

# Kingtronics®

# GKT-VL

## Aluminum Electrolytic Capacitor– SMD

### FEATURES

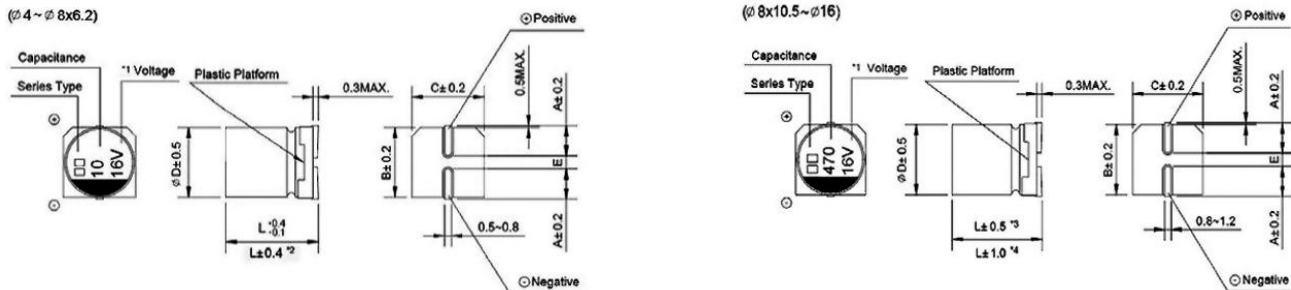
- ◆ Wide temperature range -55~+105°C.
- ◆ Load life of 3000~5000 hours.
- ◆ Comply with the RoHS directive..



### SPECIFICATIONS

<b>OPERATING TEMPERATURE</b>	-55°C ~+105°C								
<b>Voltage Range</b>	6.3V~100V.DC								
<b>Capacitance Range</b>	0.1 ~ 1500µF								
<b>Capacitance Tolerance</b>	±20% at 120Hz, 20°C								
<b>Leakage Current</b>	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)								
<b>Dissipation Factor (Tan δ)</b>	Measurement Frequency: 120Hz, Temperature: 20°C								
		Rated Voltage (V)	6.3	10	16	25	35	50	
	Tan δ (Max.)	Φ4~Φ10	0.28	0.24	0.20	0.16	0.13	0.12	
<b>Stability At Low Temp.</b>	Measurement Frequency: 120Hz								
		Rated Voltage (V)	6.3	10	16	25	35	50	
	Impedance Ratio	Φ4~Φ10	Z(-25°C)/ Z(20°C)	3	3	2	2	2	2
			Z(-55°C)/ Z(20°C)	8	5	4	3	3	3
	ZT/Z20 (Max.)	Φ12.5~Φ16	Z(-25°C)/ Z(20°C)	5	4	3	2	2	2
Z(-55°C)/ Z(20°C)			12	10	8	5	4	3	
<b>Load Life</b>	After 5000 hrs. (3000 hrs. for Φ4~Φ6.3*5.4&Φ8*6.2) application of the rated voltage at 105°C, They meet the characteristics listed below.								
	Capacitance Change	Within ±30% of initial value							
	Dissipation Factor	300% or less of initial specified value							
	Leakage Current	Initial specified value or less							
<b>Shelf Life</b>	After leaving capacitors under no load at 105°C for 1000 hours, They meet the specified value for life characteristics listed above..								
<b>Resistance to Soldering Heat</b>	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]	*2 Applicable to Φ 6.3*7.7
*3 Applicable to Φ8*10.5~Φ10	*4 Applicable to Φ12.5~Φ16.

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### DIMENSIONS(Unit: mm)

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

### DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV		6.3		10		16		25	
Cap. (µF)		0J		1A		1C		1E	
10	100					4×5.4	18	5×5.8	27
22	220	4×5.4	22	5×5.8	30	5×5.8	30	6.3×5.4	44
33	330	5×5.8	35	5×5.8	36	6.3×5.4	48	6.3×5.4	50
47	470	5×5.8	38	6.3×5.4	50	6.3×5.4	50	6.3×7.7	63
								(8×6.2)	(63_
100	101	6.3×5.4	69	6.3×7.7	81	6.3×7.7	81	8×10.5	116
				(8×6.2)	(81)	(8×6.2)	(81)		
150	151	6.3×7.7	85	8×10.5	125	8×10.5	125	10×10.5	320
		(8×6.2)	(85)						
220	221	6.3×7.7	120	8×10.5	141	10×10.5	216	10×10.5	320
		(8×6.2)	(120)						
330	331	8×10.5	290	10×10.5	290	10×10.5	290	10×10.5	320
470	471	10×10.5	320	10×10.5	320	10×10.5	320	12.5×13.5	400
								(10×13.5)	(350)
680	681	10×10.5	320	10×10.5	320	10×13.5	420	12.5×13.5	415
1000	102	10×10.5	410	10×13.5	390	12.5×13.5	550	12.5×13.5	460
1500	152	10×13.5	450	12.5×13.5	480	12.5×13.5	650	12.5×16	700
2200	222	12.5×13.5	680	12.5×16	750	16×16.5	800		
				(12.5×13.5)	(510)				
3300	332	12.5×16	850	16×16.5	800			Case Size	Ripple Current
		(12.5×13.5)	(800)						

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Aluminum Electrolytic Capacitor— SMD

**DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT**

WV		35		50		63		100	
Cap. (μF)		1V		1H		1J		2A	
0.1	0R1			4x5.4	1.0				
0.22	R22			4x5.4	2.6				
0.33	R33			4x5.4	3.2				
0.47	R47			4x5.4	5				
1	010			4x5.4	8				
2.2	2R2			4x5.4	12				
3.3	3R3			4x5.4	17			6.3x7.7	30
								(8x6.2)	(30)
4.7	4R7	4x5.4	16	5x5.8	22			8x10.5	50
10	100	5x5.8	27	6.3x5.4	32	6.3x7.7	45	8x10.5	55
						(8x6.2)	(45)		
22	220	6.3x5.4	44	6.3x7.7	58	8x10.5	65	10x10.5	70
				(8x6.2)	(58)				
33	330	6.3x7.7	57	8x10.5	140	10x10.5	80	10x10.5	80
		(8x6.2)	(57)						
47	470	8x10.5	92	10x10.5	310	10x10.5	90	12.5x13.5	250
								(10x13.5)	(150)
100	101	10x10.5	151	10x10.5	310	10x13.5	150	12.5x13.5	300
150	151	10x10.5	290	10x10.5	310			16x16.5	600
220	221	10x10.5	375	12.5x13.5	340	12.5x13.5	470		
				(10x13.5)	(320)				
330	331	12.5x13.5	380	12.5x16	600	16x16.5	650		
		(10x13.5)	(375)	(12.5x13.5)	(500)	(12.5x16)	(550)		
470	471	12.5x13.5	520	16x16.5	700				
680	681	12.5x13.5	550						
1000	102	16x16.5	750						
		(12.5x16)	(600)						
								Case Size	Ripple Current

**FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT**

Frequency		50Hz	120Hz	300Hz	1KHz	10KHz~	
Coefficient	∅ 4~ ∅ 10	0.70	1.00	1.17	1.36	1.50	
	∅ 12.5~ ∅ 16	~68μF	0.75	1.00	1.35	1.57	2.00
		100~470μF	0.80	1.00	1.23	1.34	1.50
		680~3300μF	0.85	1.00	1.10	1.13	1.15

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

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### HOW TO ORDER

<u>GKT</u>	<u>VL</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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