

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

nichicon

CG series Chip Type, Higher Capacitance



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).

CG

Higher Capacitance
CF



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	$Z+105^{\circ}\text{C} / Z+20^{\circ}\text{C} \leq 1.25$ (100kHz) $Z-55^{\circ}\text{C} / Z+20^{\circ}\text{C} \leq 1.25$		
Endurance	After 2000 hours' application of rated voltage at 105°C, capacitors meet the specified value for life characteristics listed at right.	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	After 1000 hours' application of rated voltage at 60°C 90%RH, capacitors meet the specified value for life characteristics listed at right.	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	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.	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
Marking	Navy blue print on the case top.		

*1 ESR measurements should be made at a point on the terminal nearest where the terminals 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.

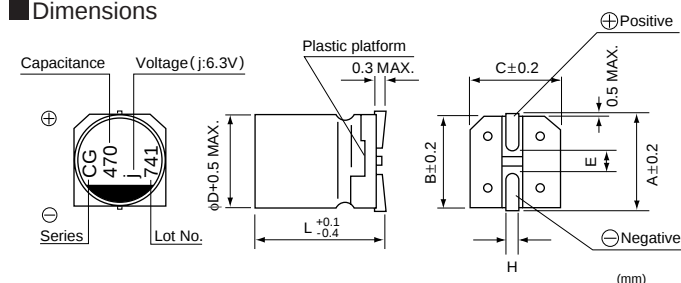
*3 Initial value : The value before test of examination of resistance to soldering.

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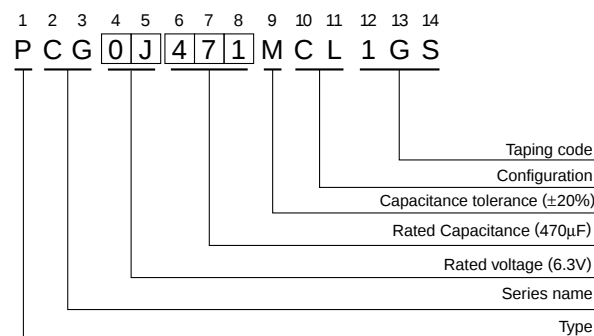
CG series

■ Dimensions



Size	$\phi 5 \times 6L$	$\phi 6.3 \times 6L$	$\phi 8 \times 7L$	$\phi 10 \times 8L$	$\phi 10 \times 10L$	$\phi 10 \times 12.7L$
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 470 μ F)



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 (μ F)	Case Size $\phi D \times L$ (mm)	$\tan \delta$	Leakage Current (μ A)	ESR (m Ω) (20°C / 100kHz)	Rated ripple (mA _{rms}) (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
4 (0G)	4.6	3300	10 × 12.7	0.12	1650	10	5500	PCG0E332MCL1GS
		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
6.3 (0J)	7.2	2700	10 × 12.7	0.12	2160	11	5300	PCG0G272MCL1GS
		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
10 (1A)	11.5	1800	10 × 10	0.12	2268	14	4400	PCG0J182MCL1GS
		2200	10 × 12.7	0.12	2772	12	5000	PCG0J222MCL1GS
		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
16 (1C)	18.4	820	10 × 10	0.12	1640	15	4300	PCG1A821MCL1GS
		1000	10 × 12.7	0.12	2000	13	4800	PCG1A102MCL1GS
		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.

NICHICON CORPORATION

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