



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Chip Type Specialty Polymer Aluminum Electrolytic Capacitors (SP Cap)

Japan

Series: **CB**

■ Features

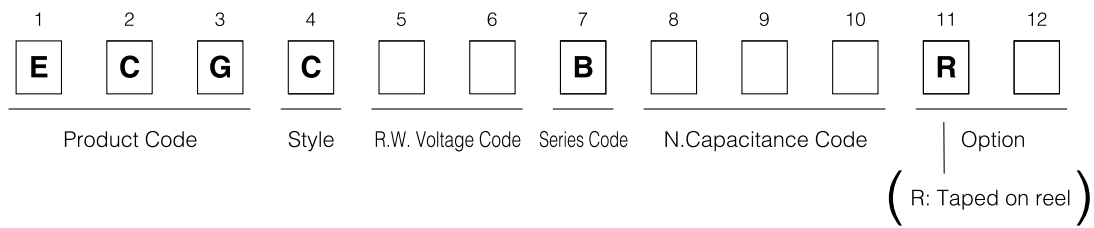
- Low impedance at high frequency (10 kHz to 10 MHz) as low as ceramic capacitors (Reduced ESR due to an applying speciality polymer with high conductivity.)
- Excellent Noise-absorbent Characteristics
- Surface Mount (Reflow soldering method available)
- Very stable capacitance, impedance and ESR against temperature
- Excellent endurance characteristics due to adoption of solid electrolyte
- 4-terminal-construction helps further low impedance.

■ Specifications

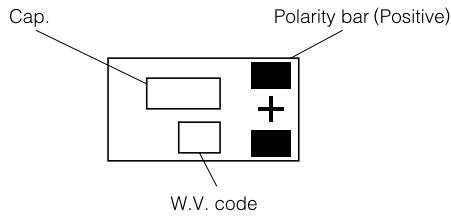
Operating Temp. Range	-40 to +105 °C						
Rated W.V. Range	4 to 16 V.DC						
Nominal Cap. Range	2.2 to 82 μF						
Capacitance Tolerance	±20 % (120 Hz/+20 °C)						
DC Leakage Current	$I \leq 0.04 CV$ or 3 (μA) after 2 minutes (Whichever is the greater) (4W.V.:0.06CV)						
Dissipation Factor	≤ 0.06 (120 Hz/+20°C)						
Surge Voltage	Rated Working Voltage × 1.25 (15 to 35 °C)						
Endurance	<p>After applying rated working voltage for 1000 hours at +105 °C, and then being stabilized at +20 °C, capacitor shall meet the following limits.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>±10 % of initial measured value</td> </tr> <tr> <td>D.F.</td> <td>≤ Initial specified value</td> </tr> <tr> <td>DC leakage current</td> <td>≤ Initial specified value</td> </tr> </table>	Capacitance change	±10 % of initial measured value	D.F.	≤ Initial specified value	DC leakage current	≤ Initial specified value
Capacitance change	±10 % of initial measured value						
D.F.	≤ Initial specified value						
DC leakage current	≤ Initial specified value						
Moisture Resistance	<p>After storing for 500 hours at +60 °C, 90 % R.H.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>+40 %, -20 % of initial measured value (4W.V.:+60 %, -20 % 6.3W.V.:+50 %, -20 %)</td> </tr> <tr> <td>D.F.</td> <td>≤ Initial specified value (4W.V., ECGC□□B□□□RA: ≤ 200 % of Initial specified value)</td> </tr> <tr> <td>DC leakage current</td> <td>≤ Initial specified value</td> </tr> </table>	Capacitance change	+40 %, -20 % of initial measured value (4W.V.:+60 %, -20 % 6.3W.V.:+50 %, -20 %)	D.F.	≤ Initial specified value (4W.V., ECGC□□B□□□RA: ≤ 200 % of Initial specified value)	DC leakage current	≤ Initial specified value
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D.F.	≤ Initial specified value (4W.V., ECGC□□B□□□RA: ≤ 200 % of Initial specified value)						
DC leakage current	≤ Initial specified value						
Permissible Current Between Terminals with Same Polarity	2 A DC max. (This shall be applicable only when each terminal is landed or the circuit individually).						

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■ Explanation of Part Numbers

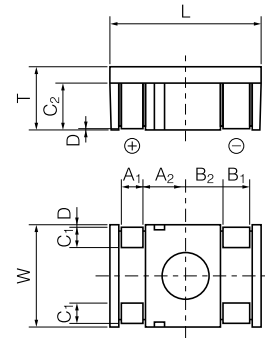


■ Marking



(V)	4	6.3	8	12.5	16
(W.V. code)	g	j	k	B	C

■ Dimensions in mm (not to scale)



Size code	L ±0.2	W ±0.1	T ±0.1	A ₁ ±0.1	A ₂ ±0.1
	7.9	5.3	3.3	1.2	2.2
Size code	B ₁ ±0.1	B ₂ ±0.1	C ₁ ±0.2	C ₂ ±0.1	D ±0.1
	1.5	1.9	1.2	2.4	0

■ Standard product

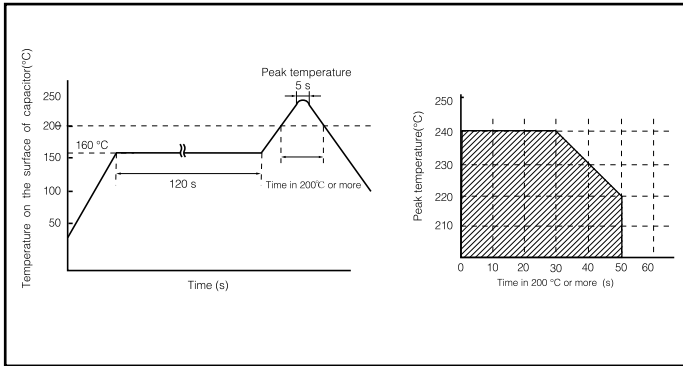
Rated W.V. (V.DC)	Capacitance (μF)	Part number	Impedance (Ω) (400 kHz/+20 °C)	Ripple current (A r.m.s.) (100 kHz/ +20 ~ +105 °C)
4(0G)	15 (150)	ECGC0GB150R	0.11	1.3
	33 (330)	ECGC0GB330R	0.06	1.6
	47 (470)	ECGC0GB470R	0.05	1.6
	68 (680)	ECGC0GB680R	0.04	1.6
	82 (820)	ECGC0GB820RA	0.04	1.6
6.3 (0J)	10 (100)	ECGC0JB100R	0.13	1
	22 (220)	ECGC0JB220R	0.09	1.3
	33 (330)	ECGC0JB330R	0.06	1.6
	47 (470)	ECGC0JB470R	0.05	1.6
	68 (680)	ECGC0JB680RA	0.04	1.6
8 (0K)	8.2 (8R2)	ECGC0KB8R2R	0.14	1
	15 (150)	ECGC0KB150R	0.11	1.3
	22 (220)	EEFCD0K220R	0.09	1.6
	33 (330)	ECGC0KB330R	0.06	1.6
	47 (470)	ECGC0KB470RA	0.05	1.6
12.5 (1B)	4.7 (4R7)	ECGC1BB4R7R	0.18	1
	10 (100)	ECGC1BB100R	0.13	1
	15 (150)	ECGC1BB150R	0.11	1.3
	22 (220)	ECGC1BB220R	0.09	1.6
	33 (330)	EEFCD1B330RA	0.06	1.6
16 (1C)	2.2 (2R2)	ECGC1CB2R2R	0.38	1
	4.7 (4R7)	ECGC1CB4R7R	0.18	1
	6.8 (6R8)	ECGC1CB6R8R	0.15	1
	10 (100)	ECGC1CB100R	0.13	1

() shows W.V. and capacitance code.

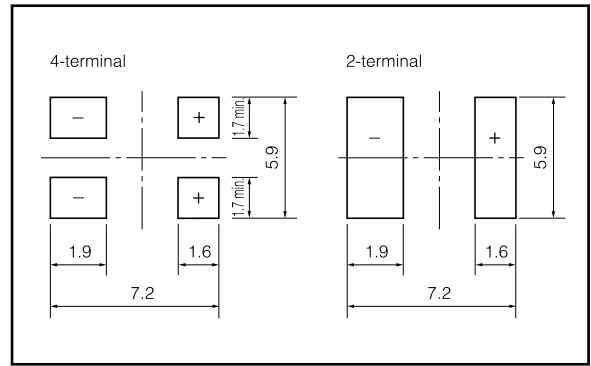
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■ Mounting Specifications.

- Recommendable reflow soldering temperature

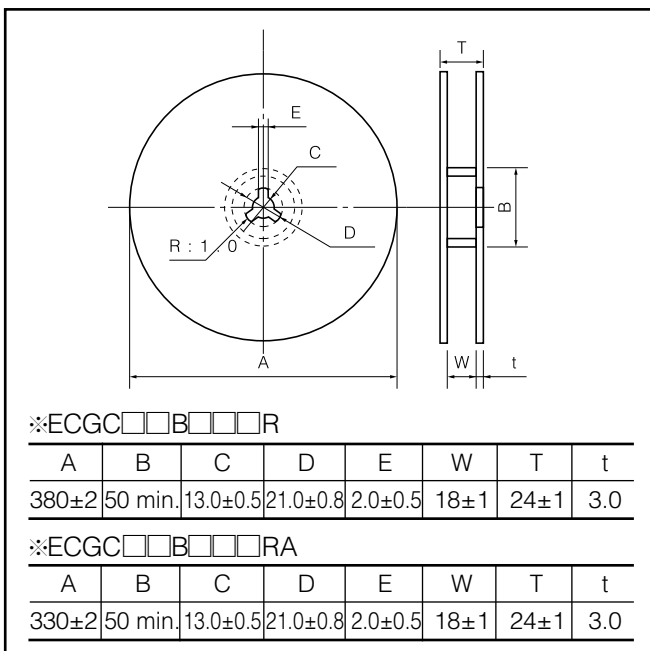


- Typical land pattern (mm)

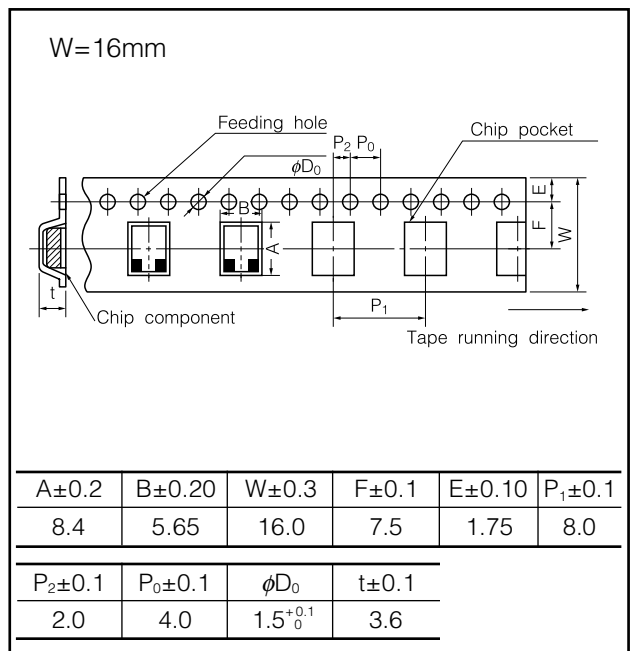


■ Packaging Specifications

- Reel Dimensions (mm)



- Embossed Taping (mm)



■ Packaging Quantity

※ECGC□□B□□□R

Embossed taping

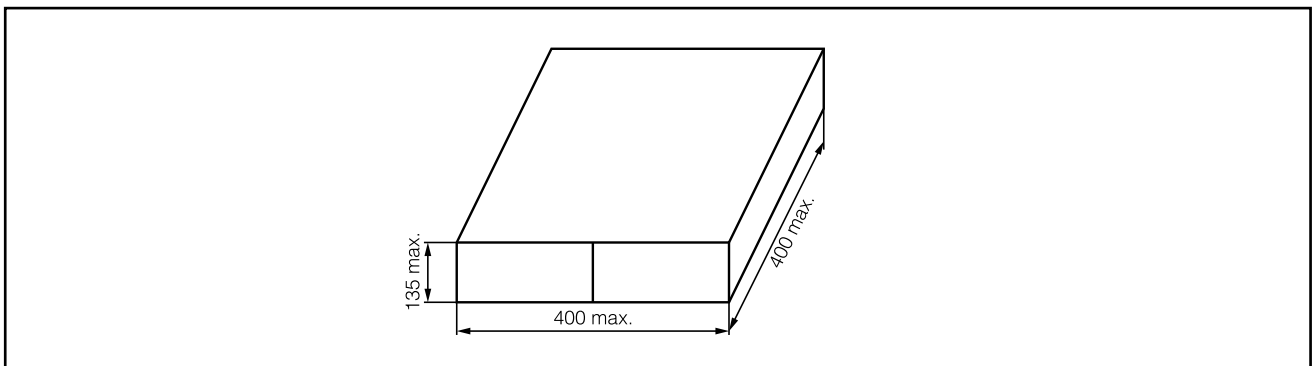
3000 pcs./reel, 15000 pcs./box

※ECGC□□B□□□RA

Embossed taping

2200 pcs./reel, 11000 pcs./box

■ Packaging Box Dimensions (mm)



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