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 ≦ 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	After applying rated working voltage for 1000 hours at +105 ˚C, and then being stabilized at +20 ˚C, capacitor shall meet the following limits. Capacitance change: ±10 % of initial measured value D.F.: ≦ Initial specified value DC leakage current: ≦ Initial specified value
Moisture Resistance	After storing for 500 hours at +60 ˚C, 90 % R.H. 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
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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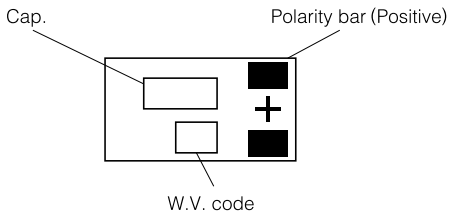
■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	C	G	C			B				R	

Product Code (1–3) | Style (4) | R.W. Voltage Code (5–6) | Series Code (7) | N.Capacitance Code (8–10) | Option (11–12)

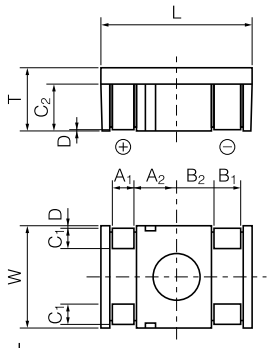
(R: Taped on reel)

■ 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

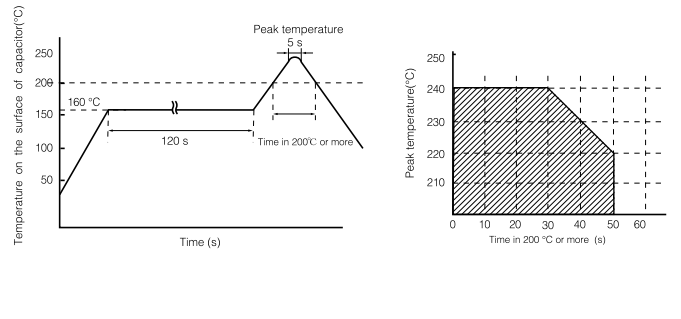
Rated W.V. (V.DC)	Capacitance (µF)	Part number	Impedance (Ω) (400 kHz/+20 ˚C)	Ripple current (A r.m.s.) (100 kHz/ +20 ~ +105 ˚C)
4(0G)	15 (150)	ECGC0GB150R	0.11	1.3
	33 (330)	ECGC0GB330R	0.06	1.6
	47 (470)	ECGC0GB470R	0.05	1.6
	68 (680)	ECGC0GB680R	0.04	1.6
	82 (820)	ECGC0GB820RA	0.04	1.6
6.3 (0J)	10 (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.

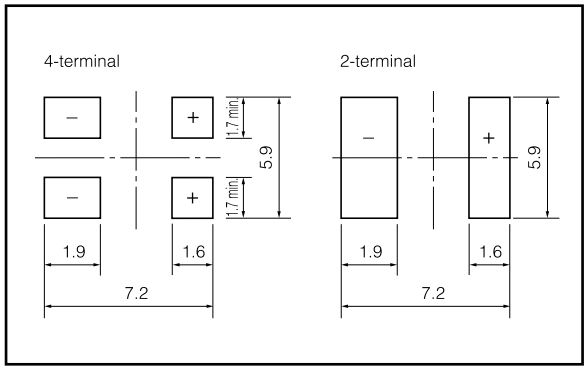
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■ Mounting Specifications.

● Recommendable reflow soldering temperature

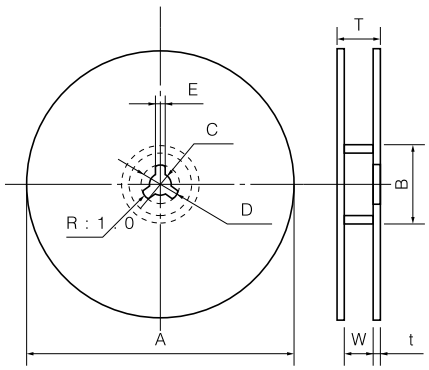


● Typical land pattern (mm)



■ Packaging Specifications

● Reel Dimensions (mm)



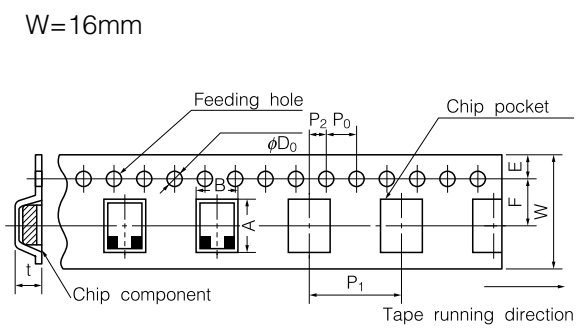
※ECGC□□B□□□R

A	B	C	D	E	W	T	t
380±2	50 min.	13.0±0.5	21.0±0.8	2.0±0.5	18±1	24±1	3.0

※ECGC□□B□□□RA

A	B	C	D	E	W	T	t
330±2	50 min.	13.0±0.5	21.0±0.8	2.0±0.5	18±1	24±1	3.0

● Embossed Taping (mm)



A±0.2	B±0.20	W±0.3	F±0.1	E±0.10	P_1±0.1
8.4	5.65	16.0	7.5	1.75	8.0

P_2±0.1	P_0±0.1	ϕD_0	t±0.1
2.0	4.0	$1.5^{+0.1}_{0}$	3.6

■ Packaging Quantity

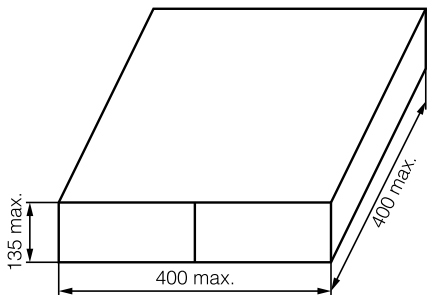
※ECGC□□B□□□R

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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