

Kingtronics®

GKT-VZ

Aluminum Electrolytic Capacitor – SMD

FEATURES

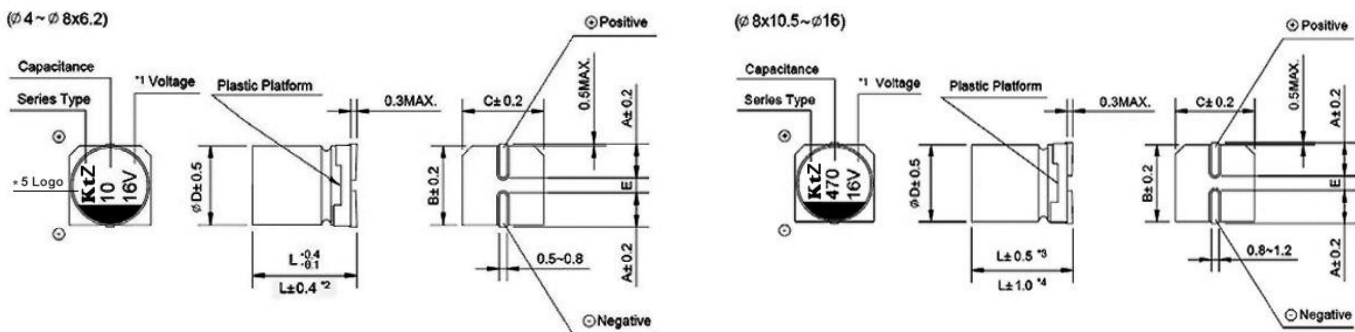
- ◆ Low impedance with temperature range -55 ~ +105°C.
- ◆ Load life of 1000 ~ 2000 hours..
- ◆ Comply with the RoHS directive.



SPECIFICATIONS

OPERATING TEMPERATURE	-55°C ~ +105°C								
Voltage Range	6.3V ~ 50V.DC								
Capacitance Range	1 ~ 4700µF								
Capacitance Tolerance	±20% at 120Hz, 20°C								
Leakage Current	Leakage current (Φ4~Φ10) ≤0.01CV or 3µA, whichever is greater (After 2 minutes application of rated voltage) Leakage current (Φ12.5~Φ16) ≤0.03CV or 4µA, whichever is greater (After 1 minutes application of rated voltage)								
Dissipation Factor (Tan δ)	Measurement Frequency: 120Hz, Temperature: 20°C								
		Rated Voltage (V)		6.3	10	16	25	35	50
	Tan δ (Max.)	Φ4~Φ10	Φ12.5~Φ16	0.22	0.19	0.16	0.14	0.12	0.12
Stability At Low Temp.	Measurement Frequency: 120Hz								
		Rated Voltage (V)		6.3	10	16	25	35	50
	Impedance Ratio ZT/Z20 (Max.)	Φ4~Φ10	Z(-25°C)/ Z(20°C)	2	2	2	2	2	2
			Z(-55°C)/ Z(20°C)	5	4	4	3	3	3
	Φ12.5~Φ16	Z(-25°C)/ Z(20°C)	3	3	2	2	2	2	
		Z(-55°C)/ Z(20°C)	10	8	6	4	3	3	
Load Life	After 2000 hours. (1000 hours for Ø4~ Ø6.3*5.4)application of rated voltage at 105°C. They meet the characteristics listed at right.								
	Capacitance Change	Within ± 20% of initial value.							
	Dissipation Factor	200% or less of initial specified value							
	Leakage Current	Initial specified value or less							
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours. They meet the specified value for load life characteristics listed above.								
	After reflow soldering and restored at room temperature, they meet the characteristics listed at right.								
Resistance to Soldering Heat	After reflow soldering and restored at room temperature, they meet the characteristics listed at right.								
	Capacitance Change	Within ± 10% of initial value							
	Dissipation Factor	Initial specified value or less							
	Leakage Current	Initial specified value or less							

DRAWING (Unit: mm)



- *1 Voltage mark for 6.3V is [6V] or [6.3V] *2 Applicable to Φ6.3*7.7 *3 Applicable to Φ8*10.5~Φ10 *4 Applicable to Φ12.5~Φ16
*5 Kt logo mark for D:4mm & 5mm is [K] Product Markings: KtZ, KZ, LZ

Please visit our website to get more update data, those data & specification are subject to change without notice.

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DIMENSIONS (Unit: mm)

ØDxL	4x5.4	5x5.4	6.3x5.4/7.7	8x6.2	8x10.5	10x10.5/13.5	12.5x13.5/16	16x16.5
A	2.0	2.2	2.6	3.4	3.0	3.3	4.9	5.8
B	4.3	5.3	6.6	8.4	8.4	10.4	13.0	17.0
C	4.3	5.3	6.6	8.4	8.4	10.4	13.0	17.0
E±0.2	1.0	1.4	1.9	2.3	3.1	4.7	4.7	6.4
L	5.4	5.4	5.4/7.7	6.2	10.5	10.5/13.5	13.5/16	16.5

DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV Cap.(µF)		6.3			10			16		
		0J			1A			1C		
10	100							4x5.4	3.0	60
15	150							5x5.4 (4x5.4)	1.8 (3.0)	95 (60)
22	220	4x5.4	3.0	60	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)
33	330	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)
47	470	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)
68	680	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)	6.3x5.4	1.0	140	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)
100	101	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)
150	151	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)	6.3x7.7	0.6	230
220	221	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)	6.3x7.7	0.6	230	8x10.5 (6.3x7.7)	0.3 (0.6)	450 (230)
330	331	6.3x7.7	0.6	230	8x10.5	0.3	450	10x10.5 (8x10.5)	0.15 (0.3)	670 (450)
470	471	8x10.5	0.3	450	8x10.5	0.3	450	10x10.5 (8x10.5)	0.15 (0.3)	670 (450)
680	681	8x10.5	0.3	450	10x10.5	0.15	670	10x10.5	0.15	670
1000	102	10x10.5 (8x10.5)	0.15 (0.3)	670 (450)	10x10.5	0.15	670	10x10.5	0.15	670
1500	152	10x13.5 (10x10.5)	0.13 (0.15)	750 (670)	12.5x13.5 (10x13.5)	0.11 (0.13)	820 (750)	12.5x13.5	0.11	820
2200	222	12.5x13.5 (10x13.5)	0.11 (0.13)	820 (750)	12.5x16	0.09	950	16x16.5 (12.5x16)	0.08 (0.09)	1260 (950)
3300	332	12.5x16 (12.5x13.5)	0.09 (0.11)	950 (820)	16x16.5	0.08	1260	16x16.5	0.08	1260
4700	472	16x16.5	0.08	1260	16x16.5	0.08	1260	Case Size ØDxL(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz

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DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV/V Cap/μF		25			35			50		
		1E			1V			1H		
1	010				4x5.4	3.0	60	4x5.4	5.0	30
1.5	1R5				4x5.4	3.0	60	4x5.4	5.0	30
2.2	2R2				4x5.4	3.0	60	4x5.4	5.0	30
3.3	3R3				4x5.4	3.0	60	4x5.4	5.0	30
4.7	4R7	4x5.4	3.0	60	4x5.4	3.0	60	5x5.4	3.0	50
6.8	6R8	4x5.4	3.0	60	5x5.4	1.8	95	6.3x5.4	2.0	70
10	100	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)	5x5.4 (4x5.4)	1.8 (3.0)	95 (60)	6.3x5.4	2.0	70
15	150	6.3x5.4	1.8	95	5x5.4	1.8	95	6.3x5.4	2.0	70
22	220	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)	6.3x7.7 (6.3x5.4)	1.0 (2.0)	120 (70)
33	330	6.3x5.4 (5x5.4)	1.0 (1.8)	140 (95)	6.3x5.4	1.0	140	6.3x7.7	1.0	120
47	470	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)	6.3x7.7 (6.3x5.4)	0.6 (1.0)	230 (140)	6.3x7.7	1.0	120
68	680	6.3x7.7	0.6	230	6.3x7.7	0.6	230	8x10.5	0.6	300
100	101	6.3x7.7	0.6	230	8x10.5	0.3	450	8x10.5	0.6	300
150	151	8x10.5 (6.3x7.7)	0.3 (0.6)	450 (230)	8x10.5	0.3	450	10x10.5	0.3	500
								Case Size ØDxL(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz

WV/V Cap. (μF)		25			35			50		
		1E			1V			1H		
220	221	8x10.5	0.30	450	10x10.5 (8x10.5)	0.15 (0.30)	670 (450)	10x10.5	0.30	500
330	331	10x10.5 (8x10.5)	0.15 (0.30)	670 (450)	10x10.5	0.15	670	16x16.5 (12.5x13.5) (10x13.5)	0.12 (0.20) (0.25)	1060 (650) (580)
470	471	10x10.5	0.15	670	10x10.5	0.15	670	16x16.5 (12.5x16)	0.12 (0.15)	1060 (700)
680	681	10x13.5	0.13	750	12.5x13.5 (10x13.5)	0.11 (0.13)	820 (750)	16x16.5	0.12	1060
1000	102	16x16.5 (12.5x13.5)	0.08 (0.11)	1260 (820)	16x16.5 (12.5x16)	0.08 (0.09)	1260 (950)			
1500	152	12.5x16	0.09	950	16x16.5	0.08	1260			
2200	222	16x16.5	0.08	1260				Case Size ØDxL(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz

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FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency		50Hz	120Hz	300Hz	1KHz	10KHz~	
Coefficient	Ø4~Ø10	1~68µF	0.35	0.50	0.64	0.83	1.00
		100~2200µF	0.40	0.55	0.70	0.85	1.00
	Ø12.5~Ø16	~680µF	0.45	0.65	0.80	0.90	1.00
		1000~4700µF	0.65	0.85	0.95	1.00	1.00

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HOW TO ORDER

<u>GKT</u>	<u>VZ</u>	<u>0J</u>	<u>M</u>	<u>220</u>	<u>040054</u>	<u>T</u>	<u>R</u>
Series	Sub Series	Voltage	Capacitance Tolerance	Capacitance	Case Size	Packing	Pb
		1.	2.	3.	4.	5.	6.

NOTE:

1. Rated Voltage

Code	0G	0J	1A	1C	1E	1V	1H	1J	2A
Voltage	4	6.3	10	16	25	35	50	63	100

2. Capacitance Tolerance

Code	K	M	Q	T
Tolerance	±10%	±20%	+30-10%	+50-10%

3. Capacitance

Code	0R1	R47	010	4R7	100	470	101	471	102	472	103
Capacitance (µF)	0.1	0.47	1	4.7	10	47	100	470	1000	4700	10000

4. Case Size

Code	040054	050054	063054	080105	100105	125135	160215
Case Size (mm)	4x5.4	5x5.4	6.3x5.4	8x10.5	10x10.5	12.5x13.5	16x21.5

5. Packing

Code	T
Packing	Tape & Reel

6. Pb

Code	R
Pb	RoHS

Note: Specifications are subject to change without notice.

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