

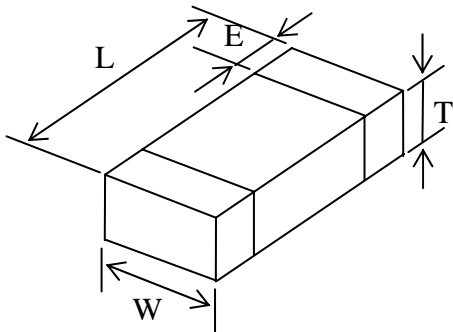
Multilayer chip inductor

3216(1206) series

PRODUCT DETAIL

Electrical Characteristics			Test Instruments
L	μH (Ref. Page 2~3)	TEST FREQ: (Ref. Page 2~3)	•HP4291B RF IMPEDANCE / MATERIAL ANALYZER •HP4338A/B MILLIOHM METER •Agilent 8720ES S-PARA METER NETWORK ANALYZER •HP6632B SYSTEM DC POWER SUPPLY
Q	(Ref. Page 2~3)	MHz	
SRF	MHz (Ref. Page 2~3)	TEST LEVEL: (Ref. Page 2~3)mV	
DCR	Ω (Ref. Page 2~3)		
IDC	mA (Ref. Page 2~3)		

SHAPES AND DIMENSIONS



Unit: mm

TYPE	3216E1
L	3.2±0.20
W	1.6±0.20
T	1.1±0.20
E	0.5±0.30

PART NUMBER AND CHARACTERISTICS TABLE

BCCL-3216E1 Series

Part No.	Thickness (mm)	Inductance (μH)	Q (min)	Freq. (MHz)	S.R.F (MHz) min	DCR(Ω) (Max.)	Rated Current (mA)
BCCL-3216E1-R047M	1.1 \pm 0.2	0.047 \pm 20%	20	50	320	0.15	300
BCCL-3216E1-R056M	1.1 \pm 0.2	0.056 \pm 20%	20	50	310	0.25	300
BCCL-3216E1-R068M	1.1 \pm 0.2	0.068 \pm 20%	20	50	280	0.25	300
BCCL-3216E1-R082M	1.1 \pm 0.2	0.082 \pm 20%	20	50	275	0.25	300
BCCL-3216E1-R10K	1.1 \pm 0.2	0.10 \pm 10%	20	25	270	0.25	250
BCCL-3216E1-R12K	1.1 \pm 0.2	0.12 \pm 10%	20	25	250	0.30	250
BCCL-3216E1-R15K	1.1 \pm 0.2	0.15 \pm 10%	20	25	200	0.30	250
BCCL-3216E1-R18K	1.1 \pm 0.2	0.18 \pm 10%	20	25	185	0.40	250
BCCL-3216E1-R22K	1.1 \pm 0.2	0.22 \pm 10%	20	25	170	0.40	250
BCCL-3216E1-R27K	1.1 \pm 0.2	0.27 \pm 10%	20	25	150	0.50	250
BCCL-3216E1-R33K	1.1 \pm 0.2	0.33 \pm 10%	20	25	145	0.50	250
BCCL-3216E1-R39K	1.1 \pm 0.2	0.39 \pm 10%	25	25	135	0.50	200
BCCL-3216E1-R47K	1.1 \pm 0.2	0.47 \pm 10%	25	25	125	0.60	200
BCCL-3216E1-R56K	1.1 \pm 0.2	0.56 \pm 10%	25	25	115	0.70	150
BCCL-3216E1-R68K	1.1 \pm 0.2	0.68 \pm 10%	25	25	105	0.80	150
BCCL-3216E1-R82K	1.1 \pm 0.2	0.82 \pm 10%	25	25	100	0.90	150
BCCL-3216E1-1R0K	1.1 \pm 0.2	1.0 \pm10%	45	10	87	0.40	100
BCCL-3216E1-1R2K	1.1 \pm 0.2	1.2 \pm 10%	45	10	75	0.50	100
BCCL-3216E1-1R5K	1.1 \pm 0.2	1.5 \pm 10%	45	10	69	0.50	50
BCCL-3216E1-1R8K	1.1 \pm 0.2	1.8 \pm 10%	45	10	64	0.50	50
BCCL-3216E1-2R2K	1.1 \pm 0.2	2.2 \pm 10%	45	10	58	0.60	50
BCCL-3216E1-2R7K	1.1 \pm 0.2	2.7 \pm 10%	45	10	52	0.60	50
BCCL-3216E1-3R3K	1.1 \pm 0.2	3.3 \pm 10%	45	10	48	0.70	50
BCCL-3216E1-3R9K	1.1 \pm 0.2	3.9 \pm 10%	45	10	44	0.80	50

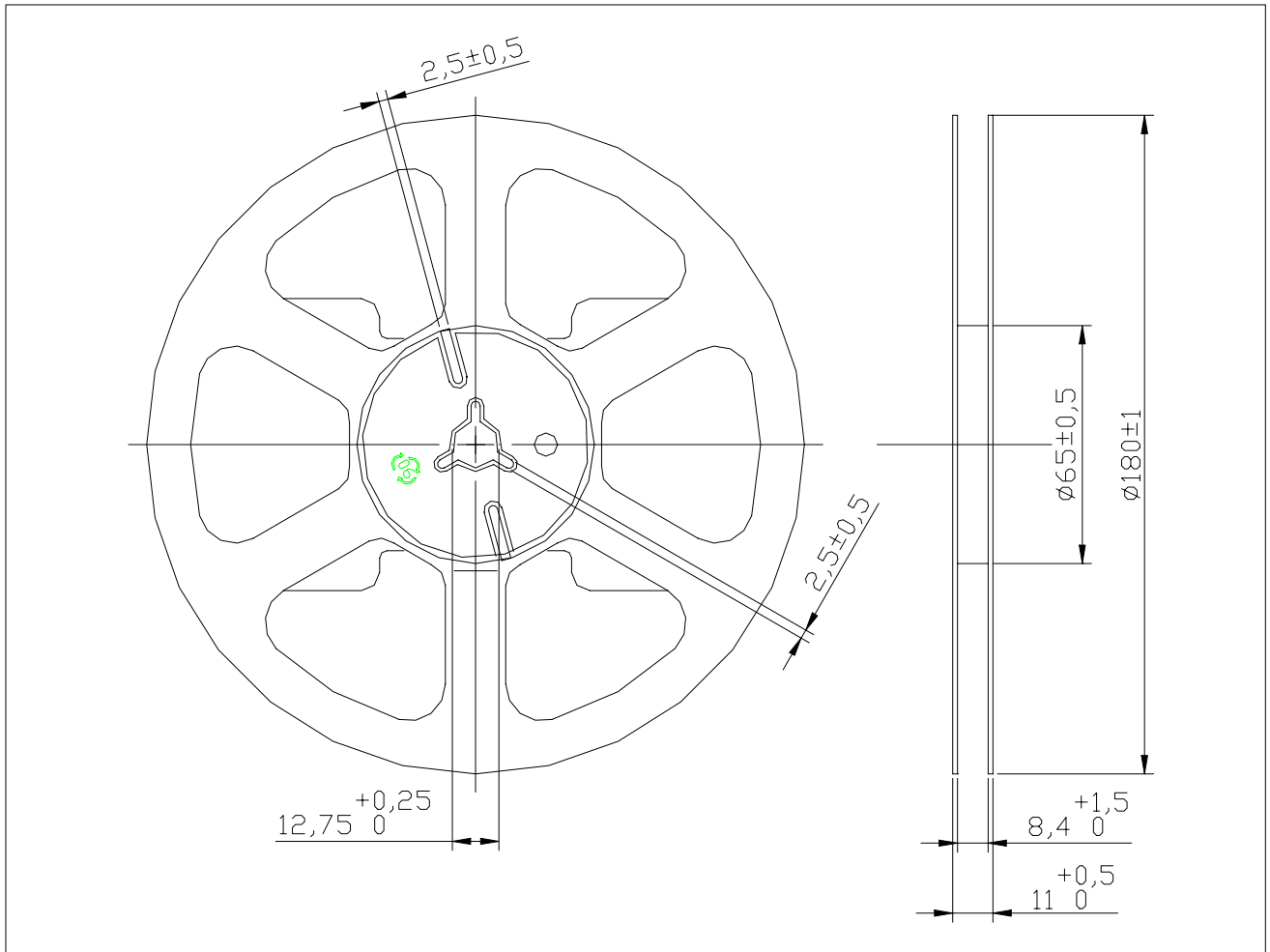
PART NUMBER AND CHARACTERISTICS TABLE

BCCL-3216E1 Series

Part No.	Thickness (mm)	Inductance (μ H)	Q (min)	Freq. (MHz)	S.R.F (MHz) min	DCR(Ω) (Max.)	Rated Current (mA)
BCCL-3216E1-4R7K	1.1 \pm 0.2	4.7 \pm 10%	45	10	41	0.90	50
BCCL-3216E1-5R6K	1.1 \pm 0.2	5.6 \pm 10%	50	4	32	0.80	25
BCCL-3216E1-6R8K	1.1 \pm 0.2	6.8 \pm 10%	50	4	29	0.90	25
BCCL-3216E1-8R2K	1.1 \pm 0.2	8.2 \pm 10%	50	4	26	1.00	25
BCCL-3216E1-10RK	1.1 \pm 0.2	10.0 \pm 10%	50	2	26	0.60	25
BCCL-3216E1-12RK	1.1 \pm 0.2	12.0 \pm 10%	50	2	26	0.60	15
BCCL-3216E1-15RK	1.1 \pm 0.2	15.0 \pm 10%	50	1	22	0.70	5
BCCL-3216E1-18RK	1.1 \pm 0.2	18.0 \pm 10%	50	1	21	0.70	5
BCCL-3216E1-22RK	1.1 \pm 0.2	22.0 \pm 10%	50	1	19	0.90	5
BCCL-3216E1-27RK	1.1 \pm 0.2	27.0 \pm 10%	50	1	17	0.90	5
BCCL-3216E1-33RK	1.1 \pm 0.2	33.0 \pm 10%	50	1	15	1.05	5

REEL DIMENSIONS

Unit: mm

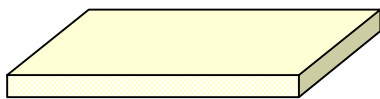
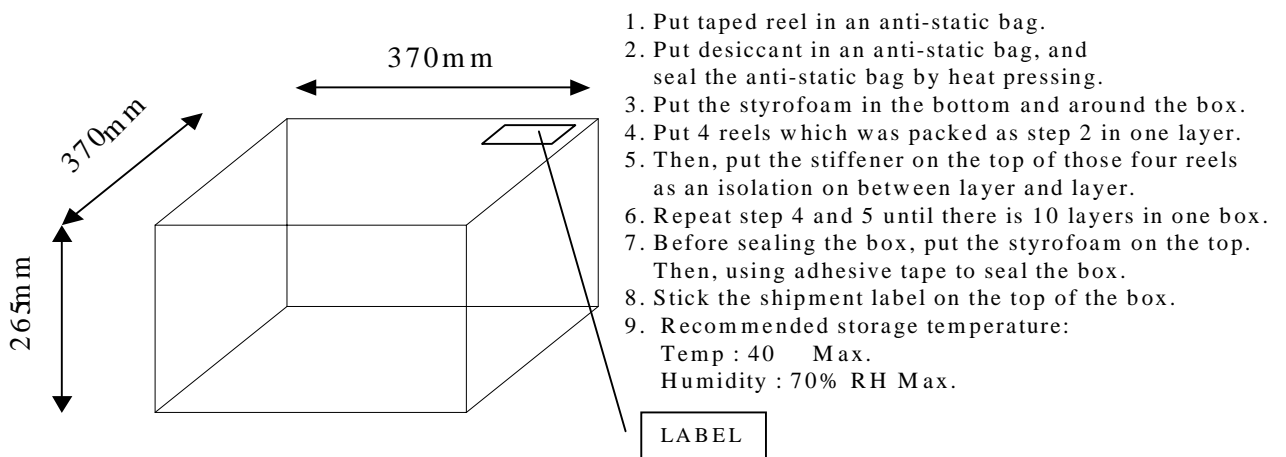


Reel Packaging Quantity

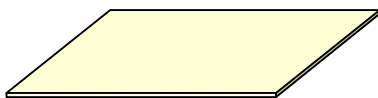
PART SIZE		1005	1608	201209	201212	3216	3225	4516	4532
7" REEL	Qty. (pcs)	10,000	4,000	4,000	2,000	3,000	2,000	2,000	1,000
13" REEL		NA	NA	10,000	10,000	10,000	5,000	5,000	2,500
BULK		20,000	20,000	20,000	20,000	20,000	10,000	10,000	10,000

PACKING

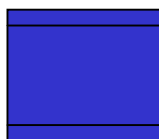
Carton size	L*W*H (mm)	Loading Quantity 7" (reels)	Loading quantity 13" (reels)
L	370*370*265	40	12
M	370*370*133	20	5
S	370*200*133	20	-



Styrofoam: x 6 (350mm*350mm*15mm)



Stiffener: x 10 (340*340mm)



Taped reel + desiccant + anti-static bag: x 40

RELIABILITY AND TEST CONDITION

Stress	Performance	Test Condition
Leaching (Resistance to Solder Heat)	The chip should not crack; More than 90% of the terminal electrode should be covered with solder, free from defects, chip body should not expose.	1.Solder: Alpha Sn100 2.Solder Temp: 260 ± 5 3.Flux: Rosin 4.Dip time: 10 ± 1 sec
Solderability 1 (IR Re-flow test)	1.Sn cover area need to over half thickness of chip 2.Chip shift distance under 50% of width 3.No short , open ,...etc defect symptom	1.Solder: KOKI S3x58-M405 SnAg3Cu0.5 2.General:135/135/195/235 3.100% TIN:155/155/220/265 4.Sn:Pb=63:37
Solderability 2 (After steam 8 hrs)	More than 90% of the terminal electrode should be covered with new solder	1.Steam 8 hrs 2.Solder: Alpha Sn100 3.Solder Temp.:235 ± 5 4.Flux: Rosin 5.Dip time:5 ± 1 sec
Terminal Strength	The terminal electrode should not peel off	100505>0.2kgt , 160808>0.3kgt , 201209>0.6kgt , 201212>0.6kgt , 321611>1.0kgt , 322513>1.0kgt , 451616>1.0kgt , 453215>1.5kgt , ; pulling time:30 ± 5 sec
Bending Strength	The body should not be damaged by force applied on the right	100505>0.2kgf , 160808>0.3kgf , 201209>1.0kgf , 201212>1.0kgf , 321611>2.0kgf , 322513>2.5kgf , 451616>2.5kgf , 453215>2.5kgf , BCCBA3216>2.0kgf
Flexure Strength	No mechanical damage shall be noticed even when the board is bent 2 mm (0.079 inches)	1.At ambient temperature & Humidity 2.To bend 2 mm
Thermal Shock	1.No mechanical damage 2.Inductance should be within ± 10% of the initial value 3.Q value should be within ± 30% of the initial value 4.Impedance value should be within ± 20% of the initial value	1.Temperature:-40 ~ 85 For 30 minutes each 2.Cycle: 100 cycles 3.Measurement: At ambient temperature 24 hours After test completion

<p>Operational Life</p>	<p>1.No mechanical damage 2.Inductance should be within $\pm 10\%$ of the initial value 3.Q value should be within $\pm 30\%$ of the initial value 4.Impedance value should be within $\pm 20\%$ of the initial value</p>	<p>1. Temperature: 125 ± 5 2. Testing time: 1000 hrs 3. Applied current: Full rated current 4. Measurement: At ambient temperature 24 hours After test completion</p>
<p>Biased Humidity</p>	<p>1.No mechanical damage 2.Inductance should be within $\pm 10\%$ of the initial value 3.Q value should be within $\pm 30\%$ of the initial value 4.Impedance value should be within $\pm 20\%$ of the initial value</p>	<p>1.Temperature: 40 2.Humidity: 90-95 % RH 3.Applied current: Full rated current 4.Testing time: 1000 hrs 5. Measurement: At ambient temperature 24 hours After test completion</p>
<p>Rated Current</p>	<p>1.BCCB / BCCL / BCCLH product Surface temperature below room temperature plus 10 2.High current product surface temp. below room temperature plus 40</p>	<p>1.At ambient temperature & humidity 2.Testing time:5 minutes (under full rated current)</p>