

Kingtronics®

GKT-VZ

Aluminum Electrolytic Capacitor – SMD

FEATURES

- ◆ Endurance: 105°C 2000H, Low Impedance.
- ◆ Designed for reflow soldering.
- ◆ Designed for surface mounting on high-density PCB.



Fig 1



Fig 2



Fig 3

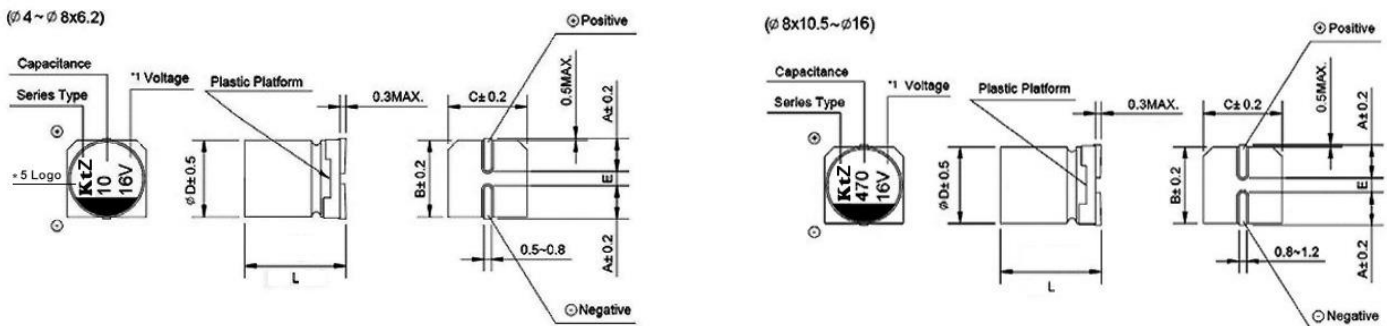
Note: Fig 1 & 2: Diameter 4 ~10mm

Fig 3 : Diameter: ≥12.5mm

SPECIFICATIONS

OPERATING TEMPERATURE	-55°C ~ +105°C										
Voltage Range	6.3V ~ 100V.DC										
Capacitance Range	1 ~ 4700µF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	I ≤ 0.01 CV or 3 µA whichever is greater (after 2 minutes)										
Dissipation Factor (Tan δ)	Measurement Frequency: 120Hz, Temperature: 20°C										
	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100	
	Tan δ (Max.)	Φ4~Φ10	0.28	0.22	0.20	0.16	0.14	0.12	0.12	0.12	0.12
Stability At Low Temp.	Measurement Frequency: 120Hz										
	Impedance Ratio	Φ4~Φ10	Z(-25°C)/ Z(20°C)	4	4	3	3	2	2	2	2
			Z(-55°C)/ Z(20°C)	10	7	5	5	4	4	3	4
	ZT/Z20 (Max.)	Φ12.5~Φ16	Z(-25°C)/ Z(20°C)	4	3	3	3	2	2	2	2
			Z(-55°C)/ Z(20°C)	10	7	5	5	4	4	3	4
Load Life	After applying rated working voltage for 2000 hours at +105°C ± 2°C, and then being stabilized at +20°C, capacitors shall meet the following limits.										
	Capacitance Change	Within ±25% of initial value.									
	Dissipation Factor	Less than 250% of the initial value									
	Leakage Current	Within the initial limit									
Shelf Life	After storage for 1000 h at +105°C ± 2°C with no voltage applied and then being stabilized at +20°C, capacitors shall meet the limits specified in endurance.										
Resistance to Soldering Heat	After reflow soldering and then being stabilized at +20°C, capacitors shall meet the following limits.										
	Capacitance Change	Within ± 10% of initial value									
	Dissipation Factor	Within the initial limit									
	Leakage Current	Within the initial limit									

DRAWING (Unit: mm)



*1 Voltage mark for 6.3V is [6V] or [6.3V]

*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	8x6.5/10.5	10x7.7/10.5/13.5	12.5x13.5
A	2.0	2.2	2.6	3.0	3.3	4.9
B	4.3	5.3	6.6	8.4	10.4	13.0
C	4.3	5.3	6.6	8.4	10.4	13.0
E±0.2	1.0	1.4	1.9	3.1	4.7	4.7
L	5.4±0.6	5.4±0.6	5.4/7.7±0.6	10.5±0.6	10.5/13.5±1.0	13.5±1.0

DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

WV Cap.(µF)		6.3			10			16		
		0J			1A			1C		
10	100							4x5.4	3.00	60
22	220	4x5.4	3.00	60	4x5.4	3.00	60	4x5.4 (5x5.4)	3.00 (1.80)	60 (95)
33	330	4x5.4	3.00	60	4x5.4	3.00	60	5x5.4 (6.3x5.4)	1.80 (1.00)	95 (140)
47	470	5x5.4	1.80	95	5x5.4 (6.3x5.4)	1.80 (1.00)	95 (140)	5x5.4 (6.3x5.4)	1.80 (1.00)	95 (140)
68	680							8x6.5	0.60	230
100	101	5x5.4 (6.3x5.4)	1.80 (1.00)	100 (140)	5x5.4 (6.3x5.4)	1.80 (1.00)	100 (140)	6.3x5.4 (6.3x7.7) (8x6.5) (8x6.5)	1.00 (0.60) (0.60)	140 (230) (230)
150	151				6.3x5.4	1.00	140	6.3x7.7 (8x10.5)	0.60 (0.45)	230 (450)
220	221	6.3x5.4 (6.3x7.7)	1.00 (0.60)	140 (230)	6.3x5.4 (6.3x7.7) (8x10.5)	1.00 (0.60) (0.45)	140 (230) (450)	6.3x7.7 (8x6.5) (8x10.5)	0.60 (0.60) (0.45)	230 (230) (450)
330	331	6.3x7.7 (8x10.5)	0.60 (0.45)	230 (450)	8x10.5	0.45	450	8x10.5 (10x7.7)	0.45 (0.45)	450 (450)
470	471	6.3x7.7 (8x10.5)	0.60 (0.45)	230 (450)	8x10.5	0.45	450	8x10.5 (10x10.5)	0.45 (0.25)	450 (670)
680	681							10x10.5	0.25	670
820	821	8x10.5 (10x10.5)	0.40 (0.25)	450 (670)						
1000	102	10x10.5	0.25	670	10x10.5	0.25	670	10x10.5 (10x13.5)	0.25 (0.15)	670 (750)
1500	152	10x10.5	0.25	670				12.5x13.5	0.12	820
2200	222	12.5x13.5	0.12	820	12.5x13.5	0.12	820	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

Cap/μF \ WV/V		25			35			50		
		1E			1V			1H		
1	010							4x5.4	5.00	30
2.2	2R2							4x5.4	5.00	30
3.3	3R3							4x5.4	5.00	30
4.7	4R7	4x5.4	3.00	60	4x5.4	3.00	60	4x5.4 (5x5.4)	5.00 (3.00)	30 (50)
10	100	4x5.4 (5x5.4)	3.00 (1.80)	60 (95)	4x5.4 (5x5.4)	3.00 (1.80)	60 (95)	5x5.4 (6.3x5.4)	3.00 (2.00)	50 (70)
22	220	5x5.4 (6.3x5.4)	1.80 (1.00)	95 (140)	5x5.4 (6.3x5.4)	1.80 (1.00)	95 (140)	6.3x5.4 (6.3x7.7) (8x6.5)	2.00 (1.00) (1.00)	70 (120) (120)
33	330	5x5.4 (6.3x5.4)	1.80 (1.00)	95 (140)	6.3x5.4 (8x6.5)	1.00 (0.60)	140 (230)	6.3x7.7 (8x10.5)	1.00 (0.80)	120 (280)
47	470	6.3x5.4	1.00	140	6.3x5.4 (6.3x7.7) (8x6.5) (8x10.5)	1.00 (0.60) (0.60) (0.45)	140 (230) (230) (450)	6.3x7.7 (8x6.5) (8x10.5)	1.00 (1.00) (0.80)	120 (120) (300)
100	101	6.3x7.7 (8x10.5)	0.60 (0.45)	230 (450)	6.3x7.7 (8x6.5) (8x10.5)	0.60 (0.60) (0.45)	230 (230) (450)	8x10.5 (10x7.7) (10x10.5)	0.80 (0.80) (0.45)	300 (300) (450)
150	151	8x10.5	0.45	450	8x10.5 (10x7.7)	0.45 (0.45)	450 (450)	10x10.5	0.45	450
220	221	8x10.5 (10x7.7) (10x10.5)	0.45 (0.45) (0.25)	450 (450) (670)	8x10.5 (10x10.5)	0.40 (0.25)	450 (670)	10x10.5 (10x13.5)	0.45 (0.35)	500 (550)
330	331	8x10.5 (10x10.5)	0.40 (0.25)	450 (670)	10x10.5	0.25	670	12.5x13.5	0.25	650
470	471	10x10.5	0.25	670	10x13.5	0.15	750	Case Size ØDxL(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz
680	681	10x13.5	0.15	750	12.5x13.5	0.12	820			
1000	102	12.5x13.5	0.11	820						

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DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT&IMPEDANCE

Cap. (µF)		WV/V		63			80			100		
				1J			1K			2A		
4.7	4R7	5x5.4	5.00	50				5x5.4 (6.3x5.4)	5.00 (5.00)	25 (40)		
10	100	6.3x5.4	3.00	80	6.3x7.7	3.00	60	6.3x7.7 (8x6.5)	3.00 (3.00)	60 (60)		
22	220	6.3x7.7	2.50	100	8x10.5	2.00	130	8x10.5 (10x10.5)	2.00 (1.50)	130 (180)		
33	330	8x10.5	2.00	250	10x10.5	1.50	180	10x10.5 (10x13.5)	1.50 (1.20)	180 (210)		
47	470	8x10.5 (10x7.7) (10x10.5)	2.00 (2.00) (1.50)	250 (250) (300)	8x10.5 (10x10.5) (10x13.5)	2.00 (1.50) (1.20)	130 (180) (240)	10x10.5 (10x13.5) (12.5x13.5)	1.50 (1.20) (0.85)	180 (240) (500)		
100	101	10x10.5 (10x13.5) (12.5x13.5)	1.50 (1.00) (0.85)	300 (400) (500)	10x10.5 (10x13.5) (12.5x13.5)	1.50 (1.20) (0.85)	180 (240) (500)	12.5x13.5	0.85	500		
150	151				12.5x13.5	0.85	500	Case Size ØDxL(mm)	Impedance (Ω) at 20°C 100kHz	Ripple Current (mA rms) at 105°C 100kHz		
220	221	12.5x13.5	0.65	550								

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FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency		50Hz	120Hz	1KHz	10kHz \leq
Coefficient	Full Capacitance	0.60	0.70	0.85	1.00

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	$\pm 10\%$	$\pm 20\%$	+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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