CONDUCTIVE POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITORS

nichicon

CX Chip Type, High Voltage / Long Life series

For SMD | HR High Ripple Current | Z Low Impedance | F For High Frequency | L Long Life | Anti-Solvent Feature

- High reliability, High voltage (to 50V).
- Low ESR, High ripple current.
- Long life of 1500 to 3000 hours at 125°C.
- SMD type : Lead free reflow soldering condition at 260°C peak complete correspondence.
- Adapted to the RoHS directive (2002/95/EC).

CX

Higher Temperature

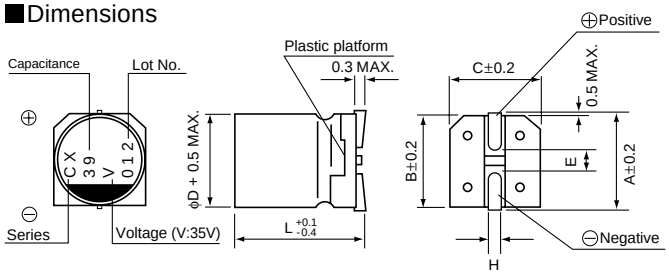
CV

■Specifications

Item	Performance Characteristics
Category Temperature Range	–55 to +125°C
Rated Voltage Range	16 to 50V
Rated Capacitance Range	5.6 to 390µF
Capacitance Tolerance	±20% at 120Hz, 20°C
Tangent of loss angle (tan δ)	Less than or equal to the specified value at 120Hz, 20°C
ESR (※ 1)	Less than or equal to the specified value at 100kHz, 20°C
Leakage Current (※ 2)	Less than or equal to the specified value . After 2 minutes' application of rated voltage at 20°C
Temperature Characteristics (Max.Impedance Ratio)	Z+125°C / Z+20°C ≦ 1.25 (100kHz) Z–55°C / Z+20°C ≦ 1.25
Endurance	The specifications listed at below shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 3000 hours (φD = 6.3:1500hours) at 125°C. Capacitance change: Within ± 20% of initial capacitance 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): Less than or equal to the initial specified value
Damp Heat (Steady State)	The specifications listed at below shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 1000 hours at 60°C, 90% RH. Capacitance change: Within ± 20% of initial capacitance 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): Less than or equal to the initial specified value
Resistance to Soldering Heat	After soldering the capacitor under the soldering conditions prescribed here, the capacitor shall meet the specifications listed at right, provided that it's temperature profile is measured at the capacitor top and the terminal. 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 two times maximum. 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 the initial capacitance value (※3) tan δ: 130% or less than the initial specified value ESR (※ 1): 130% or less than the initial specified value Leakage current (※2): Less than or equal to the initial specified value
Marking	Navy blue print on the case top

※ 1 ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.
※ 2 Conditioning : If any doubt arises, measure the leakage current after the voltage treatment of applying DC rated voltage continuously to the capacitor for 120 minutes at 105°C.
※ 3 Initial value : The value before test of examination of resistance to soldering.

■Dimensions



(mm)

Size	φ6.3×6L	φ8×7L	φ8×10L	φ8×12L	φ10×8L	φ10×10L	φ10×12.7L
φD	6.3	8.0	8.0	8.0	10.0	10.0	10.0
L	5.9	6.9	9.9	11.9	7.9	9.9	12.6
A	7.3	9.0	9.0	9.0	11.0	11.0	11.0
B	6.6	8.3	8.3	8.3	10.3	10.3	10.3
C	6.6	8.3	8.3	8.3	10.3	10.3	10.3
E	2.1	3.2	3.2	3.2	4.6	4.6	4.6
H	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

Voltage

V	16	20	25	35	50
Code	C	D	E	V	H

Type numbering system (Example : 35V 39µF)

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

- Taping code
- Size code
- Configuration
- Capacitance toleranc (±20%)
- Rated capacitance (39µF)
- Rated voltage (35V)
- Series name
- Type

● Dimension table in next page.

CX series

■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
							≦105℃ (*3)	105℃< ≦125℃ (*3)	
16 (1C)	18.4	47	6.3×6	0.12	150	55	1000	390	PCX1C470MCL1GS
		82	8×7	0.12	262	45	1300	530	PCX1C820MCL1GS
		150	▲ 8×10	0.12	480	28	2000	780	PCX1C151MCL6GS
		150	10×8	0.12	480	33	1900	830	PCX1C151MCL1GS
		220	8×12	0.12	704	27	2300	870	PCX1C221MCL1GS
		270	10×10	0.12	864	27	2300	830	PCX1C271MCL1GS
		390	10×12.7	0.12	1248	26	2700	1040	PCX1C391MCL1GS
20 (1D)	23.0	33	6.3×6	0.12	132	60	900	380	PCX1D330MCL1GS
		56	8×7	0.12	224	50	1300	500	PCX1D560MCL1GS
		120	▲ 8×10	0.12	480	29	1900	770	PCX1D121MCL6GS
		120	10×8	0.12	480	35	1800	810	PCX1D121MCL1GS
		150	8×12	0.12	600	28	2200	860	PCX1D151MCL1GS
		180	10×10	0.12	720	28	2300	800	PCX1D181MCL1GS
		270	10×12.7	0.12	1080	27	2700	1020	PCX1D271MCL1GS
25 (1E)	28.7	22	6.3×6	0.12	110	65	900	360	PCX1E220MCL1GS
		39	8×7	0.12	195	55	1200	480	PCX1E390MCL1GS
		82	▲ 8×10	0.12	410	30	1900	760	PCX1E820MCL6GS
		82	10×8	0.12	410	36	1800	800	PCX1E820MCL1GS
		120	▲ 8×12	0.12	600	29	2200	850	PCX1E121MCL6GS
		120	10×10	0.12	600	29	2200	790	PCX1E121MCL1GS
		180	10×12.7	0.12	900	28	2600	1010	PCX1E181MCL1GS
35 (1V)	40.2	10	6.3×6	0.12	70	85	800	310	PCX1V100MCL1GS
		18	8×7	0.12	126	60	1100	450	PCX1V180MCL1GS
		39	▲ 8×10	0.12	273	35	1800	700	PCX1V390MCL6GS
		39	10×8	0.12	273	41	1700	750	PCX1V390MCL1GS
		56	8×12	0.12	392	33	2000	780	PCX1V560MCL1GS
		68	10×10	0.12	476	30	2200	740	PCX1V680MCL1GS
		100	10×12.7	0.12	700	29	2600	990	PCX1V101MCL1GS
50 (1H)	57.5	5.6	6.3×6	0.12	56	105	700	280	PCX1H5R6MCL1GS
		10	8×7	0.12	100	75	1000	410	PCX1H100MCL1GS
		22	▲ 8×10	0.12	220	37	1700	680	PCX1H220MCL6GS
		22	10×8	0.12	220	56	1400	730	PCX1H220MCL1GS
		27	8×12	0.12	270	35	2000	760	PCX1H270MCL1GS
		33	10×10	0.12	330	31	2200	630	PCX1H330MCL1GS
		47	10×12.7	0.12	470	30	2500	970	PCX1H470MCL1GS

(*3) Ambient temperature of a capacitor

Rated ripple current (mArms) at 105°C 100kHz

No marked, 1 will be put at 12th digit of type numbering system.
▲: In this case, 6 will be put at 12th digit of type numbering system.

- 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.

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Данный компонент на территории Российской Федерации

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http://moschip.ru/get-element

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