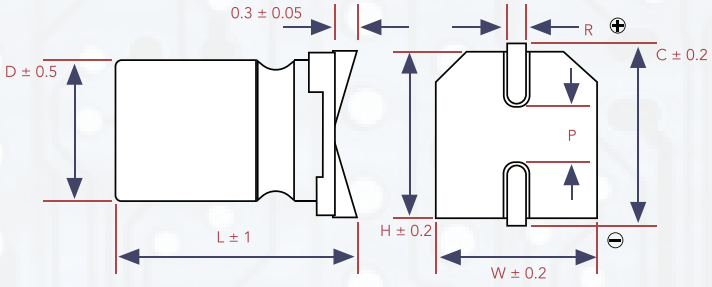
SMD POLYMER ALUMINUM SOLID ELECTROLYTIC CAPACITOR
- CCJ SERIES -

FEATURES

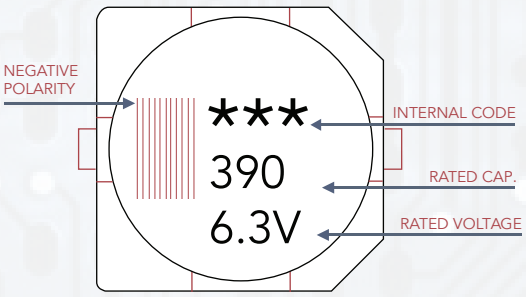
- Load Life of 2000 hour at 105°C
- Low ESR Series
- High Ripple Current, miniaturized
- SMD, lead free reflow soldering condition at 250°C peak correspondence

CONSTRUCTION AND DIMENSIONS



øD	W	H	C	R	P
5	5.3	5.3	5.9	0.5~0.8	1.4
6.3	6.5	6.5	7.2	0.5~0.8	2.2
8	8.3	8.3	9.0	0.7~1.1	3.1
10	10.3	10.3	11.0	0.7~1.1	4.5

MARKING



PART NUMBERING

CCJ	1C	101	M	5 x 8	—	R
SERIES NAME	RATED VOLTAGE	CAPACITANCE	TOLERANCE	CASE SIZE		PACKAGE TYPE

Series is represented by a three/four digit code

OE - 2.5V 1V - 35V
OG - 4V 1H - 50V
OJ - 6.3V 1J - 63V
1A - 10V 1K - 80V
1C - 16V 2A - 100V
1E - 25V

470 - 47µF
101 - 100µF
471 - 470µF
102 - 1000µF

3x5.3 8x7.0
4x5.3 8x10.0
4x5.7 8x12.0
5x5.3 10x7.7
5x5.7 10x8.0
6.3x5.3 10x9.9
6.3x5.7 10x10.0
6.3x5.9 10x12.7
6.3x6.0 10x13.0
6.3x7.0 12.5x13.5
6.3x7.7 12.5x16.0
8x6.5 16x16.5
8x6.7

R - Tape and reel

SPECIFICATIONS

ITEM	SPECIFICATION			
Category Temperature Range (°C)	-55°C ~ +105°C			
Rated Voltage Range (V)	6.3V ~ 100 V.DC			
Capacitance Tolerance (+20°C, 120Hz)	±20% - Less than or equal to the specified value. After 2 minutes application of rated Voltage at 20°C			
Leakage Current	2.5V ~ 25V		35V ~ 100V	
	I ≤ 0.2CV or 500 µA whichever is greater		I ≤ 0.1CV or 299 µA whichever is greater	
Dissipation Factor	RATED VOLTAGE (V)	2.5 V ~ 6.3V	10V ~ 100V	(20°C, 120Hz)
	TAN δ (MAX.)	0.08	0.12	
Low Temperature Characteristics (Max Impedance Ratio)	Z (-25°C) / Z(+20°C)	≤1.25	(100KHz)	
	Z (-55°C) / Z (+20°C)	≤1.25		

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SPECIFICATIONS

ITEM	SPECIFICATION	
Endurance	The specifications listed below shall be satisfied when the capacitors are restored at 20°C after application of rated voltage for 2000 hours at 105°C	
	Appearance	No significant damage
	Capacitance Change	≤ ±20% of the initial value
	D.F. (Tan δ)	≤ 150% of the specified value
	ESR	≤150% of the specified value
	Leakage Current	≤ The specified value
Damp Heat (Steady State)	The specifications listed below shall be satisfied when the capacitors are restored to 20°C after application of rated voltage for 1000 hours at 60*C, 90%~95% RH.	
	Appearance	No significant damage
	Capacitance Change	≤ ±20% of the initial value
	D.F. (Tan δ)	≤ 150% of the specified value
	ESR	≤150% of the specified value
	Leakage Current	≤ The specified value
Surge Voltage	Surge Voltage = Rated Voltage x 1.15 (V) The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltages specified at 105°C for 30 seconds through a protective resistor (Rc=1kΩ) and discharge for 5 minutes 30 seconds.	
	Appearance	No significant damage
	Capacitance Change	≤ ±20% of the initial value
	D.F. (Tan δ)	≤ 150% of the specified value
	ESR	≤150% of the specified value
	Leakage Current	≤ The specified value
Resistance to Soldering Heat	Measurement for solder temperature profile shall be made at the capacitor top and the terminal	
	Capacitance Change	Within ±10% of the initial value
	D.F. (Tan δ)	≤130% of the specified value
	ESR	≤130% of the specified value
	Leakage Current	≤ The specified value

RATED RIPPLE CURRENT COEFFICIENT

FREQUENCY (Hz)	120Hz ≤ f < 1KHz	1KHz ≤ f < 10KHz	10KHz ≤ f < 100KHz	100KHz ≤ f < 500KHz
COEFFICIENT	0.05	0.30	0.70	1.00

STANDARD RATINGS

RATED VOLTAGE (V)	RATED CAPACITANCE (µF)	CASE SIZE ØDxL (mm)	ESR (mΩ) at 20°C, 100KHz	LEAKAGE CURRENT (µA)	RATED RIPPLE CURRENT (mArms / 105°C / 100kHz)
6.3	220	5 x 7	35	500	3100
	330	5 x 7	35	500	3100
		6.3 x 9	35	500	3500
	390	5 x 10	35	500	3500
	470	6.3 x 7.4	35	592	3800
	560	6.3 x 9	35	706	3800
	680	6.3 x 9	25	857	4300
	820	6.3 x 9	25	1033	4800
	1000	6.3 x 12	25	1260	4800
		8 x 12	25	1260	5100
	1200	8 x 12	25	1512	5100
	1500	8 x 12	25	1890	5100
	2200	10 x 13	25	2772	5500
10	100	5 x 8	35	500	2350
	220	6.3 x 9	35	500	2900
	330	6.3 x 9	35	660	3600
	470	6.3 x 9	35	940	3600
	560	6.3 x 9	35	1120	3600
	680	8 x 12	25	1360	4200
	820	8 x 12	25	1640	4500
	1000	8 x 12	25	2000	4500
		10 x 13	25	2000	4500
	1500	8 x 12	25	3000	4800
		10 x 13	25	3000	4800

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STANDARD RATINGS

RATED VOLTAGE (V)	RATED CAPACITANCE (µF)	CASE SIZE ØDxL (mm)	ESR (mΩ) at 20°C, 100KHz	LEAKAGE CURRENT (µA)	RATED RIPPLE CURRENT (mArms / 105°C / 100kHz)
16	100	5 x 8	50	500	2100
		6.3 x 9	40	500	2690
	220	8 x 8	40	704	2900
		6.3 x 9	40	704	2690
	270	6.3 x 9	40	864	2690
		8 x 8	40	864	2900
	330	6.3 x 9	40	1056	2690
	470	8 x 9	30	1504	3500
		6.3 x 12	30	1054	3500
	560	8 x 12	30	1792	3500
	680	8 x 12	30	2176	3900
	820	8 x 12	30	2624	3900
		10 x 13	30	2624	4100
	1000	8 x 12	30	3200	3900
		10 x 13	30	3200	4100
	1200	10 x 13	30	3200	4100
	1500	10 x 13	30	4800	4500
20	100	6.3 x 9	50	500	2100
	220	6.3 x 9	50	880	2690
		8 x 10	45	880	2900
	560	8 x 12	40	2240	3500
		10 x 13	40	2240	3500
25	100	6.3 x 7.4	50	500	2100
	150	6.3 x 9	50	750	2690
	220	6.3 x 9	50	1100	2500
	270	6.3 x 12	50	1350	2900
		8 x 12	50	1350	3100
	330	8 x 10	45	1650	3500
		6.3 x 12	45	1650	3500
		8 x 12	45	1650	3500
	470	8 x 12	45	2350	3100
		10 x 13	45	2350	3500
	560	8 x 12	45	2800	3500
	680	8 x 12	45	3400	3800
	820	10 x 13	40	4100	4100
	1000	10 x 13	40	5000	4100
30	470	8 x 12	45	2820	3100
	680	10 x 13.5	40	4080	4100
35	47	6.3 x 7.4	80	299	1410
	68	6.3 x 9	80	299	1410
	100	6.3 x 9	80	350	1690
		8 x 10	55	350	1900
		8 x 12	55	350	2690
	150	6.3 x 12	70	525	2350
	220	8 x 12	55	770	3100
	330	10 x 13	50	1155	3500
	470	10 x 13	50	1645	4100
50	22	5 x 8	100	299	800
		6.3 x 9	100	299	850
	68	8 x 10	60	340	1500
	100	8 x 12	60	500	1500
		10 x 13	55	500	2100
	220	10 x 13	55	1100	2100
63	33	8 x 12	60	299	1300
	47	8 x 10	60	299	1300
		8 x 12	60	299	1300
	56	8 x 10	60	353	1300
	100	8 x 12	60	630	1800
		10 x 13	55	630	2100
	220	10 x 13	55	1386	2690
100	10	8 x 10	90	299	850
	22	8 x 12	60	299	1550
	68	10x13	60	680	1780

NOTE: Reflow soldering can only be used for SMD Conductive Polymer Aluminum Solid Electrolytic Capacitor.
Radial Conductive Polymer Aluminum Solid Electrolytic Capacitor are not suitable for reflow soldering, but only for wave soldering.