $\pm$ 20%, 10%	25	25	125	0.40	200
CIL 21N R56 □	1.25 $\pm$ 0.2	0.56 $\pm$ 20%, 10%	25	25	115	0.50	150
CIL 21N R68 □	1.25 $\pm$ 0.2	0.68 $\pm$ 20%, 10%	25	25	105	0.50	150
CIL 21N R82 □	1.25 $\pm$ 0.2	0.82 $\pm$ 20%, 10%	25	25	100	0.60	150
CIL 21J 1R0 □	0.85 $\pm$ 0.2	1.0 $\pm$ 20%, 10%	45	10	75	0.30	50
CIL 21J 1R2 □	0.85 $\pm$ 0.2	1.2 $\pm$ 20%, 10%	45	10	65	0.40	50
CIL 21J 1R5 □	0.85 $\pm$ 0.2	1.5 $\pm$ 20%, 10%	45	10	60	0.40	50
CIL 21J 1R8 □	0.85 $\pm$ 0.2	1.8 $\pm$ 20%, 10%	45	10	55	0.40	50
CIL 21J 2R2 □	0.85 $\pm$ 0.2	2.2 $\pm$ 20%, 10%	45	10	50	0.50	30
CIL 21J 2R7 □	1.25 $\pm$ 0.2	2.7 $\pm$ 20%, 10%	45	10	45	0.60	30
CIL 21J 3R3 □	1.25 $\pm$ 0.2	3.3 $\pm$ 20%, 10%	45	10	41	0.60	30
CIL 21J 3R9 □	1.25 $\pm$ 0.2	3.9 $\pm$ 20%, 10%	45	10	38	0.80	30
CIL 21J 4R7 □	1.25 $\pm$ 0.2	4.7 $\pm$ 20%, 10%	45	10	35	0.90	30
CIL 21Y 5R6 □	1.25 $\pm$ 0.2	5.6 $\pm$ 20%, 10%	50	4	32	0.50	25
CIL 21Y 6R8 □	1.25 $\pm$ 0.2	6.8 $\pm$ 20%, 10%	50	4	29	0.60	15
CIL 21Y 8R2 □	1.25 $\pm$ 0.2	8.2 $\pm$ 20%, 10%	50	4	26	0.70	15
CIL 21Y 100 □	1.25 $\pm$ 0.2	10.0 $\pm$ 20%, 10%	50	2	24	0.80	15
CIL 21Y 120 □	1.25 $\pm$ 0.2	12.0 $\pm$ 20%, 10%	50	2	22	0.90	15
CIL 21S 150 □	1.25 $\pm$ 0.2	15.0 $\pm$ 20%, 10%	30	1	19	0.80	5
CIL 21S 180 □	1.25 $\pm$ 0.2	18.0 $\pm$ 20%, 10%	30	1	18	0.90	5
CIL 21S 220 □	1.25 $\pm$ 0.2	22.0 $\pm$ 20%, 10%	30	1	16	1.10	5
CIL 21S 270 □	1.25 $\pm$ 0.2	27.0 $\pm$ 20%, 10%	30	1	14	1.15	5
CIL 21S 330 □	1.25 $\pm$ 0.2	33.0 $\pm$ 20%, 10%	30	0.4	13	1.25	5

* □ : Tolerance (K: $\pm$ 10%, M: $\pm$ 20%)

* Test equipment : Agilent 4291B+16193A

CIL 3216(1206) Type

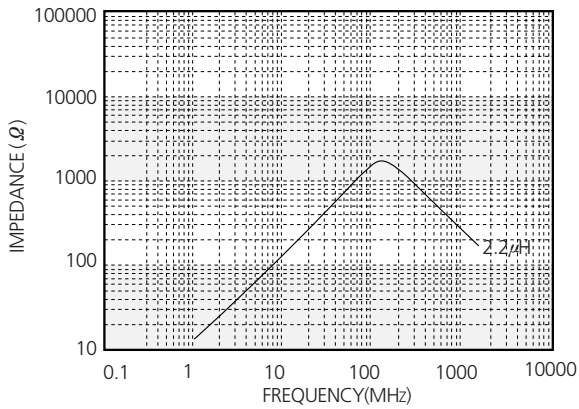
Part No.	Thickness (mm)	Inductance (μ H)	Q Min.	L, Q test frequency (MHz)	SRF (MHz) Min.	DC resistance (Ω) Max.	Rated current (mA) Max.
CIL 31N 47N □	0.6 $\pm$ 0.2	0.047 $\pm$ 20%, 10%	20	50	320	0.15	300
CIL 31N 68N □	0.6 $\pm$ 0.2	0.068 $\pm$ 20%, 10%	20	50	280	0.25	300
CIL 31N R10 □	0.6 $\pm$ 0.2	0.10 $\pm$ 20%, 10%	20	25	235	0.25	250
CIL 31N R12 □	0.6 $\pm$ 0.2	0.12 $\pm$ 20%, 10%	20	25	220	0.30	250
CIL 31N R15 □	0.6 $\pm$ 0.2	0.15 $\pm$ 20%, 10%	20	25	200	0.30	250
CIL 31N R18 □	0.6 $\pm$ 0.2	0.18 $\pm$ 20%, 10%	20	25	185	0.40	250
CIL 31N R22 □	0.6 $\pm$ 0.2	0.22 $\pm$ 20%, 10%	20	25	170	0.40	250
CIL 31N R27 □	0.6 $\pm$ 0.2	0.27 $\pm$ 20%, 10%	20	25	150	0.50	250
CIL 31N R33 □	0.6 $\pm$ 0.2	0.33 $\pm$ 20%, 10%	20	25	145	0.60	250
CIL 31N R39 □	1.1 $\pm$ 0.2	0.39 $\pm$ 20%, 10%	25	25	135	0.50	200
CIL 31N R47 □	1.1 $\pm$ 0.2	0.47 $\pm$ 20%, 10%	25	25	125	0.60	200
CIL 31N R56 □	1.1 $\pm$ 0.2	0.56 $\pm$ 20%, 10%	25	25	115	0.70	150
CIL 31N R68 □	1.1 $\pm$ 0.2	0.68 $\pm$ 20%, 10%	25	25	105	0.80	150
CIL 31N R82 □	1.1 $\pm$ 0.2	0.82 $\pm$ 20%, 10%	25	25	100	0.90	150
CIL 31J 1R0 □	0.6 $\pm$ 0.2	1.0 $\pm$ 20%, 10%	45	10	75	0.40	100
CIL 31J 1R2 □	0.6 $\pm$ 0.2	1.2 $\pm$ 20%, 10%	45	10	65	0.50	100
CIL 31J 1R5 □	1.1 $\pm$ 0.2	1.5 $\pm$ 20%, 10%	45	10	60	0.50	50
CIL 31J 1R8 □	1.1 $\pm$ 0.2	1.8 $\pm$ 20%, 10%	45	10	55	0.50	50
CIL 31J 2R2 □	1.1 $\pm$ 0.2	2.2 $\pm$ 20%, 10%	45	10	50	0.60	50
CIL 31J 2R7 □	1.1 $\pm$ 0.2	2.7 $\pm$ 20%, 10%	45	10	45	0.60	50
CIL 31J 3R3 □	1.1 $\pm$ 0.2	3.3 $\pm$ 20%, 10%	45	10	41	0.70	50
CIL 31J 3R9 □	1.1 $\pm$ 0.2	3.9 $\pm$ 20%, 10%	45	10	38	0.80	50
CIL 31J 4R7 □	1.1 $\pm$ 0.2	4.7 $\pm$ 20%, 10%	45	10	35	0.90	50
CIL 31Y 5R6 □	1.1 $\pm$ 0.2	5.6 $\pm$ 20%, 10%	50	4	32	0.70	25
CIL 31Y 6R8 □	1.1 $\pm$ 0.2	6.8 $\pm$ 20%, 10%	50	4	29	0.80	25
CIL 31Y 8R2 □	1.1 $\pm$ 0.2	8.2 $\pm$ 20%, 10%	50	4	26	0.90	25
CIL 31Y 100 □	1.1 $\pm$ 0.2	10.0 $\pm$ 20%, 10%	50	2	24	1.00	25
CIL 31Y 120 □	1.1 $\pm$ 0.2	12.0 $\pm$ 20%, 10%	50	2	22	1.05	15
CIL 31S 150 □	1.1 $\pm$ 0.2	15.0 $\pm$ 20%, 10%	35	1	19	0.70	5
CIL 31S 180 □	1.1 $\pm$ 0.2	18.0 $\pm$ 20%, 10%	35	1	18	0.70	5
CIL 31S 220 □	1.1 $\pm$ 0.2	22.0 $\pm$ 20%, 10%	35	1	16	0.90	5
CIL 31S 270 □	1.1 $\pm$ 0.2	27.0 $\pm$ 20%, 10%	35	1	14	0.90	5
CIL 31S 330 □	1.1 $\pm$ 0.2	33.0 $\pm$ 20%, 10%	35	0.4	13	1.05	5

* □: Tolerance (K: $\pm$ 10%, M: $\pm$ 20%)

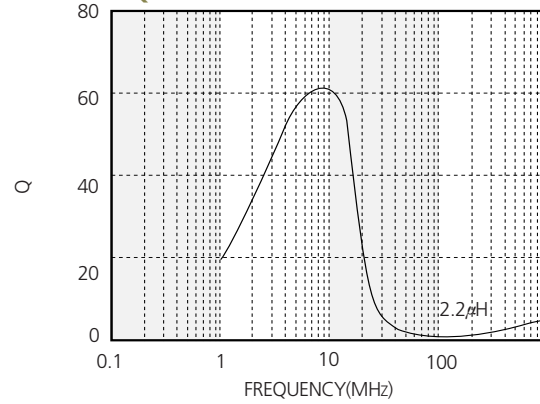
* Test equipment: Agilent 4291B+16193A

CIL 1005(0402) Type

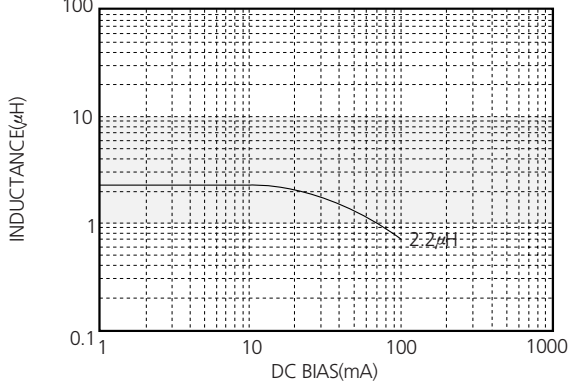
■ IMPEDANCE CHARACTERISTICS



■ Q CHARACTERISTICS

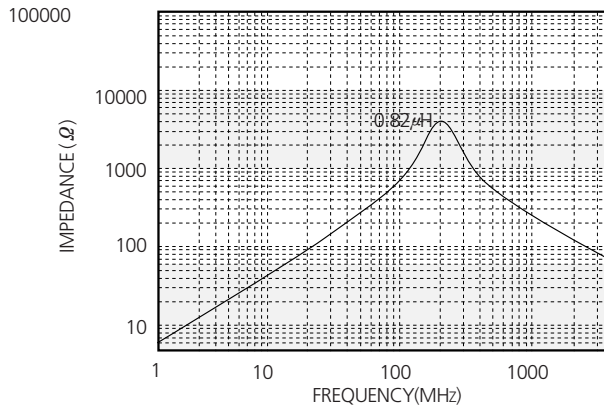


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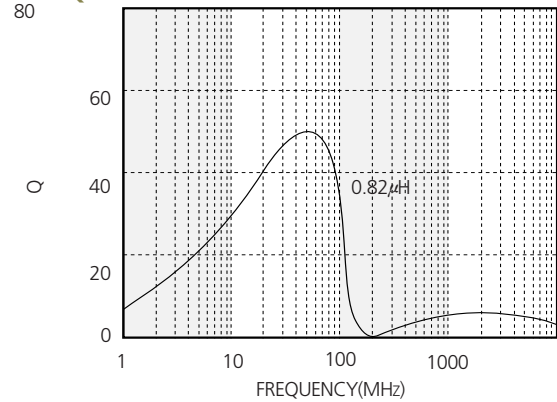


CIL 1608(0603) Type - Tight Tolerance

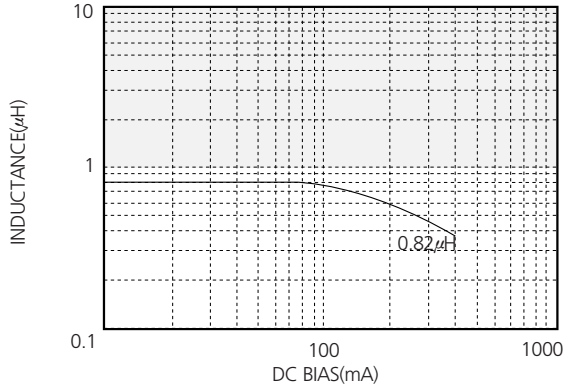
■IMPEDANCE CHARACTERISTICS



■Q CHARACTERISTICS

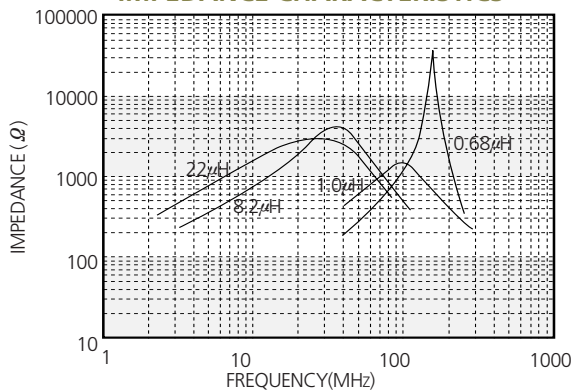


■DC BIAS CHARACTERISTICS

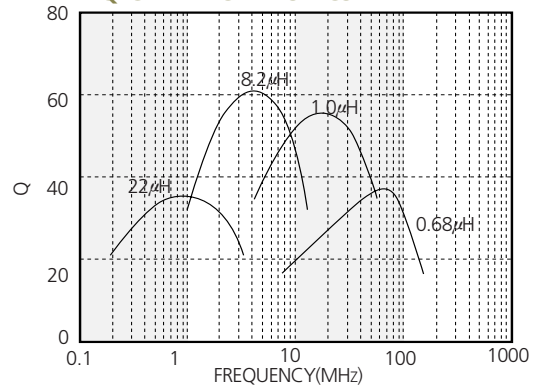


CIL 1608(0603) Type - Normal

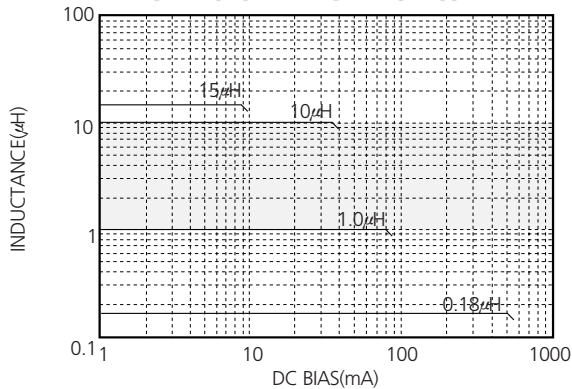
■IMPEDANCE CHARACTERISTICS



■Q CHARACTERISTICS

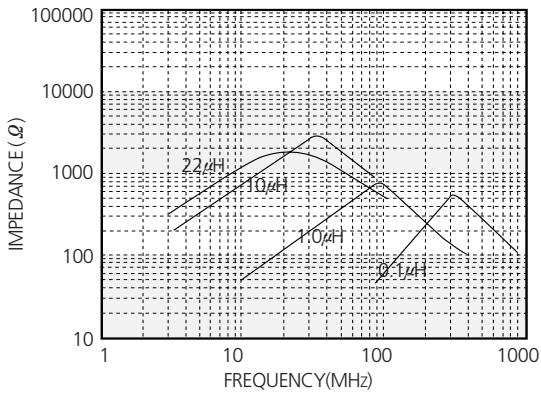


■DC BIAS CHARACTERISTICS

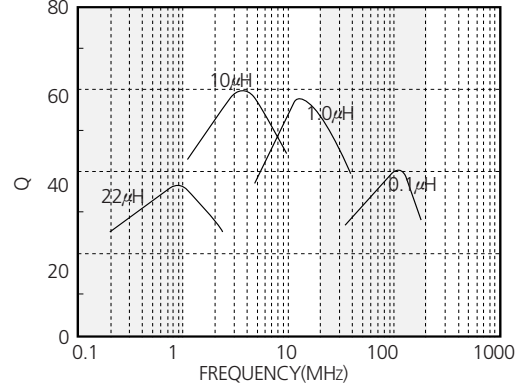


CIL 2012(0805) Type

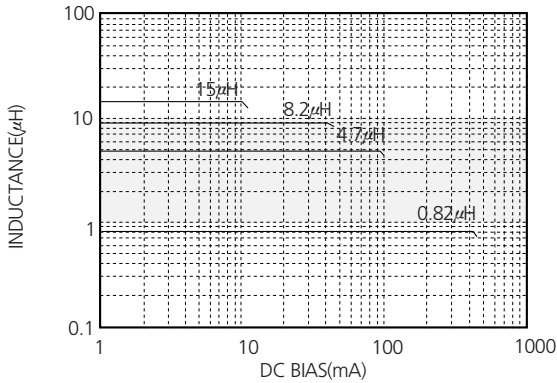
■IMPEDANCE CHARACTERISTICS



■Q CHARACTERISTICS

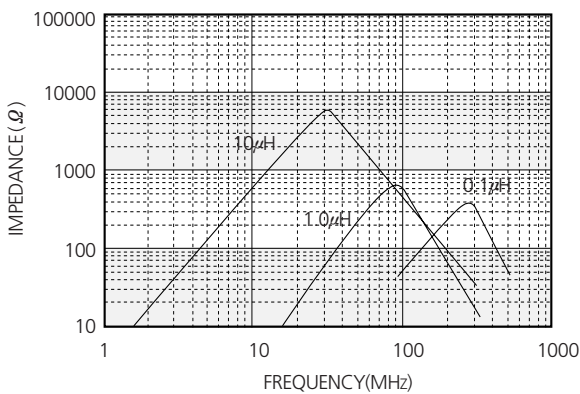


■DC BIAS CHARACTERISTICS

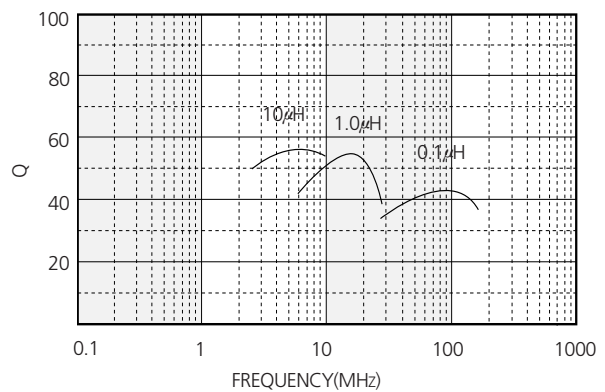


CIL 3216(1206) Type

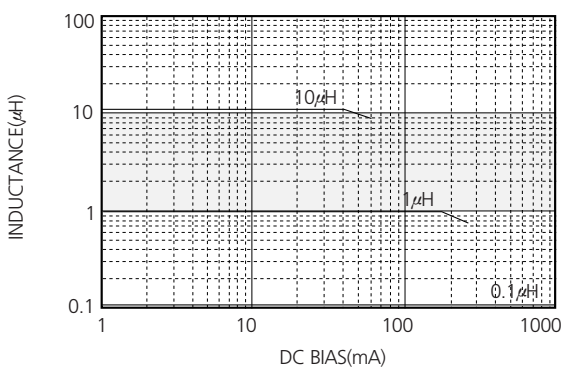
■IMPEDANCE CHARACTERISTICS



■Q CHARACTERISTICS

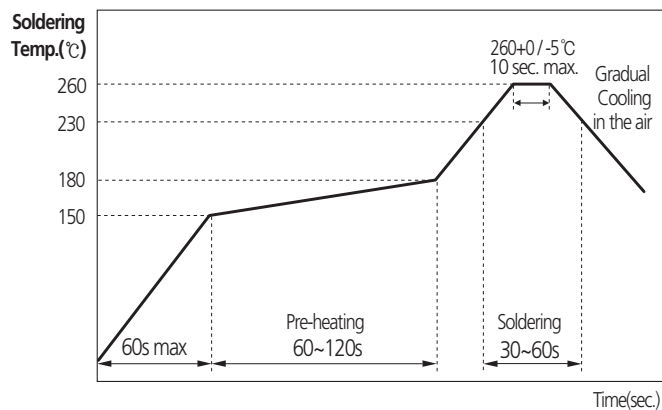


■DC BIAS CHARACTERISTICS



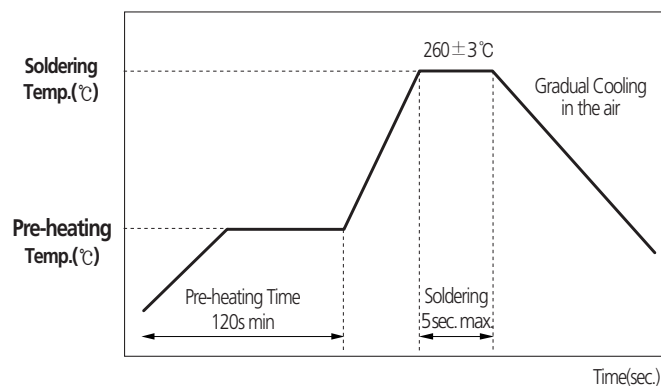
Soldering Condition

REFLOW SOLDERING



Soldering Temp. (°C)	Pre-heating Time (sec)	Soldering Time (sec)
260+0/-5°C	60~120	30~60

FLOW SOLDERING



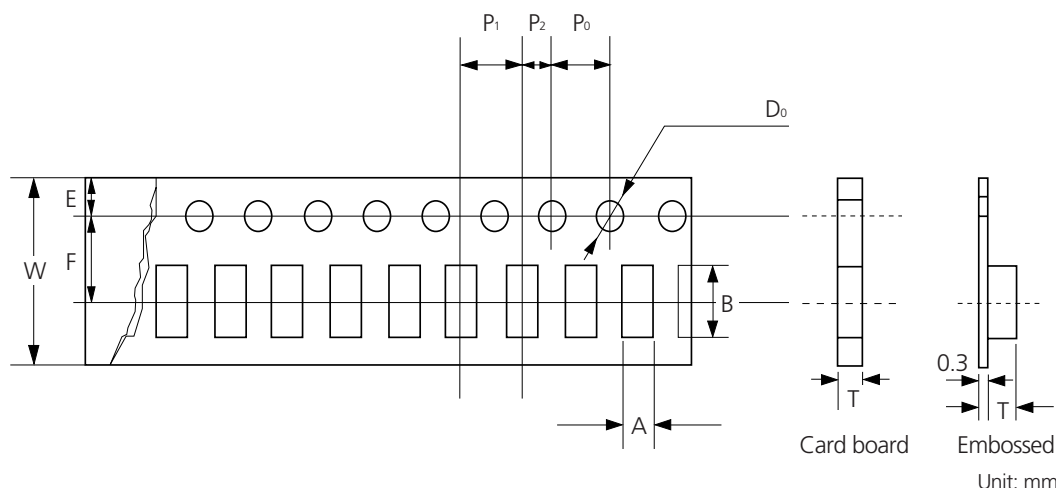
ΔT (°C)	Soldering Temp. (°C)	Pre-heating Time (sec)	Soldering Time (sec)
≤ 150 (1206 and below size)	260±3	≥ 120	≤ 5

SOLDER IRON (Hand Soldering)

Variation of Temp. (°C)	Soldering Temp. (°C)	Pre-heating Time (sec.)	Soldering Time (sec.)	Cooling Time (sec.)	Condition of Iron Facilities		
					Wattage	Tip Diameter	Soldering Time
$\Delta T \leq 130$	300±10°C max.	≥ 60 sec.	≤ 4 sec.	-	20W max.	3mm max.	4 sec max.

※ Caution - Iron tip should not contact with ceramic body directly

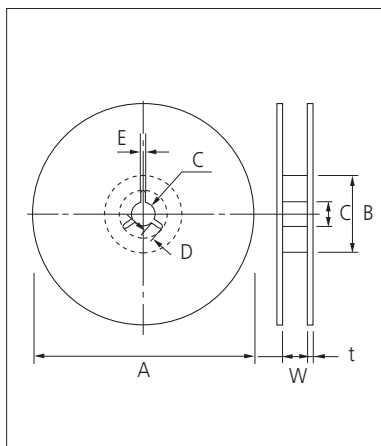
Packaging



Type	03	05	10		21				22		31				32	41		
Tape	Card	Card	Card	Card	Embossed			Card		Embossed		Embossed			Card	Embossed	Embossed	
Chip Thickness	0.3	0.5	0.5	0.8	0.9	1.0	1.25	0.5	0.85	1.0	1.2	0.6	0.8	1.1	0.85	1.3	N:1.6 A:1.2	
Chip Cavity	A	0.40 ±0.06	0.65 ±0.1	1.0 ±0.05	1.0 ±0.2	1.5 ±0.2	1.5 ±0.2	1.5 ±0.2	1.55 ±0.05	1.45 ±0.1	2.29 ±0.1	2.23 ±0.1	1.9 ±0.2	1.9 ±0.2	1.9 ±0.2	2.0 ±0.2	2.9 ±0.2	1.6T:1.9±0.2 1.2T:1.7±0.2
	B	0.70 ±0.06	1.15 ±0.1	1.9 ±0.05	1.8 ±0.2	2.3 ±0.2	2.3 ±0.2	2.3 ±0.2	2.3 ±0.55	2.4 ±0.2	2.74 ±0.1	2.73 ±0.10	3.6 ±0.2	3.6 ±0.2	3.6 ±0.2	3.6 ±0.2	3.6 ±0.2	4.9 ±0.2
T max	0.45	0.8	0.65 ±0.05	1.1	1.1	2.0	2.0	0.6 ±0.05	0.95 ±0.1	1.14 ±0.1	1.6 ±0.1	1.15	1.4	1.4	1.1	1.55	1.6T:1.95 1.2T:1.45	
W	8.0 ±0.2	8.0 ±0.2	8.0 ±0.1	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	8.0 ±0.1	8.0 ±0.3	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	8.0 ±0.2	1.6T:12.0±0.3 1.2T:12±0.1	
F	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	3.5 ±0.05	5.5 ±0.05	
E	1.75 ±0.1	1.75 ±0.1	1.75 ±0.05	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	1.75 ±0.1	
P ₁	2.0 ±0.05	2.0 ±0.05	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	
P ₂	2.0 ±0.1	2.0 ±0.1	2.0 ±0.1	2.0 ±0.1	2.0 ±0.05	2.0 ±0.1	2.0 ±0.1	2.0 ±0.05	2.0 ±0.1	2.0 ±0.1	2.0 ±0.1	2.0 ±0.1	2.0 ±0.1	2.0 ±0.1	2.0 ±0.05	2.0 ±0.1	2.0 ±0.05	
P ₀	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	4.0 ±0.1	
D ₀	Ø1.5 ±0.1	Ø1.5 ±0.1	Ø1.55 ±0.03	Ø1.5 ±0.1	Ø1.5 ±0.1	Ø1.5 ±0.1	Ø1.5 ±0.1	Ø1.55 ±0.1	Ø1.5 ±0.1	Ø1.55 ±0.1	Ø1.55 ±0.1	Ø1.5 ±0.1	Ø1.5 ±0.1	Ø1.5 ±0.1	Ø1.5 +0.1	Ø1.5 ±0.1	Ø1.5 +0.1	
Quantity /Reel (PCS)	10,000	10,000	4,000	4,000	4,000	3,000	2,000	4,000	4,000	3,000	2,500	4,000	3,000	3,000	4,000	2,500	2,000 /3,000	

• Reel dimensions

Unit: mm



Symbol	Tape Width	A	B	C	D
7" Reel	8mm	Ø180+0/-3	Ø60+1/-0	Ø13±0.3	4±0.2
	12mm	Ø180+0/-3	Ø60+1/-0	Ø13±0.3	4±0.2
10" Reel	8mm	Ø258+0/-3	Ø80+1/-0	Ø13±0.3	4±0.2
	12mm	Ø258+0/-3	Ø80+1/-0	Ø13±0.3	4±0.2
13" Reel	8mm	Ø330±2.0	Ø80±1.0	Ø13±0.3	4±0.2
	12mm	Ø330±2.0	Ø80±1.0	Ø13±0.3	4±0.2
Symbol	Tape Width	E	W	t	
7" Reel	8mm	2.0±0.5	9±0.5	1.2±0.2	
	12mm	2.0±0.5	13±0.5	1.2±0.2	
10" Reel	8mm	2.0±0.5	9±0.5	1.8±0.2	
	12mm	2.0±0.5	13±0.5	1.8±0.2	
13" Reel	8mm	2.0±0.5	9±0.5	2.2±0.2	
	12mm	2.0±0.5	13±0.5	2.2±0.2	



SAMSUNG
ELECTRO-MECHANICS

ISO/TS 16949



ISO 14001



OHSAS 18001



QC080000



Quality System Certification List

Table 1: Certification list of Samsung Factory

Certification	Section	Busan(Korea)
ISO / TS 16949	Authority	BSI
	Number	LC 560979
	Date	2012 - 07 - 16
	Validity	2013 - 07 - 15
ISO 14001	Authority	UL
	Number	20003857 UM
	Date	2010 - 07 - 11
	Validity	2013 - 07 - 10
OSHAS 18001	Authority	UL
	Number	20003857 BSOH
	Date	2010 - 07 - 25
	Validity	2013 - 07 - 24
QC080000	Authority	UL
	Number	KR-HSPM-1012
	Date	2010 - 07 - 20
	Validity	2013 - 07 - 19