

# Kingtronics®

# GKT-VD

## Aluminum Electrolytic Capacitor – SMD

### FEATURES

- ◆ Life time 105°C 5000hrs standard product
- ◆ Reflow soldering is available
- ◆ Available for high density surface mounting
- ◆ High stability and reliability



### SPECIFICATIONS

Category Temperature Range	-40°C ~ +105°C			
Rated Voltage Range	160V ~ 450V.DC			
Capacitance Range	1 ~ 22μF			
Capacitance Tolerance	±20% (120Hz, +20°C)			
Leakage Current (MAX)	I = 0.04CV (μA) + 100 (μA) after 2 minutes I = Leakage Current (μA) C = Nominal Capacitance (μF) V = Rated Voltage (V)			
Dissipation Factor (MAX) Tan δ (20°C, 120Hz)	Rated Voltage (V)	160 ~ 200	250 ~ 400	450
	Tanδ	0.20	0.25	0.30
Load Life	In 105°C degrees Celsius environment, continuous application of rated voltage for 5000 hours, after 16 hours was measured at room temperature, the capacitors shall meet the following requirements :			
	Capacitance Change	Within ± 30% of the initial value		
	Dissipation Factor	Not more than 300% of the specified value		
	Leakage Current	Not more than the specified value		
Shelf Life	After storage for 1000hrs at 105°C, then resumed 16 hours, the capacitors shall meet the following requirements			
	Capacitance Change	Within ± 30% of the initial value		
	Dissipation Factor	Not more than 300% of the specified value		
	Leakage Current	Within 300% of initial specified value		
Resistance to Soldering Heat	The capacitors shall be kept on then hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the following requirement:			
	Capacitance Change	Within ± 10% of initial value		
	Dissipation Factor	Not more than the initial specified value		
	Leakage Current	Not more than the initial specified value		
Low Temperature Stability Impedance Ratio (MAX) 120Hz	Rated Voltage (V)	160 ~ 200	250 ~ 400	450
	Z-25°C / Z+20°C	6	10	12
	Z-55°C / Z+20°C	8	12	15

### DRAWING (Unit: mm)

Fig.1 (Φ8 ~ Φ10)

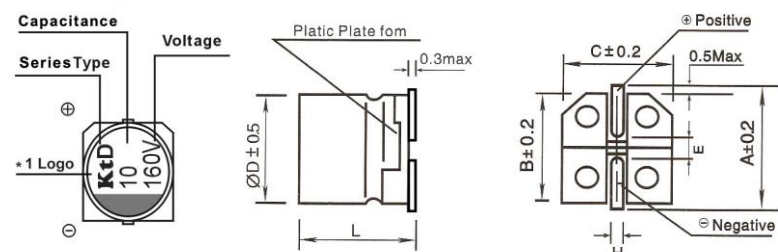
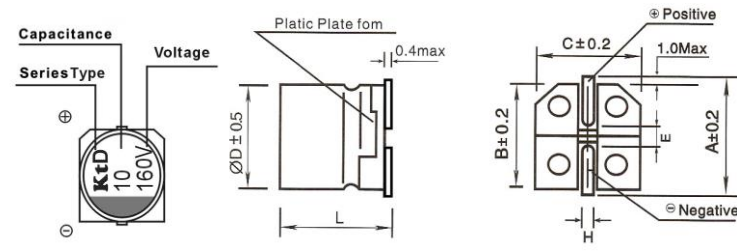


Fig.2 (≥Φ12.5)



\*1 Kt logo mark for D:4mm & 5mm is [K] Product Markings: KtD, VD

ΦD	L	A	B	C	E	H	Fig. No.
8	10.5 ± 0.5	9.1	8.3	8.3	3.1	0.8 ~ 1.1	1
8	12.5 ± 0.5	9.1	8.3	8.3	3.1	0.8 ~ 1.1	1
10	10.5 ± 0.5	11.1	10.3	10.3	4.5	0.8 ~ 1.1	1
10	12.5 ± 0.5	11.1	10.3	10.3	4.5	0.8 ~ 1.1	1
12.5	13.5 ± 0.5	13.7	13.0	13.0	4.4	1.0 ~ 1.4	2

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**MULTIPLIER FOR RIPPLE CURRENT****Frequency Coefficient**

Frequency	120Hz	1kHz	10kHz	100kHz
Coefficient	1.00	1.25	1.40	1.60

**STANDARD RATINGS**

WV	160			200			250			400			450		
	DxL	Tan $\delta$	mA	DxL	Tan $\delta$	mA	DxL	Tan $\delta$	mA	DxL	Tan $\delta$	mA	DxL	Tan $\delta$	mA
1	--	--	--	--	--	--	--	--	--	--	--	--	8x10.5	0.30	15
1.5	--	--	--	--	--	--	--	--	--	--	--	--	8x10.5	0.30	18
2.2	--	--	--	--	--	--	--	--	--	8x10.5	0.25	15	8x10.5	0.30	20
3.3	--	--	--	--	--	--	8x10.5	0.25	21	8x10.5	0.25	20	10x10.5	0.30	25
4.7	--	--	--	8x10.5	0.20	25	8x10.5	0.25	26	8x12.5	0.25	33	10x12.5	0.30	39
										10x10.5	0.25	35			
5.6	--	--	--	8x10.5	0.20	27	8x10.5	0.25	28	10x12.5	0.25	43	10x12.5	0.30	48
6.8	8x10.5	0.20	30	8x10.5	0.20	30	10x10.5	0.25	34	10x12.5	0.25	48	10x12.5	0.30	53
8.2	8x10.5	0.20	35	8x10.5	0.20	33	10x10.5	0.25	37	12.5x13.5	0.25	62	--	--	--
10	8x10.5	0.20	43	10x10.5	0.20	40	10x10.5	0.25	45	12.5x13.5	0.25	69	--	--	--
	10x10.5	0.20	50												
12	10x10.5	0.20	53	10x10.5	0.20	45	10x10.5	0.25	50	--	--	--	--	--	--
15	10x10.5	0.20	55	10x12.5	0.20	58	10x12.5	0.25	67	--	--	--	--	--	--
22	10x12.5	0.20	63	--	--	--	--	--	--	--	--	--	--	--	--

Rated ripple current (mA, 105°C, 120Hz)

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# Kingtronics®

## GKT-VD

### Aluminum Electrolytic Capacitor – SMD

#### HOW TO ORDER

<u>GKT</u>	<u>VD</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	2C	2D	2E	2G	2W
Voltage	160	200	250	400	450

##### 2. Capacitance Tolerance

Code	K	M
Tolerance	±10%	±20%

##### 3. Capacitance

Code	010	1R5	2R2	3R3	4R7	5R6	6R8	8R2	100	120	150	220
Capacitance ( $\mu$ F)	1	1.5	2.2	3.3	4.7	5.6	6.8	8.2	10	12	15	22

##### 4. Case Size

Code	080105	080125	100105	100125	125135
Case Size (mm)	8x10.5	8x12.5	10x10.5	10x12.5	12.5x13.5

##### 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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