

CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

nichicon



Higher Capacitance, Low ESR

series



For SMD



High Ripple Current



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).



CF



Specifications

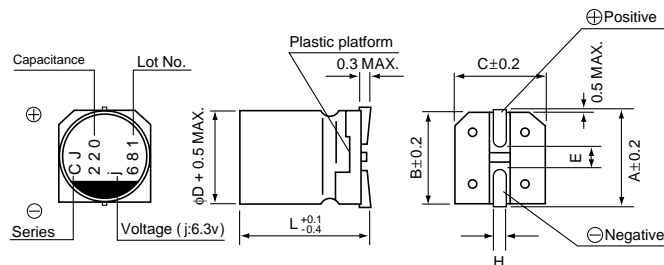
Item	Performance Characteristics		
Category Temperature Range	-55 to +105°C		
Rated Voltage Range	2.5 to 16V		
Rated Capacitance Range	33 to 2700µF		
Capacitance Tolerance	±20% at 120Hz, 20°C		
tan δ	Not more than value of Standard ratings at 120Hz, 20°C		
ESR (※ 1)	Not more than value of Standard ratings at 100kHz, 20°C		
Leakage Current (※ 2)	Not more than value of Standard ratings. After 2 minutes' 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. The duration for over +230°C temperature at capacitor surface shall not exceed 60 seconds. 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.

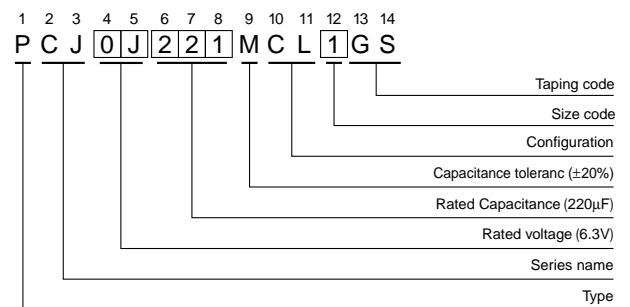
※ 2 Conditioning : If there is doubt about the measured result, measurement should be made again after the rated voltage is applied for 120 minutes at the temperature of 105°C.

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

Dimensions



Type numbering system (Example : 6.3V 220µF)



	(mm)									
Size	φ5 × 6L	φ6.3 × 6L	φ6.3 × 8L	φ8 × 7L	φ8 × 8L	φ8 × 10L	φ8 × 12L	φ10 × 8L	φ10 × 10L	φ10 × 12.7L
φD	5.0	6.3	6.3	8.0	8.0	8.0	8.0	10.0	10.0	10.0
L	5.9	5.9	7.9	6.9	7.9	9.9	11.9	7.9	9.9	12.6
A	6.0	7.3	7.3	9.0	9.0	9.0	9.0	11.0	11.0	11.0
B	5.3	6.6	6.6	8.3	8.3	8.3	8.3	10.3	10.3	10.3
C	5.3	6.6	6.6	8.3	8.3	8.3	8.3	10.3	10.3	10.3
E	1.4	2.1	2.1	3.2	3.2	3.2	3.2	4.6	4.6	4.6
H	0.5 to 0.8	0.5 to 0.8	0.5 to 0.8	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1	0.8 to 1.1

Voltage

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

● Dimension table in next page.

CAT.8100W



■ Standard ratings

Rated Voltage (V)(code)	Surge Voltage (V)	Rated Capacitance (μF)	Case Size φD × L (mm)	tan δ	Leakage Current (μA)	ESR (mΩ) (at 100kHz 20°C)	Rated ripple (mArms)	Part Number
2.5 (0E)	2.8	180	5 × 6	0.12	90	21	2500	PCJ0E181MCL1GS
		390	6.3 × 6	0.12	195	15	3400	PCJ0E391MCL1GS
		470	6.3 × 8	0.12	235	13	3600	PCJ0E471MCL1GS
		560	■ 6.3 × 8	0.12	280	13	3600	PCJ0E561MCL4GS
		560	8 × 7	0.12	280	13	4000	PCJ0E561MCL1GS
		680	8 × 7	0.12	340	13	4100	PCJ0E681MCL1GS
		820	▲ 8 × 8	0.12	410	12	4260	PCJ0E821MCL6GS
		820	8 × 12	0.12	410	9	5300	PCJ0E821MCL1GS
		1000	8 × 8	0.12	500	12	4260	PCJ0E102MCL1GS
		1200	10 × 8	0.12	600	13	4800	PCJ0E122MCL1GS
		1500	▲ 8 × 10	0.12	750	10	5220	PCJ0E152MCL6GS
		1500	8 × 12	0.12	750	9	5300	PCJ0E152MCL1GS
		2200	10 × 10	0.12	1100	10	5400	PCJ0E222MCL1GS
		2700	10 × 12.7	0.12	1350	9	5800	PCJ0E272MCL1GS
4 (0G)	4.6	100	5 × 6	0.12	80	22	2400	PCJ0G101MCL1GS
		150	5 × 6	0.12	120	22	2400	PCJ0G151MCL1GS
		270	6.3 × 6	0.12	216	15	3200	PCJ0G271MCL1GS
		330	6.3 × 6	0.12	264	15	3300	PCJ0G331MCL1GS
		390	6.3 × 8	0.12	312	14	3470	PCJ0G391MCL1GS
		470	8 × 7	0.12	376	14	3900	PCJ0G471MCL1GS
		560	8 × 7	0.12	448	14	4000	PCJ0G561MCL1GS
		560	● 8 × 12	0.12	448	9	5200	PCJ0G561MCL9GS
		680	8 × 8	0.12	544	13	3950	PCJ0G681MCL1GS
		1000	■ 8 × 10	0.12	800	10	5220	PCJ0G102MCL4GS
		1000	10 × 8	0.12	800	13	4300	PCJ0G102MCL1GS
		1200	8 × 12	0.12	960	9	5200	PCJ0G122MCL1GS
		1200	▲ 10 × 10	0.12	960	10	4900	PCJ0G122MCL6GS
		1500	■ 8 × 12	0.12	1200	9	5200	PCJ0G152MCL4GS
		1500	10 × 10	0.12	1200	10	5000	PCJ0G152MCL1GS
		1800	10 × 10	0.12	1440	10	5300	PCJ0G182MCL1GS
1800	● 10 × 12.7	0.12	1440	9	5600	PCJ0G182MCL9GS		
2200	10 × 12.7	0.12	1760	9	5700	PCJ0G222MCL1GS		
6.3 (0J)	7.2	100	5 × 6	0.12	126	24	2300	PCJ0J101MCL1GS
		120	5 × 6	0.12	151	24	2300	PCJ0J121MCL1GS
		220	6.3 × 6	0.12	277	15	3200	PCJ0J221MCL1GS
		270	6.3 × 8	0.12	340	14	3470	PCJ0J271MCL1GS
		330	■ 6.3 × 8	0.12	416	14	3470	PCJ0J331MCL4GS
		330	8 × 7	0.12	416	14	3800	PCJ0J331MCL1GS
		390	8 × 7	0.12	491	14	3900	PCJ0J391MCL1GS
		470	8 × 8	0.12	592	13	3950	PCJ0J471MCL1GS
		820	▲ 8 × 10	0.12	1033	12	4770	PCJ0J821MCL6GS
		820	■ 8 × 12	0.12	1033	10	5000	PCJ0J821MCL4GS
		820	10 × 8	0.12	1033	13	4500	PCJ0J821MCL1GS
		1200	10 × 10	0.12	1512	12	4700	PCJ0J122MCL1GS
		1500	10 × 10	0.12	1890	12	4800	PCJ0J152MCL1GS
		1500	● 10 × 12.7	0.12	1890	10	5200	PCJ0J152MCL9GS
		1800	10 × 12.7	0.12	2268	11	5200	PCJ0J182MCL1GS
		10 (1A)	11.5	47	5 × 6	0.12	94	28
56	5 × 6			0.12	112	28	2100	PCJ1A560MCL1GS
68	5 × 6			0.12	136	28	2100	PCJ1A680MCL1GS
120	6.3 × 6			0.12	240	25	2500	PCJ1A121MCL1GS
150	6.3 × 8			0.12	300	21	2880	PCJ1A151MCL1GS
220	8 × 7			0.12	440	21	3100	PCJ1A221MCL1GS
270	8 × 7			0.12	540	21	3200	PCJ1A271MCL1GS
330	8 × 8			0.12	660	19	3390	PCJ1A331MCL1GS
390	8 × 10			0.12	780	17	4000	PCJ1A391MCL1GS
470	10 × 8			0.12	940	19	3700	PCJ1A471MCL1GS
680	10 × 10			0.12	1360	13	4600	PCJ1A681MCL1GS
16 (1C)	18.4	33	5 × 6	0.12	105	35	1900	PCJ1C330MCL1GS
		39	5 × 6	0.12	124	35	1900	PCJ1C390MCL1GS
		68	6.3 × 6	0.12	217	28	2300	PCJ1C680MCL1GS
		82	6.3 × 8	0.12	262	24	2700	PCJ1C820MCL1GS
		100	■ 6.3 × 8	0.12	320	24	2700	PCJ1C101MCL4GS
		100	8 × 7	0.12	320	24	2900	PCJ1C101MCL1GS
		120	8 × 7	0.12	384	24	3000	PCJ1C121MCL1GS
		150	8 × 8	0.12	480	22	3150	PCJ1C151MCL1GS
		180	8 × 10	0.12	576	18	3890	PCJ1C181MCL1GS
		220	■ 8 × 10	0.12	704	18	3890	PCJ1C221MCL4GS
		220	10 × 8	0.12	704	22	3400	PCJ1C221MCL1GS
330	10 × 10	0.12	1056	16	4100	PCJ1C331MCL1GS		

Rated Ripple (mArms) at 105°C 100kHz

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.

- No marked, [1] will be put at 12th digit of type numbering system.
- ■ : In this case, [4] will be put at 12th digit of type numbering system.
- ▲ : In this case, [6] will be put at 12th digit of type numbering system.
- ● : In this case, [9] will be put at 12th digit of type numbering system.