

Kingtronics®

GKT-AK

Polymer Aluminum Solid Electrolytic Capacitor

FEATURES

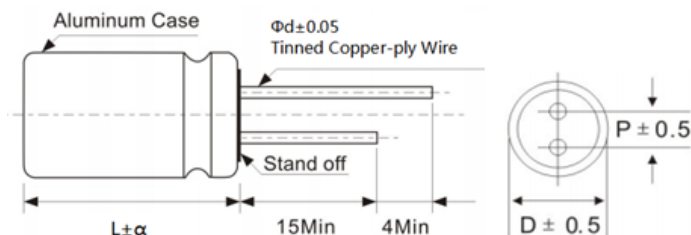
- ◆ Low ESR, high ripple current, long life
- ◆ Endurance:5000 hours at 105°C



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)			Z(-55°C)/Z(+20°C)			≤ 1.25			≤ 1.25		(100KHz)
Endurance	The specifications listed below shall be satisfied when the capacitors are restored to 20°C after application of rated voltage for 5000 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											

DIMENSIONS (mm)



ΦD	5	5.5	6.3	8	10
P	2.0	2.5	2.5	3.5	5.0
Φd	0.5	0.5	0.6	0.6	0.6

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

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RATED RIPPLE CURRENT COEFFICIENT

Frequency(Hz)	120Hz \cong f < 1kHz	1kHz \cong f < 10kHz	10kHz \cong f < 100kHz	100kHz \cong f < 500kHz
Coefficient	0.05	0.30	0.70	1.00

STANDARD RATINGS

Rated Voltage	Rated Capacitance (μ F)	Case Size Φ DxL (mm)	ESR (m Ω) at 20 $^{\circ}$ C, 100 KHz	Leakage Current (μ A)	Rated Ripple Current (mArms/105 $^{\circ}$ C/100kHz)
2.5	560	5x8	15	500	2900
		6.3x8	15	500	3500
	680	6.3x8	15	500	3500
		8x9	12	500	5200
	820	6.3x8	15	500	3500
		8x9	12	500	5200
	1000	8x9	12	500	5500
8x12		12	500	5500	
1200	8x9	12	600	5500	
	8x12	12	600	5500	
1500	8x12	12	750	5500	
	4	560	6.3x8	15	500
8x9			12	500	5100
680		6.3x8	15	544	3500
		8x9	12	544	5100
820		6.3x9	15	656	4100
		8x9	12	656	5100
1000		6.3x12	15	800	4100
	8x9	12	800	5100	
1200	6.3x12	15	960	4500	
	8x9	12	960	5100	
6.3	220	5x8	18	500	2690
	270	5x8	18	500	2690
	330	5x8	18	500	2690
		6.3x8	15	500	3100
	390	5x9	16	500	3100
		6.3x8	15	500	3100
	470	5x9	16	592	3300
		6.3x8	15	592	4100
	560	6.3x8	15	706	4100
		8x9	12	706	5100
	680	6.3x8	15	857	4100
		8x9	12	857	5100
	820	6.3x9	15	1033	4500
		6.3x12	15	1033	4800
		8x9	12	1033	5100
	1000	6.3x12	14	1260	4800
8x9		12	1260	5100	
8x12		12	1260	5500	
1200	8x9	12	1512	5100	
	8x12	12	1512	5500	
1500	8x12	12	1890	5500	
	10x12.5	12	1890	5900	
2200	10x12.5	12	2772	5900	

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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)
7.5	270	5x8	18	500	2690
	330	6.3x8	16	500	3100
	390	6.3x8	16	585	3500
	470	6.3x8	16	705	3500
	560	6.3x8	16	840	3500
	680	6.3x12	16	1020	3800
		8x9	12	1020	4800
	820	6.3x12	16	1230	3800
		8x9	12	1230	4800
	1000	8x9	12	1500	4800
		8x12	12	1500	5100
	1200	8x12	12	1800	5100
10x12.5		12	1800	5500	
1500	10x12.5	12	2250	5500	
10	220	5x8	20	500	2200
		6.3x8	16	500	2900
	270	6.3x8	16	540	2900
	330	6.3x8	16	660	3100
		8x9	14	660	4800
	390	6.3x8	16	780	3100
		6.3x12	16	780	3500
	470	6.3x8	16	940	3100
		8x9	14	940	4800
	560	6.3x12	16	1120	3500
		8x9	14	1120	4800
	680	6.3x12	16	1360	3500
		8x9	14	1360	4800
	820	8x9	14	1640	4800
		8x12	14	1640	5100
	1000	8x12	14	2000	5100
10x12.5		14	2000	5500	
1200	10x12.5	14	2400	5500	
1500	10x12.5	14	3000	5500	
12	220	5x9	20	528	2690
		6.3x8	18	528	3160
	270	6.3x8	18	648	3160
	330	6.3x8	18	792	3200
	390	6.3x8	18	936	3200
	470	6.3x12	18	1128	3500
		8x9	15	1128	4100
	560	6.3x12	18	1344	3500
		8x9	15	1344	4100
	680	8x9	15	1632	4100
	820	8x12	15	1968	4500
	1000	8x12	15	2400	4500
		10x12.5	12	2400	5200
	1200	10x12.5	12	2880	5200
	1500	10x12.5	12	3600	5200

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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)
16	100	5x8	25	500	2100
	150	5x8	25	500	2100
		6.3x8	20	500	2690
	180	5x9	22	576	2690
		6.3x8	20	576	2900
	220	6.3x8	18	704	3100
		6.3x12	18	704	3500
		8x9	15	704	4100
	270	6.3x8	18	864	3100
		8x9	15	864	4100
		8x12	15	864	4500
	330	6.3x8	18	1056	3100
		6.3x12	18	1056	4100
		8x9	15	1056	4100
	470	6.3x12	18	1504	3500
		8x9	15	1504	4100
560	6.3x12	18	1792	3500	
	8x9	15	1792	4100	
680	8x12	15	2176	4500	
820	8x12	15	2624	4500	
1000	10x12.5	14	3200	5200	
25	68	6.3x8	40	500	2100
		8x9	25	500	3500
	82	6.3x8	40	500	2150
		8x9	30	500	3800
	100	6.3x8	40	500	2200
		8x9	30	500	3900
		8x12	25	500	4200
	150	8x9	30	750	3900
		8x12	25	750	4200
	180	8x12	25	900	4200
	220	8x12	25	1100	4200
	270	10x12.5	20	1350	4800
330	10x12.5	20	1650	4800	
470	10x12.5	20	2350	4800	

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.

Note: Specification are subject to change without notice. For more detail and update, please visit our website.

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HOW TO ORDER

<u>GKT</u>	<u>AK</u>	<u>0J</u>	<u>0R1</u>	<u>M</u>	<u>00500095</u>	<u>020</u>	<u>000</u>	<u>B</u>	<u>R</u>
Series	Sub Series	Rated Voltage	Capacitance	Capacitance Tolerance	Dimension	Pitch/Pins	Lead Length	Packing	Pb
		1.	2.	3.	4.	5.	6.	7.	8.

NOTE:

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	00500095	00630085	01000120
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	L	R
Pb	Leaded	RoHS

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