

Wire Wound Chip Inductor (Ferrite)

BCCWH201209FT SERIES

Features

- Very strong solderability by flow soldering, soldering iron or wave soldering
- Highly accurate dimensions, can be mounted automatically
- Terminals are highly resistant to pull forces
- Highly resistant to mechanical shocks and pressure
- Highly reliable in environments of sudden temperature change and humidity.
- Super Q characteristics

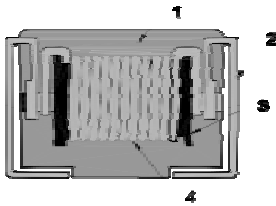


Applications

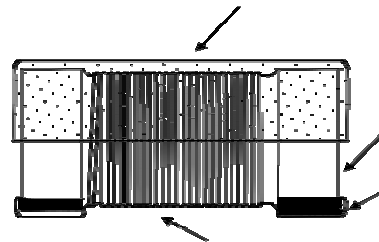
- Micro Televisions, Liquid Crystal Televisions, Video Cameras, Portable VCRs, Car Radios, Car Stereos, Thin Tape Radios, Television Tuners, Mobile Telephones, Radio and Other Electronic Devices

Construction

Molding Type



Open Type



Molded resin	Ferrite core
Electrode (Tinned Copper Wire)	Magnet wire

Ferrite core	Electrode (Ag/Pd+Ni+Sn)
Magnet wire	UV Glue

Part Numbering

BCCWH	201209	FT	1R0	K
Product Type	Dimensions (LxW) 2.4x1.71x1.45	Material: Ferrite	Inductance R12: 120nH R27: 270nH 2R7: 2700nH 100: 10µH	Inductance Tolerance J: ±5% K: ±10% M: ±20%

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Dimensions

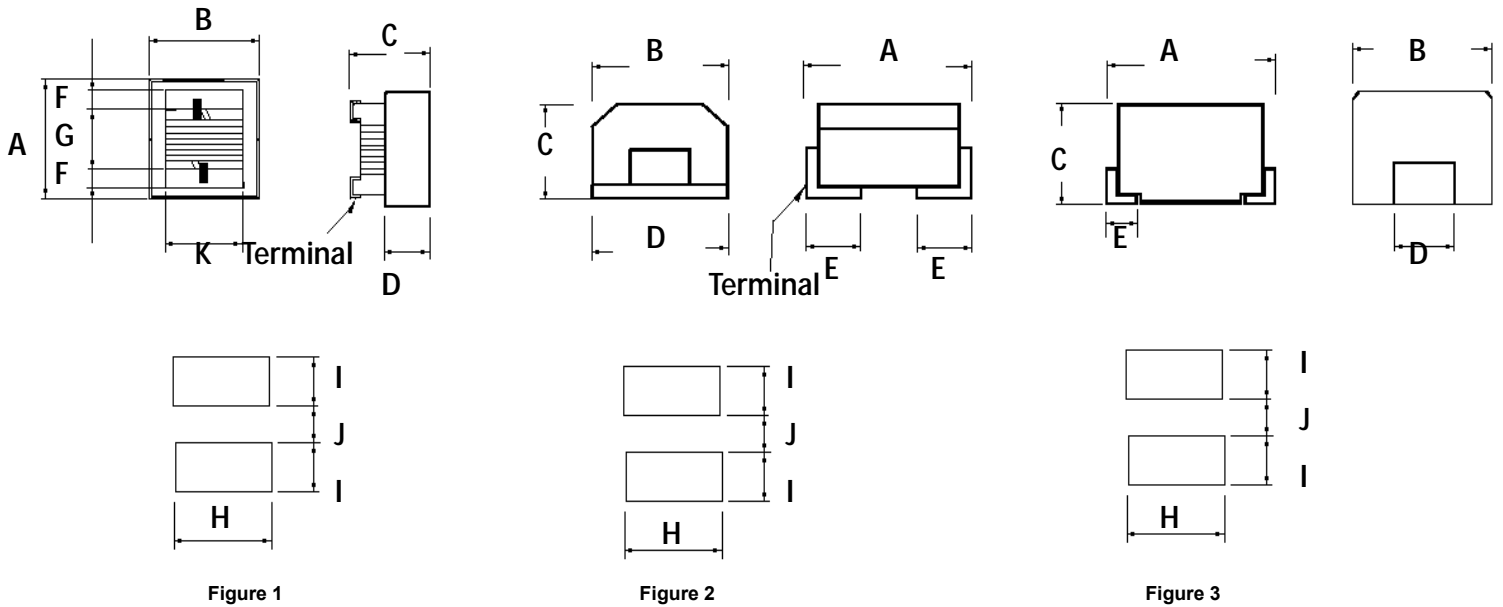


Figure 1

Figure 2

Figure 3

Unit: mm

Type	Size (Inch)	Figure	A	B	C	D	E	F	G	H	I	J	K	Weight (g) (1000pcs)
BCCWH	160808	1	1.80 max	1.20 max	1.00 max	0.45	-	0.33	0.95	1.02	0.64	0.64	1.05	9.6
BCCWH	201209	1	2.40 max	1.71 max	1.45 max	0.65	-	0.44	1.02	1.78	1.02	0.76	1.27	14
BCCWH	252018	1	2.92 max	2.79 max	2.10 max	1.20	-	0.45	1.52	2.54	1.02	1.27	2.03	30
BCCWH	322522	2	3.2±0.4	2.5±0.2	2.2±0.2	1.0±0.2	0.6-0/+0.3	-	-	1.40	1.00	1.80	-	40
BCCWH	453232	2	4.5±0.3	3.2±0.2	3.2±0.2	1.20	1.0-0/+0.3	-	-	1.60	1.50	2.20	-	160
BCCWH	565040	3	5.6±0.3	5.0±0.2	4.0±0.3	4±0.2	0.7±0.2	-	-	4.50	2.00	4.00	-	300

Color Coding

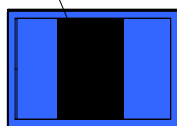
160808/ 201209 / 252018 Type

Because of small sizes, these parts are marked with a single color dot.

The inductance value represented by the dot is shown on the data page for each type.

160808/ 201209

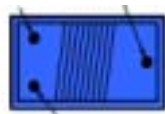
1st Code



Color Coding

252018

1st Code 3rd Code



2nd Code

Color Coding

BCCWH--FT SERIES



BCCWH-201209FT SERIES Wire Wound Chip Inductors (Ferrite / Open Type) / Standard Type

Codes	Inductance (μH)	Tolerance	Q min.	Test Freq. (MHz)	SRF (MHz) min.	DCR (Ω) max.	IDC (mA) max.	Color Code
R11	0.11	±10%	25	25.2	1200	0.05	2000	White
R12	0.12	±5, ±10%	20	25.2	700	0.18	1100	Violet
R15	0.15	±5, ±10%	20	25.2	900	0.18	1100	Gray
R18	0.18	±5, ±10%	20	25.2	600	0.20	800	Black
R22	0.22	±5, ±10%	20	25.2	550	0.25	700	Brown
R27	0.27	±5, ±10%	20	25.2	550	0.38	700	Red
R33	0.33	±5, ±10%	20	25.2	550	0.35	650	Orange
R39	0.39	±5, ±10%	20	25.2	420	0.35	600	Yellow
R47	0.47	±5, ±10%	20	25.2	350	0.45	600	Green
R56	0.56	±5, ±10%	20	25.2	300	0.45	550	Blue
R62	0.62	±5, ±10%	30	25.2	640	0.45	980	Brown
R68	0.68	±5, ±10%	20	25.2	300	0.60	500	Violet
R82	0.82	±5, ±10%	20	25.2	300	0.55	500	Gray
R91	0.91	±5, ±10%	30	25.2	500	0.55	900	Yellow
1R0	1.0	±5, ±10%	15	7.96	280	0.80	450	White
1R2	1.2	±5, ±10%	15	7.96	280	0.90	400	Black
1R5	1.5	±5, ±10%	15	7.96	250	1.05	350	Brown
1R8	1.8	±5, ±10%	15	7.96	120	1.00	350	Red
2R2	2.2	±5, ±10%	15	7.96	110	1.10	320	Orange
2R7	2.7	±5, ±10%	15	7.96	70	1.20	320	Yellow
3R3	3.3	±5, ±10%	15	7.96	60	1.50	300	Green
3R9	3.9	±5, ±10%	15	7.96	55	1.75	300	Blue
4R7	4.7	±5, ±10%	15	7.96	45	2.10	200	Violet
5R6	5.6	±5, ±10%	15	7.96	40	2.30	250	Gray
6R8	6.8	±5, ±10%	15	7.96	36	2.70	200	White
8R2	8.2	±5, ±10%	15	7.96	33	3.30	180	Black
100	10	±5, ±10%	10	2.52	30	4.50	180	Brown
120	12	±5, ±10%	16	2.52	37	2.80	220	Red
150	15	±5, ±10%	16	2.52	30	3.80	200	Orange
180	18	±5, ±10%	16	2.52	23	4.48	180	Yellow
220	22	±5, ±10%	16	2.52	20	6.30	160	Green
270	27	±5, ±10%	16	2.52	19	6.85	140	Blue
330	33	±5, ±10%	16	2.52	18	7.60	120	Violet
390	39	±5, ±10%	15	2.52	16	8.20	100	Gray

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Environmental Characteristics

Electrical Performance Test

Item	Requirement	Test Method
Inductance	Refer to standard electrical characteristic spec.	HP4291 or HP4284
Q		HP4291 or HP4284
SRF		HP4291
DC Resistance DCR		Agilent 34401A
Rated Current IDC		Applied the current to coils, The inductance change should be less than 10% to initial value

Mechanical Performance Test

Item	Requirement	Test Method
Solderability	The electrodes shall be at least 90% covered with new solder coating	Lead-free inductor: after fluxing(alpha 100 or equiv), inductor shall be dipped in a melted solder bath at 245±5°C, 5±0.5 seconds
Resistance to Soldering Heat	Appearance: No damage	Pre-heating: 150°C, 1min. Solder Temperature: 260±5°C Immersion Time: 10±1 seconds
Vibration	Appearance: No damage L change: within±10% Q change: within±30% DCR: within specification	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1 min. Amplitude: 1.5 mm Time: 2 hrs for each axis (X, Y&Z), total 6 hrs

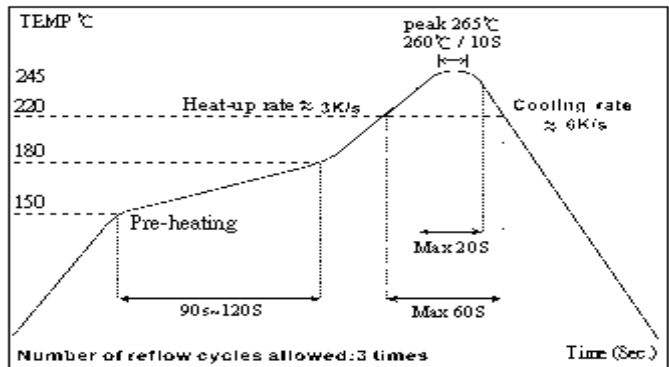
Climatic Test

Item	Requirement	Test Method															
Temperature Cycle	Appearance: No damage L change: within±10% Q change: within±30% DCR: within specification	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25±3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25±2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85±3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25±2</td> <td>3</td> </tr> </tbody> </table> Total: 100 cycles Measured after exposure in the room condition for 24 hrs	Step	Temperature (°C)	Time (min.)	1	-25±3	30	2	25±2	3	3	85±3	30	4	25±2	3
Step		Temperature (°C)	Time (min.)														
1		-25±3	30														
2		25±2	3														
3		85±3	30														
4	25±2	3															
Damp Heat with Load	Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000 hrs Measured after exposure in the room condition for 24 hrs																
High Temperature Storage	Temperature: 85±3°C Applied Current: Rated Current Time: 1000 hrs Measured after exposure in the room condition for 24 hrs																
Low Temperature Storage	Temperature: -25±3°C Time: 1000 hrs Measured after exposure in the room condition for 24 hrs																

Storage Temperature: 25±3 C; Humidity < 80%RH

Operating Temperature Range: -40~+85 C

Reflow

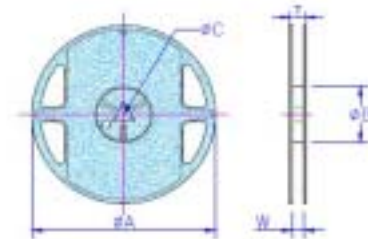


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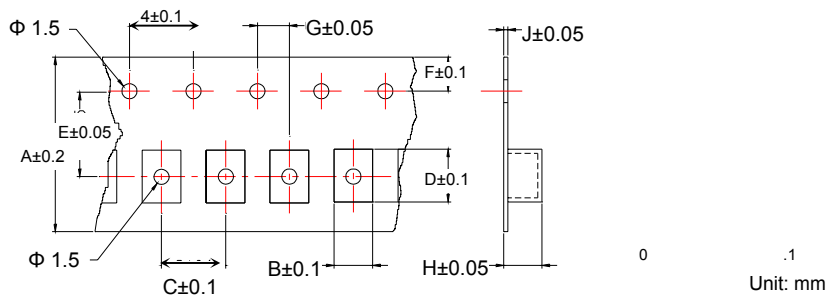
Packaging

Packaging Quantity & Reel Specifications

Type	A	B	C	W	T	Quantity (EA)
160808	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	4000
201209	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	2000
252018	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	2000
322522	178±2.0	60±0.5	13±0.3	9±0.3	12±1.0	2000
453232	178±2.0	80±0.5	13±0.3	13.2±0.3	16±1.0	500
565040	330±2.0	100±0.5	13±0.3	17.4±0.3	22±1.0	1000

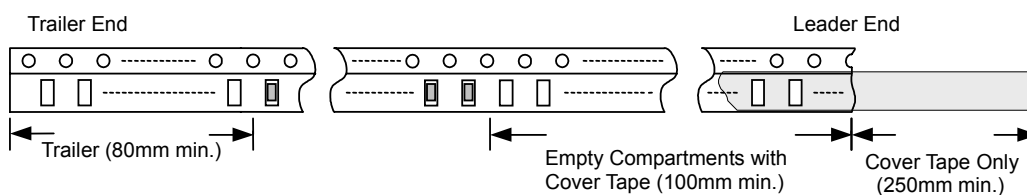


Embossed Plastic Tape Specifications



Type	A	B	C	D	E	F	G	H	J
160808	8	1.25	4	1.90	3.5	1.75	2	1.00	0.23
201209	8	1.85	4	2.55	3.5	1.75	2	1.45	0.23
252018	8	2.80	4	2.95	3.5	1.75	2	2.22	0.23
322522	8	2.96	4	3.60	3.5	1.75	2	2.40	0.23
453232	12	3.30	8	5.00	5.5	1.75	2	3.50	0.30
565040	16	5.35	12	6.10	7.5	1.75	2	5.50	0.35

Leader / Trailer Tape



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

Humidity: 45 ~ 85%

Atmospheric Pressure: 860 ~ 1060 hpa

