CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

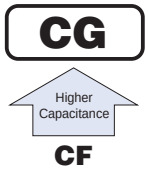
nichicon

CG Chip Type, Higher Capacitance series

For SMD | Low Impedance | For High Frequency | Anti-Solvent Feature

NEW

- Higher Capacitance, Low ESR, High ripple current.
- Load life of 2000 hours at 105°C.
- SMD type : Lead free reflow soldering condition at 260°C peak correspondence.
- Adapted to the RoHS directive (2002/95/EC).



■Specifications

Item	Performance Characteristics
Category Temperature Range	–55 to +105°C
Rated Voltage Range	2.5 to 16V
Rated Capacitance Range	47 to 3300μF
Capacitance Tolerance	± 20% at 120Hz, 20°C
tan δ	Not more than value of Standard ratings at 120Hz, 20°C
ESR (∗1)	Not more than value of Standard ratings at 100kHz, 20°C
Leakage Current (∗2)	Not more than value of Standard ratings. After 2 minute's application of rated voltage. 20°C
Characteristics of Temperature Impedance Ratio	Z+105°C / Z+20°C ≦1.25 (100kHz) Z-55°C / Z+20°C ≦1.25
Endurance	After 2000 hours' application of rated voltage at 105°C, capacitors meet the specified value for life characteristics listed at right.
Damp Heat	After 1000 hours' application of rated voltage at 60°C 90%RH, capacitors meet the specified value for life characteristics listed at right.
Resistance to Soldering Heat	To comply with recommended conditions for reflow soldering. Pre-heating shall be done at 150 to 200°C and for 60 to 180 sec. In the case of peak temp, less than 250°C, reflow soldering shall be within two times. In the case of peak temp, less than 260°C, reflow soldering shall be once. Measurement for solder temperature profile shall be made at the capacitor top and the terminal.
Marking	Navy blue print on the case top.

Endurance	
Capacitance change	Within ± 20% of initial value (∗3)
tan δ	150% or less of the initial specified value
ESR (∗1)	150% or less of the initial specified value
Leakage current (∗2)	Initial specified value or less

Damp Heat	
Capacitance change	Within ± 20% of initial value (∗3)
tan δ	150% or less of the initial specified value
ESR (∗1)	150% or less of the initial specified value
Leakage current (∗2)	Initial specified value or less

Resistance to Soldering Heat	
Capacitance change	Within ± 10% of initial value (∗3)
tan δ	130% or less of the initial specified value
ESR (∗1)	130% or less of the initial specified value
Leakage current (∗2)	Initial specified value or less

∗1 ESR measurements should be made at a point on the terminal nearest where the ternimals protrude through the plastic platform.

∗2 Conditioning : If there is doubt about the measured result, measurement should be made again after the rated voltage is applied for 120 minutes at the temperature of 105°C.

∗3 Initial value : The value before test of examination of resistance to soldering.

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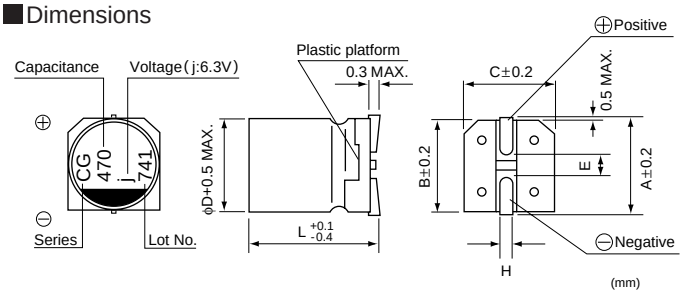
Dimensions



(mm)

Size	ϕ5 × 6L	ϕ6.3 × 6L	ϕ8 × 7L	ϕ10 × 8L	ϕ10 × 10L	ϕ10 × 12.7L
ϕD	5.0	6.3	8.0	10.0	10.0	10.0
L	5.9	5.9	6.9	7.9	9.9	12.6
A	6.0	7.3	9.0	11.0	11.0	11.0
B	5.3	6.6	8.3	10.3	10.3	10.3
C	5.3	6.6	8.3	10.3	10.3	10.3
E	1.2	2.1	3.2	4.6	4.6	4.6
H	0.5 ~ 0.8	0.5 ~ 0.8	0.8 ~ 1.1	0.8 ~ 1.1	0.8 ~ 1.1	0.8 ~ 1.1

Type numbering system (Example : 6.3V 470µF)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
P	C	G	0	J	4	7	1	M	C	L	1	G	S

- 14: Taping code
- 11–13: Configuration
- 9–10: Capacitance tolerance (±20%)
- 6–8: Rated Capacitance (470µF)
- 4–5: Rated voltage (6.3V)
- 3: Series name
- 1–2: Type

Voltage

V	2.5	4	6.3	10	16
Code	e	g	j	A	C

Standard ratings

Rated Voltage (V) Code	Surge Voltage (V)	Rated Capacitance (µF)	Case Size ϕD × L (mm)	tan δ	Leakage Current (µA)	ESR (mΩ) (20˚C / 100kHz)	Rated ripple (mArms) (105˚C / 100kHz)	Code
2.5 (0E)	2.8	220	5 × 6	0.12	110	30	2100	PCG0E221MCL1GS
		470	6.3 × 6	0.12	235	20	2900	PCG0E471MCL1GS
		560	6.3 × 6	0.12	280	20	3000	PCG0E561MCL1GS
		820	8 × 7	0.12	410	20	3300	PCG0E821MCL1GS
		1500	10 × 8	0.12	750	17	4100	PCG0E152MCL1GS
		2700	10 × 10	0.12	1350	12	4700	PCG0E272MCL1GS
		3300	10 × 12.7	0.12	1650	10	5500	PCG0E332MCL1GS
4 (0G)	4.6	180	5 × 6	0.12	144	32	1900	PCG0G181MCL1GS
		390	6.3 × 6	0.12	312	22	2700	PCG0G391MCL1GS
		680	8 × 7	0.12	544	21	3200	PCG0G681MCL1GS
		1200	10 × 8	0.12	960	17	4000	PCG0G122MCL1GS
		2200	10 × 10	0.12	1760	13	4600	PCG0G222MCL1GS
		2700	10 × 12.7	0.12	2160	11	5300	PCG0G272MCL1GS
6.3 (0J)	7.2	150	5 × 6	0.12	189	33	1800	PCG0J151MCL1GS
		270	6.3 × 6	0.12	340	23	2600	PCG0J271MCL1GS
		330	6.3 × 6	0.12	416	23	2700	PCG0J331MCL1GS
		470	8 × 7	0.12	592	22	3100	PCG0J471MCL1GS
		1000	10 × 8	0.12	1260	18	3800	PCG0J102MCL1GS
		1800	10 × 10	0.12	2268	14	4400	PCG0J182MCL1GS
		2200	10 × 12.7	0.12	2772	12	5000	PCG0J222MCL1GS
10 (1A)	11.5	82	5 × 6	0.12	164	35	1700	PCG1A820MCL1GS
		150	6.3 × 6	0.12	300	25	2500	PCG1A151MCL1GS
		330	8 × 7	0.12	660	23	3100	PCG1A331MCL1GS
		560	10 × 8	0.12	1120	20	3600	PCG1A561MCL1GS
		820	10 × 10	0.12	1640	15	4300	PCG1A821MCL1GS
		1000	10 × 12.7	0.12	2000	13	4800	PCG1A102MCL1GS
16 (1C)	18.4	47	5 × 6	0.12	150	40	1500	PCG1C470MCL1GS
		82	6.3 × 6	0.12	262	30	2300	PCG1C820MCL1GS
		150	8 × 7	0.12	480	28	2800	PCG1C151MCL1GS
		270	10 × 8	0.12	864	25	3300	PCG1C271MCL1GS
		470	10 × 10	0.12	1504	20	3700	PCG1C471MCL1GS
		680	10 × 12.7	0.12	2176	18	4100	PCG1C681MCL1GS

Design, Specifications are subject to change without notice.