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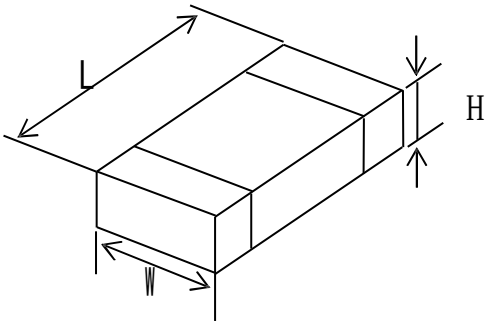
SHAPES



ELECTRICAL CHARACTERISTICS

L	0.47~10uH
IDC (Max.)	700~1800mA
SRF (Min.)	25~105 MHz
DCR (Max.)	50~625 mΩ

DIMENSIONS

L m/m	2.5 ± 0.20
W m/m	2.0 ± 0.30
H m/m	0.9 ± 0.10

TEST FREQUENCY

10 MHz

TEST EQUIPMENT

HP-4291A IMPEDANCE ANALYZER

ORDERING CODE :

BCCL - □□□□ **E1 -** □□□ □

(1) (2) (3) (4) (5)

(1) Product Code
(2) Size Code
(3) Material Code
(4) Inductance
(5) Tolerance
(M:±20%, N:±30%)

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Part Number	Inductance	L Test Freq.	DC Resistance		Min. Self-resonant Frequency	Saturation Current Typ.	Heat Rating Current Max.	Thickness
Units	μH	MHz	mΩ		MHz	mA	mA	mm [inch]
Symbol	L	Freq.	DCR Typ.	Max.	S.R.F	Isat	Irms	T
BCCL-2520E1-R47☐	0.47	1	40	70	105	1500	1800	0.9±0.1 [.035±.004]
BCCL-2520E1-1R0☐	1.0	1	60	75	70	1400	1600	
BCCL-2520E1-1R5☐	1.5	1	70	87	65	1200	1500	
BCCL-2520E1-2R2☐	2.2	1	80	100	55	850	1300	
BCCL-2520E1-3R3☐	3.3	1	100	125	30	450	1200	
BCCL-2520E1-4R7☐	4.7	1	110	137	25	320	1100	
BCCL-2520E1-2R2☐	2.2	1	200	250	60	1500	1200	
BCCL-2520E1-3R3☐	3.3	1	250	312	55	1200	1100	
BCCL-2520E1-4R7☐	4.7	1	380	475	35	750	900	
BCCL-2520E1-6R8☐	6.8	1	450	562	30	350	750	
BCCL-2520E1-100☐	10.0	1	500	625	25	250	700	

FINISHED PRODUCT INSPECTIONS

Inspection Item	Sampling Plan	AQL	Inspection Equipment
L/Z	MIL-STD-105E LII (Normal Inspection)	0.1	HP4291B
Q	MIL-STD-105E LII (Normal Inspection)	0.1	
DCR	MIL-STD-105E LII (Normal Inspection)	0.015	HP4338A/B
OPEN	Qty.×10%	C=	HP4338A/B
Dimension	n=20	C=	Calipers
Appearance	MIL-STD-105E LII (Normal Inspection)	0.1	Inspection Machine 8X/50X Magnifier 100X Microscope

TAPE & REEL INSPECTIONS

Inspection Item	Sampling Plan	AQL	Inspection Equipment
Peeling Force	One Reel Per Lot	C=0	Peeling Force Tester
Reel(Quantity)	Full Inspection	C=	Visual
P/N Label	Full Inspection	C=0	Visual

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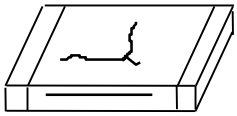
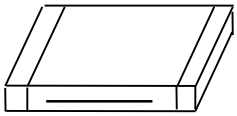
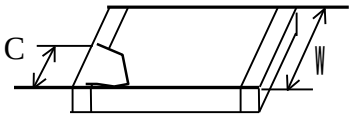
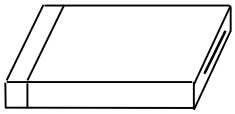
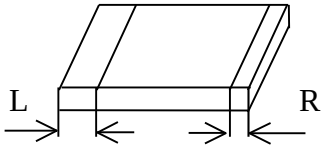
	Standard	Example
CRACK	NOT ALLOWED	
INTERAL ELECTRODE EXTRUSION	NOT ALLOWED	
CERAMIC EXTRUSION	MAX: C≤ W/4	
NO TERMINAL	NOT ALLOWED	
TWO SIDE DIFFERENCE	MAX: D≤0.13mm (D=L-R)	

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Packaging and Storage

1 Packaging

Tape Carrier Packaging:

Packaging code: T

a. Tape carrier packaging are specified in attached figure

b. Tape carrier packaging quantity please see the following table:

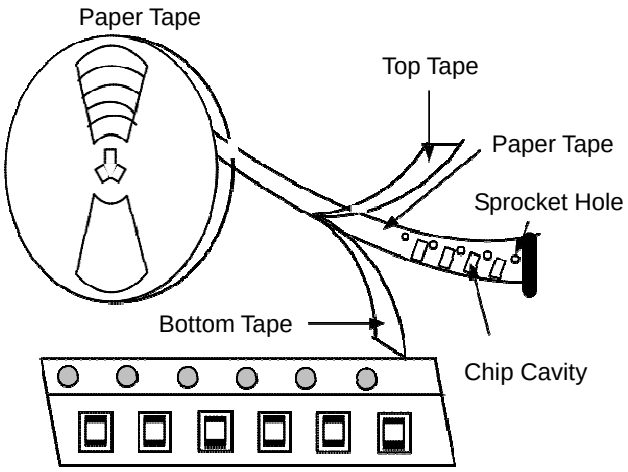
Type	1608[0603]		2012[0805]			2016[0806]	2520[1008]	
T(mm)	0.5±0.1	0.8±0.15	0.5±0.1	0.9±0.1	1.25±0.2	0.9±0.1	0.9±0.1	1.1±0.1
Tape	Paper Tape	Paper Tape	Paper Tape	Embossed Tape	Embossed Tape	Embossed Tape	Embossed Tape	Embossed Tape
Quantity	5K	4K	5K	3K	3K	3K	3K	3K

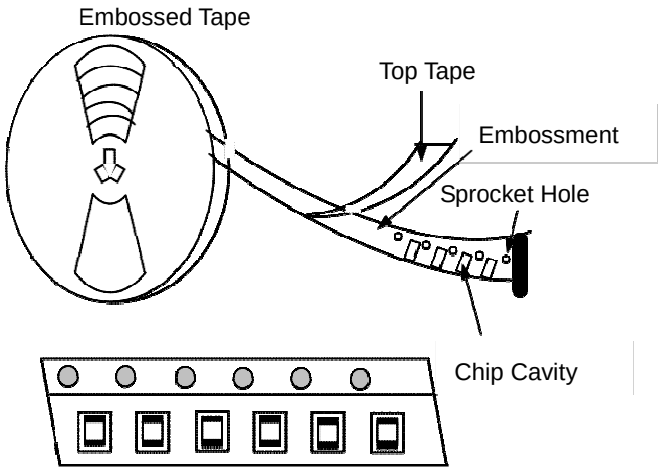
c. Reel shall be packaged in vinyl bag.

d. Maximum of 5 or 10 reels bags shall be packaged in an inner box.

e. Maximum of 6 or 10 inner boxes shall be packaged in an outer case.

(1) Taping Drawings (Unit: mm)





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Remark: The sprocket holes are to the right as the tape is pulled toward the user.

(2) Taping Dimensions (Unit: mm)

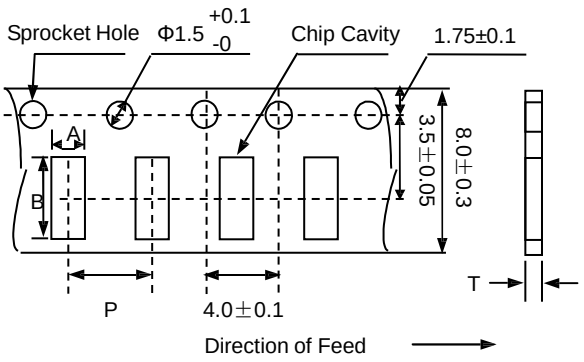

Fig 1-2

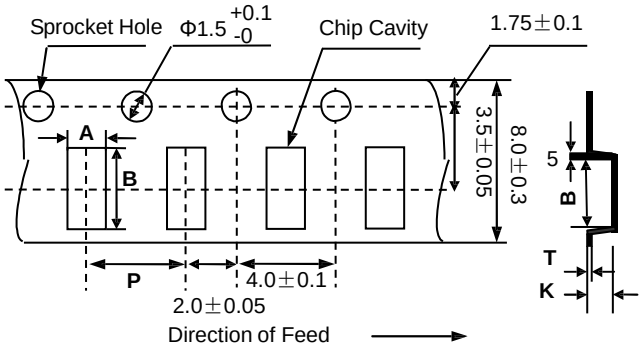

Fig. 1-3

(3) Reel Dimensions (Unit: mm)

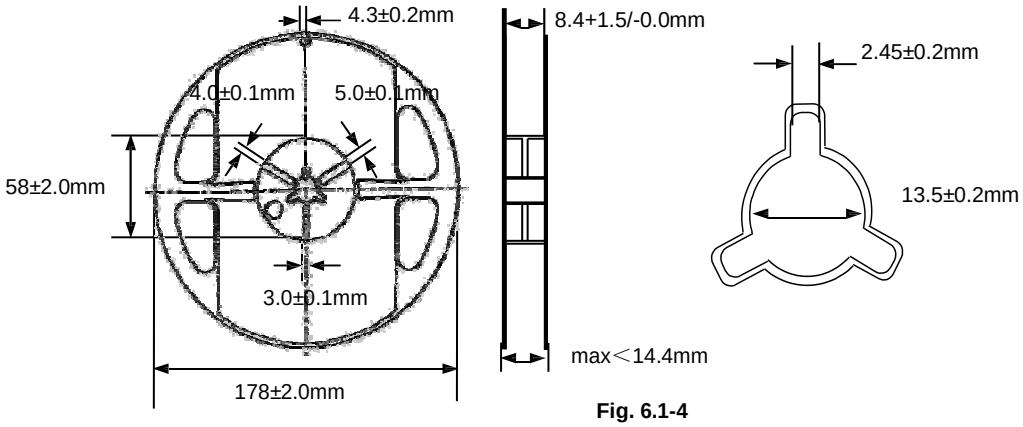

Fig. 6.1-4

Storage

a. The solderability of the external electrode may be deteriorated if packages are stored where they are exposed to high humidity. Package must be stored at 40℃ or less and 70% RH or less.

b. The solderability of the external electrode may be deteriorated if packages are stored where they are exposed to dust of harmful gas (e.g. HCl, sulfurous gas of H_2S).

c. Packaging material may be deformed if package are stored where they are exposed to heat of direct sunlight.

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RELIABILITY AND TEST CONDITION

Stress	Performance	Test Condition
Leaching	The chip should not crack ; More than 90% of the terminal electrode should be covered with solder , free from defects, chip body should not exposed.	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: M705-GRN360-K2-V Sn96.5/Ag3/Cu0.5 2.General:135/135/195/235℃ 3.100%TIN:155/155/220/265℃
Solderability 2	More than 90% of the termina electrode should be covered with new solder	1.Solder: Alpha Sn100 2.Solder Temp.:230 ±5℃ 3.Flux: Rosin 4.Dip time: 4±1 sec
Terminal Strength	The terminal electrode should not break off nor the ferrite damaged	100505>0.2kgt, 160808>0.3kgt, 201209>0.6kgt, 201212>0.6kgt, 321611>1.0kgt, 322513>1.0kgt, 451616>1.0kgt, 453215>1.5kgt, CBA3216>1.2kgt ; pulling time:30 ±5 sec
Bending Strength	The ferrite 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, CBA3216>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 ±5% of the initial value 3.Q value should be within ±30% of the initial value 4.Impedance value should be	1.Temperature:-40 ~ 85℃ For 30 minutes each 2.Cycle: 100 cycles 3.Measurement: At ambient temperature 24 hours After test completion

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	within ±20% of the initial value	
Temperature Cycling	1.No mechanical damage 2.Inductance should be within ±5% 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:-40~125 ℃ 2. Cycle: 100 cycles 3. Measurement: At ambient temperature 24 hours After test completion
Biased Humidity	1.No mechanical damage 2.Inductance should be within ±5% 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℃ 2.Humidity: 85 % RH 3.Applied current: Full rated current 4.Testing time: 1000 hrs 5. Measurement: At ambient temperature 24 hours After test completion
Rated Current	1.CB / CL / CLH product Surface temperature below room temperature plus 10 ℃ 2.High current DC power (ES) product surface temp. below room temperature plus 40 ℃	1.At ambient temperature & humidity 2.Testing time:5 minutes (under full rated current)