

**BCCWH-322522FT-S 1210 Series**

SHAPES		ELECTRICAL CHARACTERISTICS	
		INDUCTANCE	0.27uH~1000uH
		Q (Min.)	10~40 MHz
		SRF (Min.)	2~500 MHz
		DCR (Max.)	0.08Ω~46Ω
		Irms (Max.)	95 mA~3400 mA
DIMENSIONS IN (mm)		TEST FREQUENCY	
A	3.60 Max.	(REFERENCE PAGE.2)	
B	2.90 Max.		
C	2.50 Max.		
D	1.10 Ref.	EQUIVALENT CIRCUIT	
E	0.50 ± 0.1	Equivalent circuit  No Polarity	

## ORDERING CODE :

BCCWH - 322522FT - S

(1)      (2) (3) (4) (5)      (6)

- (1) Product Code
- (2) Dimension
- (3) Material: Ferrite
- (4) S: Special electrical characteristics
- (5) Inductance
- (6) Tolerance : J=±5%, K=±10%

## BCCWH-322522FT-S 1210 Series

### Electrical Characteristics

Our Product Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Min.	SRF(Min.) (MHz)	Rdc (Ω)Max.	Isat Max. (mA)	Irms Typ. (mA)	Color Coding		
								1st	2nd	3rd
BCCWH-322522FT-SR27□	0.27/25	J	40/25	500	0.080	3900	3400	Red	Violet	Brown
		K								
BCCWH-322522FT-SR33□	0.33/25	K	40/25	500	0.090	3400	2600	Orgnge	Orgnge	Brown
BCCWH-322522FT-SR39□	0.39/25	J	40/25	500	0.090	3100	2200	Orgnge	White	Brown
BCCWH-322522FT-SR47□	0.47/25	J	40/25	500	0.090	3200	2400	Yellow	Violet	Brown
		K								
BCCWH-322522FT-SR56□	0.56/25	K	40/25	500	0.100	2900	2300	Green	Blue	Brown
BCCWH-322522FT-SR68□	0.68/25	J	40/25	450	0.120	2500	-	Blue	Gray	Brown
		K								
BCCWH-322522FT-SR82□	0.82/25	J	40/25	450	0.105	2400	2300	Gray	Red	Brown
		K								
BCCWH-322522FT-SR91□	0.91/25	J	45/25	410	0.165	2100	1600	White	Brown	Brown
		K								
BCCWH-322522FT-S1R0□	1.0/7.9	J	35/7.9	340	0.125	2400	1750	Brown	Black	Red
		K								
BCCWH-322522FT-S1R2□	1.2/7.9	K	35/7.9	280	0.135	2400	1650	Brown	Red	Red
BCCWH-322522FT-S1R5□	1.5/7.9	K	30/7.9	160	0.145	2100	1750	Brown	Green	Red
BCCWH-322522FT-S1R8□	1.8/7.9	J	30/7.9	120	0.160	2100	1450	Brown	Gray	Red
		K								
BCCWH-322522FT-S2R0□	2.0/7.9	J	30/7.9	110	0.165	1800	-	Red	Black	Red
		K								
BCCWH-322522FT-S2R2□	2.2/7.9	J	30/7.9	100	0.170	1800	1450	Red	Red	Red
		K								
BCCWH-322522FT-S2R5□	2.5/7.9	J	30/7.9	80	0.190	1700	-	Red	Green	Red
		K								
BCCWH-322522FT-S2R7□	2.7/7.9	J	30/7.9	75	0.185	1500	-	Red	Violet	Red
		K								
BCCWH-322522FT-S3R3□	3.3/7.9	J	30/7.9	70	0.210	1600	1300	Orgnge	Orgnge	Red
		K								
BCCWH-322522FT-S4R7□	4.7/7.9	J	28/7.9	55	0.300	1300	1100	Yellow	Violet	Red
		K								

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								1st	2nd	3rd
BCCWH-322522FT-S5R6□	5.6/7.9	J	28/7.9	50	0.350	1100	-	Green	Blue	Red
		K								
BCCWH-322522FT-S6R8□	6.8/7.9	J	28/7.9	45	0.370	1100	1000	Blue	Gray	Red
		K								
BCCWH-322522FT-S8R2□	8.2/7.9	J	28/7.9	45	0.470	940	-	Gray	Red	Red
		K								
BCCWH-322522FT-S100□	10/2.5	J	22/2.5	47	0.500	990	800	Brown	Black	Orange
		K								
BCCWH-322522FT-S120□	12/2.5	J	22/2.5	42	0.680	770	-	Brown	Red	Orange
		K								
BCCWH-322522FT-S150□	15/2.5	J	22/2.5	34	0.720	740	-	Brown	Green	Orange
		K								
BCCWH-322522FT-S180□	18/2.5	J	22/2.5	28	0.950	630	-	Brown	Gray	Orange
		K								
BCCWH-322522FT-S220□	22/2.5	J	22/2.5	25	1.100	640	550	Red	Red	Orange
		K								
BCCWH-322522FT-S270□	27/2.5	J	20/2.5	18	1.250	600	510	Red	Violet	Orange
		K								
BCCWH-322522FT-S330□	33/2.5	J	20/2.5	13	1.370	490	-	Orgnge	Orgnge	Orange
		K								
BCCWH-322522FT-S390□	39/2.5	J	20/2.5	13	1.850	400	-	Orange	White	Orange
		K								
BCCWH-322522FT-S470□	47/2.5	J	20/2.5	12	1.880	470	410	Yellow	Violet	Orange
		K								
BCCWH-322522FT-S560□	56/2.5	J	22/2.5	10	2.750	360	-	Green	Blue	Orange
		K								
BCCWH-322522FT-S680□	68/2.5	J	22/2.5	10	3.000	380	330	Blue	Gray	Orange
		K								
BCCWH-322522FT-S820□	82/2.5	J	22/2.5	10	4.100	300	-	Gray	Red	Orange
		K								
BCCWH-322522FT-S101□	100/1.0	J	15/1.0	8	4.682	310	260	Brown	Black	Yellow
		K								
BCCWH-322522FT-S121□	120/1.0	J	15/1.0	7	5.800	220	-	Brown	Red	Yellow
		K								
BCCWH-322522FT-S151□	150/1.0	J	13/1.0	7	6.102	260	230	Brown	Green	Yellow
		K								

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								1st	2nd	3rd
BCCWH-322522FT-S181□	180/1.0	J K	13/1.0	3	7.100	250	210	Brown	Gray	Yellow
BCCWH-322522FT-S221□	220/1.0	J K	13/1.0	3	7.650	220	190	Red	Red	Yellow
BCCWH-322522FT-S271□	270/1.0	J K	13/1.0	3	12.520	150	-	Red	Violet	Yellow
BCCWH-322522FT-S331□	330/1.0	J K	13/1.0	3	12.62	170	160	Orgnge	Orgng	Yellow
BCCWH-322522FT-S391□	390/1.0	J K	13/1.0	3	23.00	120	-	Orange	White	Yellow
BCCWH-322522FT-S471□	470/1.0	J K	13/1.0	3	25.00	135	130	Yellow	Violet	Yellow
BCCWH-322522FT-S561□	560/1.0	J K	13/1.0	2	27.00	100	-	Green	Blue	Yellow
BCCWH-322522FT-S681□	680/1.0	J K	13/1.0	2	31.00	100	-	Blue	Gray	Yellow
BCCWH-322522FT-S821□	820/1.0	J K	10/1.0	2	42.00	100	95	Gray	Red	Yellow
BCCWH-322522FT-S102□	1000/1.0	J K	10/1.0	2	46.00	95	95	Brown	Black	Red

Tolerance : J = ±5% , K = ±10%

Packaging : Clear tape and reel { standard }.

L , Q : Agilent/HP E4991A+ Agilent/HP16197A

(The electrical specification test by the smallest gap position) or HP16193A

SRF : Agilent/HP E4991A+ Agilent/HP 16197A

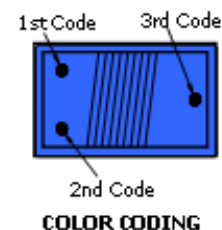
(The electrical specification test by the smallest gap position) or HP16193.

Rdc : DIGITAL MILLIOHM METER Chroma 16502, or equivalent.

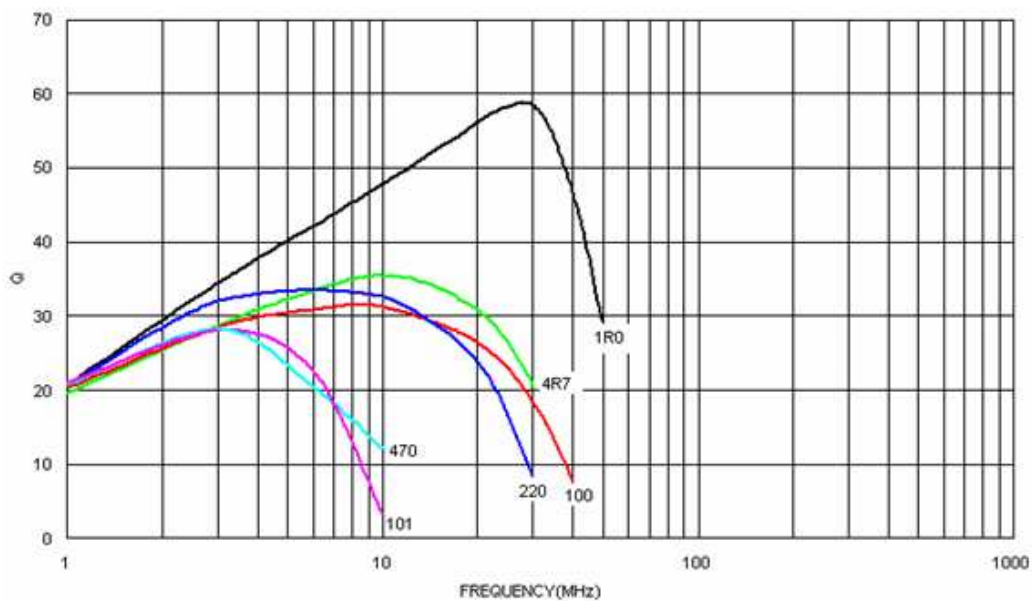
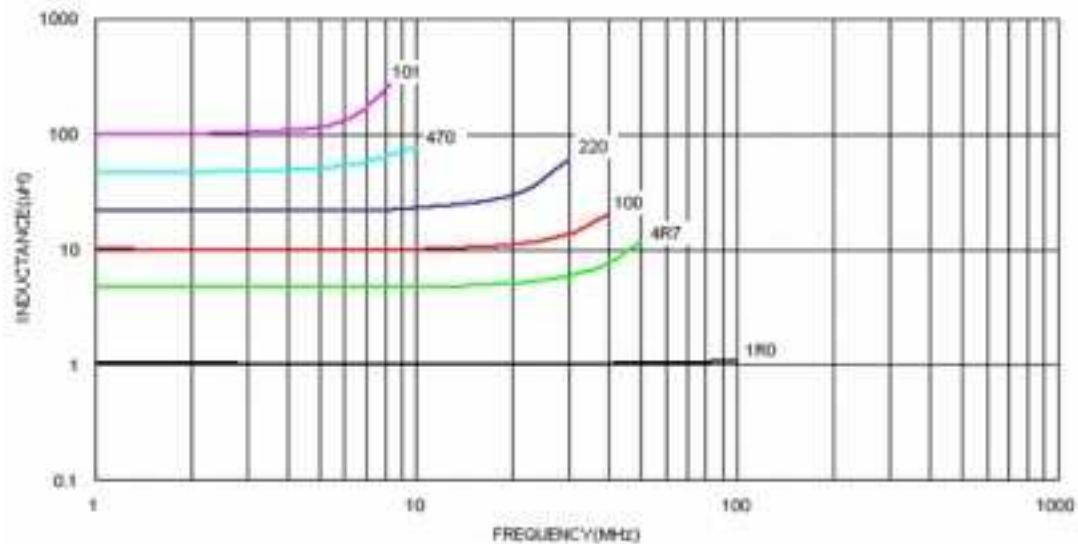
Isat: Idc obtained when Inductance drop 35% from its value without curren .

Irms for 40°C rise from 25°C ambient.

Operating temperature range from -25°C to 85°C.



**BCCWH-322522FT-S 1210 Series**



## Material list

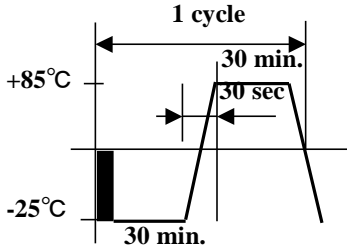
Item	Material
Core	Ferrite core
Wire	Copper wire
Epoxy	UV Eopxy

## BCCWH-322522FT-S 1210 Series

## Reliability Test

Item	Specifications	Test conditions
Solderability	The metalized area must have 90% minimum solder coverage.	Dip pads in flux and dip in solder pot( 96.5 Sn/3.5 Ag solder) at 260°C ±5°C.
Resistance to soldering heat	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be reflowed onto a PC board using 96.5 Sn/3.5 Ag solder paste. Solder process shall be at a maximum temperature of 260°C. For 96.5 Sn/3.5 Ag solder paste:>217°C for 90 seconds
Vibration	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Solder specimen inductor on the test printed circuit board. Apply vibrations in each of the x,y and z directions for 2 house for a total of 6 hours. Frequency : 10~50 Hz Amplitude : 1.5mm
High temperature resistance	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature 85±2 °C for 500±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Static Humidity	Inductors must not have a shorted or openwinding.	Inductors shall be subjected to temperature 85±2 °C and 90 to 95%RH. for ten 24-hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Component adhesion (push test)	Inductors shall be subjected to 1.8Kg	Inductors shall be reflow soldered (260°C ±5°C for 10 seconds) to a tinned copper substrate. A force gauge shall be applied to the side of the component. The device must withstand the stated force without a failure of the termination.

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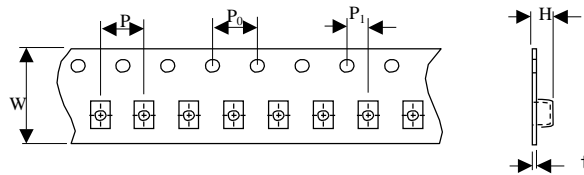
<p>Low temperature storage</p>	<p>There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.</p>	<p>Inductors shall be subjected to temperature <math>-25\pm 2^{\circ}\text{C}</math> for <math>48\pm 12</math> hours. Measure the test items after leaving the inductors at room temperature and humidity for 1 to 2 hours.</p>
<p>Resistance to solvent</p>	<p>There must be no case deformation, change in dimensions, or obliteration of marking.</p>	<p>Inductors must withstand 6 minutes of alcohol or water.</p>
<p>Thermal shock</p>	<p>There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.</p>	<p>Inductors shall be subjected to 10 cycles to the following temperature cycle:</p>  <p>Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.</p>

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### Packaging

The packaging must be done not to receive any damage during transporting and storing.

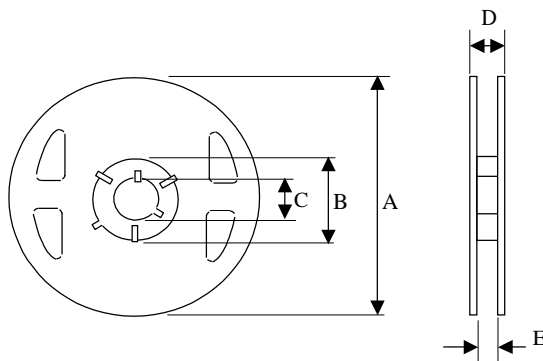
#### 1 Tape dimensions



(Dimensions in mm)

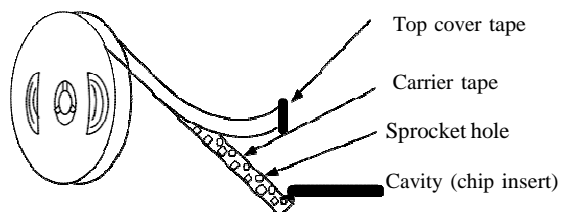
Symbol	W	P	P <sub>0</sub>	P <sub>1</sub>	H	T
Dimension	8	4	4	2	NA	0.23

#### 2 Reel dimensions



Symbol	T
A	180
B	60
C	13
D	14.4
E	8.4

#### 3 Tapping figure

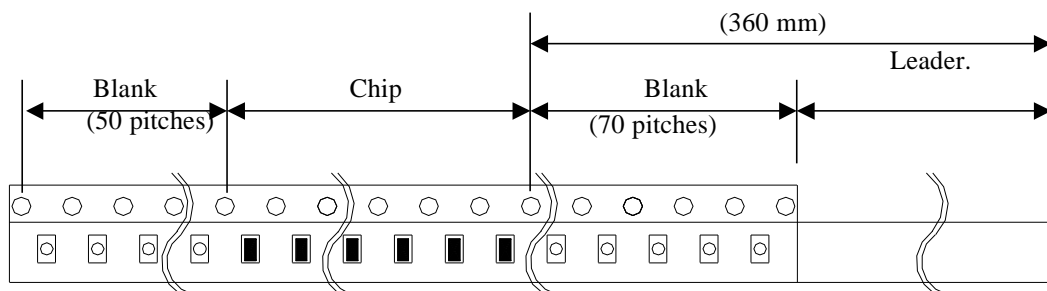




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### 4 Packaging Form

There shall not continuation more than two vacancies of the product.



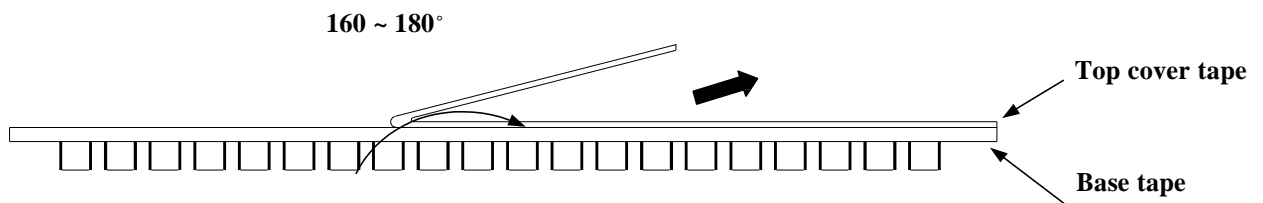
### 5 Cover Tape Peel Strength

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



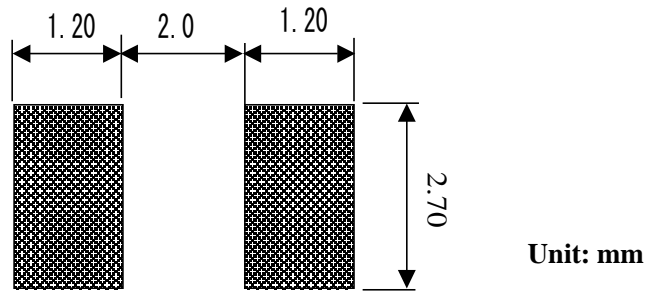
### 6 Packing Quantity

φ180 mm reel type : 2,000 pcs./reel

## BCCWH-322522FT-S 1210 Series

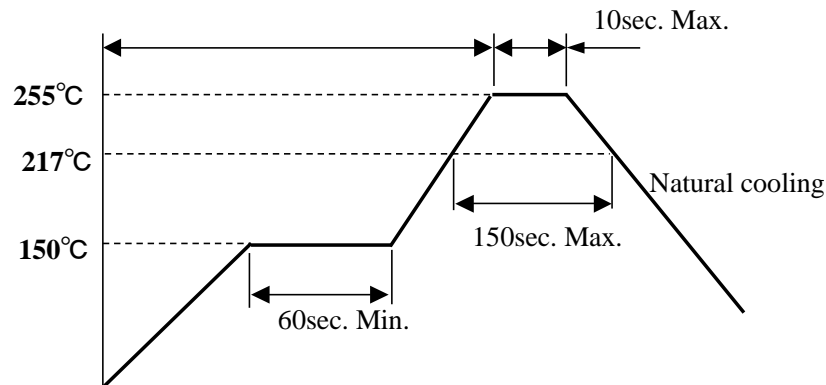
### Recommended Soldering Conditions (Please use this product by reflow soldering)

#### 1 Recommended Footprint



#### 2 Recommended Reflow Pattern

Reflow : until two times



#### 3 Iron Soldering

Use a solder iron of less than 30W when soldering, do not allow the soldering iron tip directly touch the Ceramic body outside of terminal electrode.

3 seconds max. at 260°C.

#### Attention in Case of Using

In case of using product, please avoid following matters:

Splashing water or salt water

Dew condenses

Toxic gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)

Vibrations or shocks which exceed the specified condition

Please be careful for the stress to this product by board flexure or something after the mounting.

#### Others

10-1 Operating temperature range : Ferrite Series : -25~+85°C

: Ceramic Series : -40~+125°C

10-2 Storage condition : Temperature 20°~25°C, Relative Humidity 50%~70%