

Kingtronics®

GKT-VL

Aluminum Electrolytic Capacitor – SMD

FEATURES

- ◆ Endurance : 105°C 3000~5000H
- ◆ Designed for reflow soldering
- ◆ Designed for surface mounting on high-density PCB



Fig 1

Fig 2

Fig 3

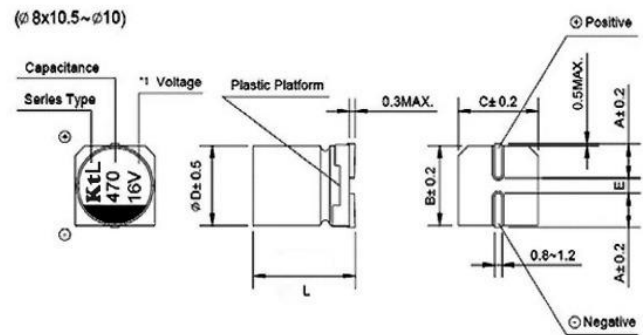
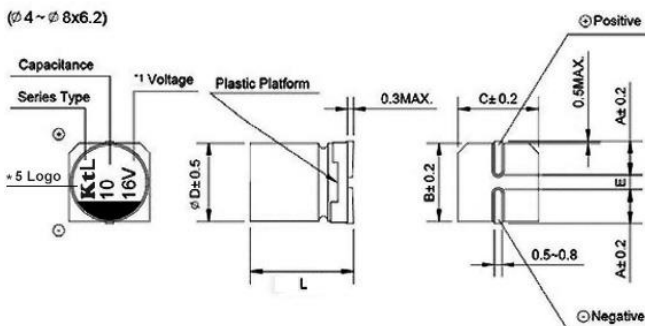
Note: Fig 1 & 2: Diameter 4 ~10mm

Fig 3 : Diameter: ≥12.5mm

SPECIFICATIONS

Rated Voltage (V)	-	6.3	10	16	25	35	50	63	80	100		
Surge Voltage (V)	Room temperature	7.3	11.5	18.4	28.8	40.3	57.5	72.5	92	115		
Category Temperature Range(°C)	-	-55 to +105										
Capacitance Tolerance (%)	120Hz/20°C	M : ±20										
Dissipation Factor (Tan δ)	Tanδ (max) 120Hz/20°C	Ø4-Ø10	0.32	0.26	0.20	0.18	0.16	0.14	0.14	0.16	0.14	
		Ø12.5-Ø16	0.42	0.38	0.32	0.28	0.22	0.18	0.16	0.16	0.16	
Leakage Current (LC)	µA/after 2minutes (max)	The greater value of either 0.01CV or 3µA										
Impedance Ratio at Low Temperature	Based on the value at 120Hz, +20°C	-25°C	Z/Z20°C	7	4	3	2	2	2	2	3	3
		-55°C	Z/Z20°C	15	8	6	4	4	4	3	3	3
Endurance	After applying rated working voltage for 3000/5000 hours at +105°C±2°C, and then being stabilized at +20°C, capacitors shall meet the following limits	Test Time	φD ≦ 6.3mm: 3000H, φD ≧ 8mm: 5000H									
		ΔC/C	Within ±30% of the initial value									
		tanδ	Less than 300% of the specified value									
		LC	Less than the specified value									
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	ΔC/C	Within ±10% of the initial value									
		tanδ	Within the initial limit									
		LC	Within the initial limit									

DRAWING (Unit: mm)



x1 Voltage mark for 6.3V is [6V] or [6.3V]

x5 Kt logo mark for D:4mm & 5mm is [K] Product Markings: KtL, KL, KL

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DIMENSIONS(Unit: mm)

∅D×L	4×5.8	5×5.8	6.3×5.8	6.3×7.7	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	3.0	3.3	3.3	4.7	4.7	5.5
B	4.3	5.3	6.6	6.6	8.3	10.3	10.3	13.0	13.0	17.0
C	4.3	5.3	6.6	6.6	8.3	10.3	10.3	13.0	13.0	17.0
E±0.2	1.0	1.3	2.2	2.2	3.1	4.4	4.4	4.4	4.4	6.4
L	5.8±0.6	5.8±0.6	5.8±0.6	7.7±0.6	10.5±0.6	10.5±0.6	13.5±1.0	13.5±1.0	16.0±1.0	16.5±1.0

DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV		6.3		10		16		25		35	
		0J		1A		1C		1E		1V	
Cap. (μF)											
4.7	4R7	--	--	--	--	--	--	--	--	4×5.8	16
10	100	--	--	--	--	4×5.8	18	5×5.8	27	5×5.8	27
22	220	4×5.8	22	5×5.8	30	5×5.8	30	6.3×5.8	44	6.3×5.8	44
33	330	5×5.8	35	5×5.8	35	6.3×5.8	48	6.3×5.8	50	6.3×7.7	57
47	470	5×5.8	38	6.3×5.8	50	6.3×5.8	50	6.3×7.7	63	8×10.5	92
100	101	6.3×5.8	69	6.3×7.7	80	6.3×7.7	81	8×10.5	116	10×10.5	151
150	151	--	--	8×10.5	125	--	--	--	--	--	--
220	221	6.3×7.7	101	8×10.5	140	8×10.5	141	10×10.5	290	10×10.5	320
330	331	8×10.5	141	10×10.5	290	10×10.5	290	10×10.5	320	12.5×13.5	320
470	471	10×10.5	320	10×10.5	320	10×10.5	320	12.5×13.5	400	12.5×13.5	350
1000	102	10×10.5	410	10×13.5	390	12.5×13.5	550	--	--	--	--
1500	152	12.5×13.5	500	12.5×13.5	500	12.5×13.5	600	--	--	--	--
2200	222	12.5×13.5	600	12.5×13.5	600	--	--	--	--	Case Size	Ripple Current

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DIMENSIONS&MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Cap. (μF)		50		63		80		100	
		1H		1J		1K		2A	
1	010	4x5.8	8	--	--	--	--	--	--
2.2	2R2	4x5.8	12	--	--	--	--	--	--
3.3	3R3	4x5.8	17	--	--	--	--	--	--
4.7	4R7	5x5.8	22	--	--	--	--	6.3x7.7	40
10	100	6.3x5.8	32	6.3x7.7	45	--	--	8x10.5	55
22	220	6.3x7.7	58	8x10.5	65	--	--	10x10.5	70
33	330	8x10.5	130	10x10.5	80	--	--	10x10.5	80
47	470	8x10.5	141	10x10.5	110	--	--	12.5x13.5	150
100	101	10x10.5	160	12.5x13.5	150	12.5x13.5	180	12.5x13.5	220
150	151	--	--	--	--	12.5x13.5	220	--	--
220	221	12.5x13.5	280	12.5x13.5	240	--	--	Case Size	Ripple Current

Case Size ØDxL(mm), ripple current(mA rms) at 105°C 120Hz

FREQUENCY COEFFICIENT OF ALLOWABLE RIPPLE CURRENT

Frequency: F(Hz)		50Hz	120Hz	1kHz	10kHz ≅
Capacitance: C(μF)	C ≅ 1000μF	0.70	1.00	1.20	1.30
	C > 1000μF	0.85	1.00	1.10	1.15

Please visit our website to get more update data, those data & 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	1K	2A
Voltage	4	6.3	10	16	25	35	50	63	80	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	040058	050058	063058	080105	100105
Case Size (mm)	4x5.8	5x5.8	6.3x5.8	8x10.5	10x10.5

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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