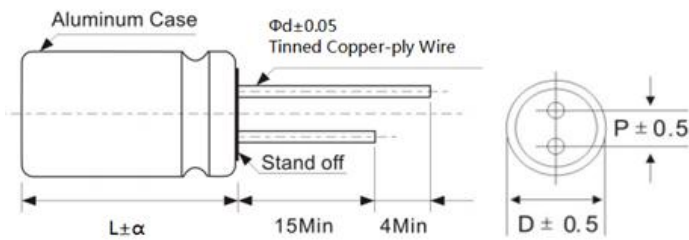


FEATURES

- Super low ESR, high ripple current
- Load life of 2000 hours at 105°C, Standard



DIMENSIONS (mm)



ΦD	5	6.3	8	10
P	2.0	2.5	3.5	5.0
Φd	0.5	0.6	0.6	0.6

α	(L < 16) 1.0
	(16 ≤ L < 22) 1.5
	(L ≥ 22) 2.0

SPECIFICATIONS

Category Temperature Range (°C)	-55°C ~ +105°C										
Rated Voltage Range	2.5 ~ 25V										
Capacitance Tolerance (20°C, 120Hz)	±20%										
Leakage Current	I ≤ 0.2CV or 500μA whichever is greater Less than or equal to the specified value. After 2 minutes application of rated Voltage at 20°C										
Dissipation Factor (20°C, 120Hz)	Rated Voltage(V)	2.5	4	6.3	6.8	7.5	10	12	16	20	25
	Tanδ(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									
Endurance	The specifications listed below shall be satisfied when the capacitors are restored to 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.(tanδ)	≤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.(tanδ)	≤150% of the specified value									
	ESR	≤150% of the specified value									
	Leakage current	≤The specified value									
Surge Voltage	Surge Voltage = Rated voltage × 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.(tanδ)	≤150% of the specified value									
	ESR	≤150% 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	Rated Capacitance (μF)	Case Size ΦDxL (mm)	ESR (mΩ) at 20°C, 100 KHz	Leakage Current (μA)	Rated Ripple Current (mA rms/105°C/100kHz)
2.5	560	5x8	12	500	4100
		6.3x8	8	500	5100
	680	6.3x8	8	500	5100
		8x9	8	500	5900
	820	6.3x8	8	500	5200
		8x9	8	500	5900
	1000	8x9	8	500	5900
8x12		8	500	6100	
1200	8x9	8	600	5900	
	8x12	8	600	6100	
1500	8x12	8	750	6100	
	560	6.3x8	15	500	3100
680		8x9	12	500	5100
	820	6.3x8	15	544	3500
1000		8x9	12	544	5100
	1200	6.3x9	15	656	4100
1500		8x9	12	656	5100
	220	6.3x12	15	800	4100
270		8x9	12	800	5100
	330	6.3x12	15	960	4500
390		8x9	12	960	5100
	470	6.3x12	15	960	5100
560		8x9	12	960	5100
	680	6.3x8.5	10	500	4450
820		5x9.5	12	500	4510
	1000	6.3x8	10	500	4800
1200		5x9.5	12	592	4510
	1500	6.3x8.5	8	592	4900
2200		6.3x8.5	8	706	5100
	270	8x9.5	8	706	5900
330		6.3x8.5	8	857	5100
	390	8x9	8	857	5900
470		6.3x9.5	8	1033	5200
	560	6.3x11.5	8	1033	5500
680		8x9.5	8	1033	5900
	820	6.3x11.5	8	1260	5500
1000		8x9.5	8	1260	5900
	1200	8x12	8	1260	6100
1500		8x9	8	1512	5900
	2200	8x12	8	1512	6100
270		8x12	8	1890	6100
	330	10x12.5	8	1890	6200
390		10x12.5	8	2772	6200
	470	5x8	12	500	3630
560		6.3x8	10	500	4100
	680	6.3x8	10	585	4100
820		6.3x8	10	705	4100
	1000	6.3x8	10	840	4500
1200		6.3x12	10	1020	4500
	1500	8x9	8	1020	4800
2200		6.3x12	10	1230	4500
	270	8x9	8	1230	4800
330		8x9	8	1500	4800
	390	8x12	8	1500	5100
470		8x12	8	1800	5100
	560	10x12.5	8	1800	5500
680		10x12.5	8	2250	5500
	820	5x8	15	500	3100
1000		6.3x8	12	500	3500
	1200	6.3x8	12	540	3500
1500		6.3x8	12	660	3750
	2200	8x9	10	660	3800
270		6.3x8	12	780	3750
	330	6.3x12	12	780	3900
390		6.3x8	12	940	3850
	470	8x9	10	940	3950

STANDARD RATINGS

Rated Voltage	Rated Capacitance (μF)	Case Size ΦDxL (mm)	ESR (mΩ) at 20°C, 100 KHz	Leakage Current (μA)	Rated Ripple Current (mArms/105°C/100kHz)
12	220	5x9	15	528	2690
		6.3x8	13	528	2900
	270	6.3x8	13	648	2900
		5x9.5	7	396	4800
	330	6.3x8	13	792	2900
		6.3x8	13	936	2900
	470	6.3x12	13	1128	3500
		8x9	12	1128	3800
	560	6.3x12	13	1344	3500
		8x9	12	1344	3800
	680	6.3x8.5	7	816	5100
		8x9	12	1632	3800
820	8x12	11	1968	4100	
	8x12	11	2400	4100	
1000	10x12.5	10	2400	4800	
	10x12.5	10	2880	4800	
1500	10x12.5	10	3600	4800	
	100	5x7.5	15	500	2100
150		5x8	15	500	2100
	180	6.3x8	13	500	2900
180		5x9	15	576	2690
	220	6.3x8	13	576	2900
220		6.3x8.5	13	704	2900
	220	6.3x12	13	704	3500
220		8x9	12	704	3500
	270	6.3x8.5	13	864	2900
270		8x9	12	864	3500
	270	8x12	11	864	3790
330		6.3x8.5	13	1056	2900
	330	6.3x11.5	13	1056	3500
330		8x9	12	1056	3500
	470	6.3x11.5	13	1504	3500
470		8x9.5	12	1504	3500
	470	8x12	7	752	5100
560		6.3x12	13	1792	3500
	560	8x12	12	1792	3500
680		8x12	11	2176	4800
	820	8x12	11	2624	4800
1000		10x12	10	3200	5100
	25	68	6.3x8	25	500
8x9			20	500	2690
82		6.3x8	25	500	2100
		8x9	20	500	2690
100		6.3x8.5	25	500	2100
		8x9	18	500	2690
100		8x12	18	500	2900
		8x9	18	750	2690
150		8x12	18	750	2900
		8x12	18	900	2900
220		8x12	18	1100	2900
		10x12.5	15	1350	3500
330	10x12.5	15	1650	3500	
	10x12	15	2350	3500	
35	100	6.3x8.5	10	350	2900
	470	10x12	10	1645	4900

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.

HOW TO ORDER

WPB	0J	0R1	M	050095	020	000	B	R
Series	Rated Voltage	Capacitance	Capacitance Tolerance	Dimension	Pitch/Pins	Lead Length	Packing	Pb
	1.	2.	3.	4.	5.	6.	7.	8.

1. Rated Voltage

Code	0J	1A	1C	1D	1E	1V	1G	1H
Voltage	6.3V	10V	16V	20V	25V	35V	40V	50V

2. Capacitance

Code	0R1	R22	R33	R47	010	2R2	3R3	4R7	100	220	330	470	101
Capacitance (μF)	0.1	0.22	0.33	0.47	1	2.2	3.3	4.7	10	22	33	47	100

3. Capacitance Tolerance

Code	K	L	M
Tolerance	±10%	±15%	±20%

4. Dimension

Code	050095	063085	100120
Dimension (mm)	5x9.5	6.3x8.5	10x12

5. Pitch

Code	020	025	035	050	075	100
Pitch (mm)	2.0	2.5	3.5	5.0	7.5	10.0

6. Lead Length

Code	000	040	045	050
Lead Length	Standard	4.0	4.5	5.0

7. Packing

Code	A	B
Packing	Ammo	Bulk

8. Pb

Code	R
Pb	RoHS

