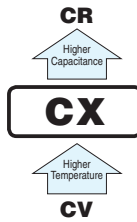


CX series Chip Type, High Voltage / Long Life



- 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 (2011/65/EU).



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		

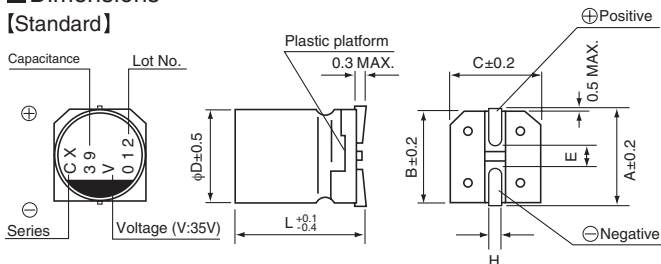
※ 1 ESR should be measured at both of the terminal ends closest where the terminals protrude through the plastic platform.

※ 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.

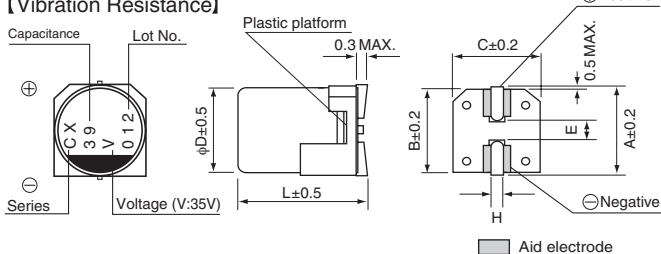
※ 3 Initial value : The value before test of examination of resistance to soldering.

Dimensions

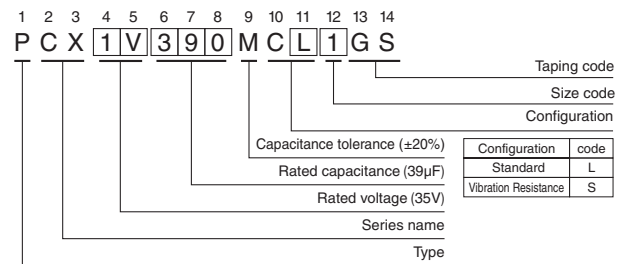
【Standard】



【Vibration Resistance】



Type numbering system (Example : 35V 39μF)



Standard

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

Vibration Resistance (mm)

	(mm)			
Size	φ6.3 x 8L	φ8 x 7.5L	φ8 x 10.5L	φ10 x 10.5L
φD	6.3	8.0	8.0	10.0
L	7.5	7.0	10.0	10.0
A	7.3	9.0	9.0	11.0
B	6.6	8.3	8.3	10.3
C	6.6	8.3	8.3	10.3
E	2.5	2.5	3.1	4.6
H	0.5 to 0.8	0.8 to 1.1	1.1 to 1.5	1.1 to 1.5

Voltage

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

● Dimension table in next page.



■ 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) ≤105°C (*3) 105°C < ≤125°C (*3)	Part Number
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
		82	8 × 7.5	0.12	262	45	1300 530	PCX1C820MCS1GS
		100	6.3 × 8	0.12	320	33	1500 460	PCX1C101MCL1GS
		100	6.3 × 8	0.12	320	33	1500 460	PCX1C101MCS1GS
		150	▲8 × 10	0.12	480	28	2000 780	PCX1C151MCL6GS
		150	8 × 10.5	0.12	480	28	2000 780	PCX1C151MCS1GS
		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
		270	10 × 10.5	0.12	864	27	2300 830	PCX1C271MCS1GS
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
		56	8 × 7.5	0.12	224	50	1300 500	PCX1D560MCS1GS
		68	6.3 × 8	0.12	272	34	1450 470	PCX1D680MCL1GS
		68	6.3 × 8	0.12	272	34	1450 470	PCX1D680MCS1GS
		120	▲8 × 10	0.12	480	29	1900 770	PCX1D121MCL6GS
		120	8 × 10.5	0.12	480	29	1900 770	PCX1D121MCS1GS
		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
		180	10 × 10.5	0.12	720	28	2300 800	PCX1D181MCS1GS
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
		39	8 × 7.5	0.12	195	55	1200 480	PCX1E390MCS1GS
		56	6.3 × 8	0.12	280	35	1400 450	PCX1E560MCL1GS
		56	6.3 × 8	0.12	280	35	1400 450	PCX1E560MCS1GS
		82	▲8 × 10	0.12	410	30	1900 760	PCX1E820MCL6GS
		82	8 × 10.5	0.12	410	30	1900 760	PCX1E820MCS1GS
		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
		120	10 × 10.5	0.12	600	29	2200 790	PCX1E121MCS1GS
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
		18	8 × 7.5	0.12	126	60	1100 450	PCX1V180MCS1GS
		27	6.3 × 8	0.12	189	45	1300 450	PCX1V270MCL1GS
		27	6.3 × 8	0.12	189	45	1300 450	PCX1V270MCS1GS
		39	▲8 × 10	0.12	273	35	1800 700	PCX1V390MCL6GS
		39	8 × 10.5	0.12	273	35	1800 700	PCX1V390MCS1GS
		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
		68	10 × 10.5	0.12	476	30	2200 740	PCX1V680MCS1GS
50 (1H)	57.5	100	10 × 10.5	0.12	700	25	2400 800	PCX1V101MCS1GS
		100	10 × 12.7	0.12	700	29	2600 990	PCX1V101MCL1GS
		5.6	6.3 × 6	0.12	56	105	700 280	PCX1H5R6MCL1GS
		10	8 × 7	0.12	100	75	1000 410	PCX1H100MCL1GS
		10	8 × 7.5	0.12	100	75	1000 410	PCX1H100MCS1GS
		12	6.3 × 8	0.12	120	65	1100 380	PCX1H120MCL1GS
		12	6.3 × 8	0.12	120	65	1100 380	PCX1H120MCS1GS
		22	▲8 × 10	0.12	220	37	1700 680	PCX1H220MCL6GS
		22	8 × 10.5	0.12	220	37	1700 680	PCX1H220MCS1GS
		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		
33	10 × 10.5	0.12	330	31	2200 630	PCX1H330MCS1GS		
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

- 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, [6] will be put at 12th digit of type numbering system.

CAT.8100D

Nichicon:

[PCX1C151MCL1GS](#) [PCX1C151MCL6GS](#) [PCX1C221MCL1GS](#) [PCX1C271MCL1GS](#) [PCX1C391MCL1GS](#)
[PCX1C470MCL1GS](#) [PCX1C820MCL1GS](#) [PCX1D121MCL1GS](#) [PCX1D121MCL6GS](#) [PCX1D151MCL1GS](#)
[PCX1D181MCL1GS](#) [PCX1D271MCL1GS](#) [PCX1D330MCL1GS](#) [PCX1D560MCL1GS](#) [PCX1E121MCL1GS](#)
[PCX1E121MCL6GS](#) [PCX1E181MCL1GS](#) [PCX1E220MCL1GS](#) [PCX1E390MCL1GS](#) [PCX1E820MCL1GS](#)
[PCX1E820MCL6GS](#) [PCX1H100MCL1GS](#) [PCX1H220MCL1GS](#) [PCX1H220MCL6GS](#) [PCX1H270MCL1GS](#)
[PCX1H330MCL1GS](#) [PCX1H470MCL1GS](#) [PCX1H5R6MCL1GS](#) [PCX1V100MCL1GS](#) [PCX1V101MCL1GS](#)
[PCX1V180MCL1GS](#) [PCX1V390MCL1GS](#) [PCX1V390MCL6GS](#) [PCX1V560MCL1GS](#) [PCX1V680MCL1GS](#)
[PCX1D121MCS1GS](#) [PCX1D680MCS1GS](#) [PCX1C271MCS1GS](#) [PCX1E121MCS1GS](#) [PCX1V101MCS1GS](#)
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[PCX1V680MCS1GS](#)