

# Kingtronics®

# GKT-VE

## Aluminum Electrolytic Capacitor – SMD

### FEATURES

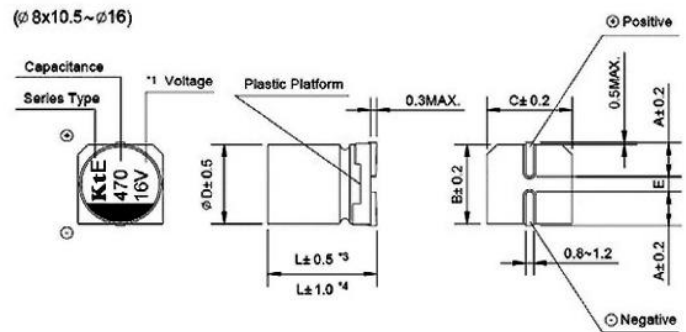
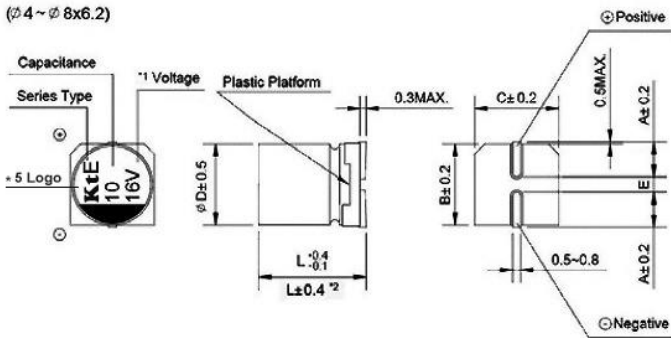
- ◆ Wide temperature range -55~+105°C.
- ◆ Load life of 2000~3000 hours
- ◆ Comply with the RoHS directive.



### SPECIFICATIONS

<b>OPERATING TEMPERATURE</b>	-55°C ~ +105°C								
<b>Voltage Range</b>	6.3V ~ 50V.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	Φ4~Φ10	0.28	0.24	0.20	0.16	0.13	0.12	
	(Max.)	Φ12.5~Φ16	0.38	0.34	0.30	0.26	0.22	0.18	
<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 3000 hours' ( 2000 hours for Ø4~ Ø6.3 and Ø 8*6.2) application of rated voltage at 105°C , They meet the characteristics listed at right.								
	Capacitance Change	Within ± 25% of initial value							
	Leakage Current	Initial specified value or less							
	Dissipation Factor	200% or less of initial specified value							
<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] or [6.3V] \*2 Applicable to Φ6.3\*7.7 \*3 Applicable to Φ8\*10.5~Φ10 \*4 Applicable to Φ12.5~Φ16  
\*5 KtE logo mark for D:4mm & 5mm is [K] Product Markings: KtE, KE, VL

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)**

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	12.5×16	16×16.5
A	2.0	2.2	2.6	2.6	3.4	3.0	3.3	3.3	4.9	4.9	5.8
B	4.3	5.3	6.6	6.6	8.4	8.4	10.4	10.4	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.4	8.4	10.4	10.4	13.0	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	4.7	6.4
L	5.8	5.8	5.8	7.7	6.2	10.5	10.5	13.5	13.5	16.0	16.5

**DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT**

WV/V		6.3		10		16		25		35		50	
Cap/μF		0J		1A		1C		1E		1V		1H	
0.1	0R1											4x5.4	1
0.22	R22											4x5.4	2
0.33	R33											4x5.4	3
0.47	R47											4x5.4	5
1	010											4x5.4	10
2.2	2R2											4x5.4	16
3.3	3R3											4x5.4	16
4.7	4R7							4x5.4	13	4x5.4	14	5x5.8	23
10	100	--	--	--	--	4x5.4	18	5x5.8	20	5x5.8	21	6.3x5.4	35
22	220	4x5.4	22	5x5.8	25	5x5.8	27	6.3x5.4	36	6.3x5.4	38	6.3x7.7 (8x6.2)	70 (70)
33	330	5x5.8	27	5x5.8	30	6.3x5.4	40	6.3x5.4	60	6.3x7.7 (8x6.2)	84 (84)	8x10.5	90
47	470	5x5.8	33	6.3x5.4	41	6.3x5.4	48	6.3x7.7 (8x6.2)	90 (91)	8x10.5	98	8x10.5	90
100	101	6.3x5.4	50	6.3x5.4 (8x6.2)	53 (110)	6.3x5.4	60	8x10.5	130	8x10.5	130	10x10.5	100
150	151	6.3x5.4	55	6.3x7.7	105	6.3x7.7	95	8x10.5	140	10x10.5	315	10x10.5	100
220	221	6.3x7.7	100	8x10.5	210	8x10.5	210	10x10.5	190	10x10.5	315	10x13.5 (10x10.5)	250 (100)
330	331	8x10.5	210	8x10.5	210	8x10.5	210	10x10.5	315	10x10.5	315	12.5x13.5	400
470	471	8x10.5	210	10x10.5	315	10x10.5	315	10x10.5	315	12.5x13.5 (10x13.5)	500 (360)	16x16.5 (12.5x16)	650 (500)
680	681	8x10.5	210	10x10.5	315	10x10.5	315	10x13.5	380	12.5x13.5	500		
1000	102	10x10.5	315	10x13.5 (10x10.5)	360 (315)	12.5x13.5 (10x13.5) (10x10.5)	450 (350) (315)	12.5x13.5	550	16x16.5 (12.5x16)	700 (550)		
1500	152	10x13.5 (10x10.5)	450 (315)	12.5x13.5	500	12.5x13.5	500	12.5x16	800				
2200	222	12.5x13.5	620	12.5x16 (12.5x13.5)	650 (600)	16x16.5	900	16x16.5	1000				
3300	332	12.5x16	750	16x16.5	950							Case Size	Ripple Current

**FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT**

Frequency		50Hz	120Hz	300Hz	1KHz	10KHz~
Coefficient	Φ4~Φ10	0.1~100μF	0.70	1.00	1.17	1.50
		150~1500μF	0.85	1.00	1.08	1.30
	Φ12.5~Φ16	~470μF	0.75	1.00	1.35	2.00
		680~3300μF	0.85	1.00	1.23	1.34

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**HOW TO ORDER**

<u>GKT</u>	<u>VE</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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