

Kingtronics®

GKT-VF

Aluminum Electrolytic Capacitor– SMD

FEATURES

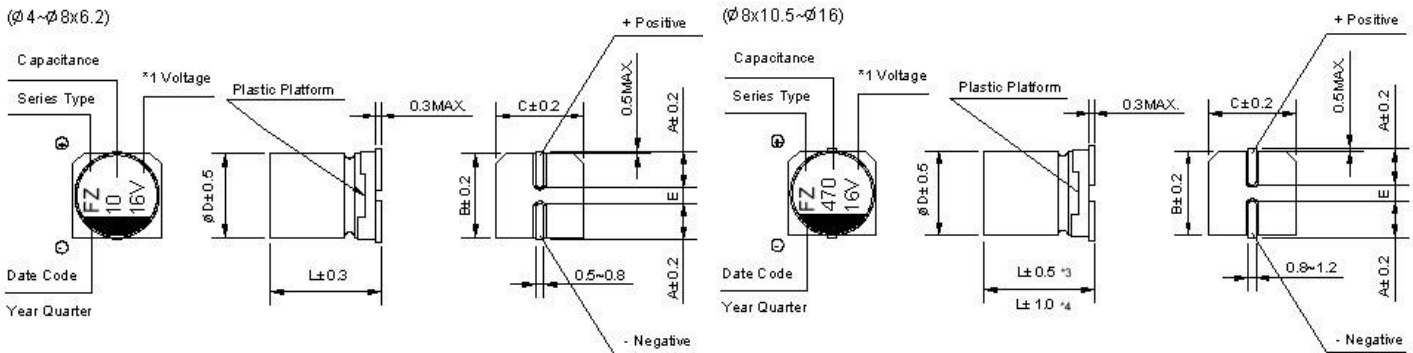
- ◆ Extra low impedance with temperature range -55°C to +105°C
- ◆ Load life of 2000-5000 hour
- ◆ Impedance 5~25% less than GKT-VK series
- ◆ Comply with the RoHS directive..



SPECIFICATIONS

OPERATING TEMPERATURE	-55°C ~+105°C										
Voltage Range	6.3V~100V.DC										
Capacitance Range	3.3 ~ 6800μF										
Capacitance Tolerance	±20% at 120Hz, 20°C										
Leakage Current	For Ø4~Ø10, After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3μA, whichever is greater. For Ø12.5~Ø16, After 1 minutes' application of rated voltage, leakage current is not more than 0.03CV or 4μA, whichever is greater.										
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	0.26	0.19	0.16	0.14	0.12	0.10	0.08	0.08	0.07
Stability At Low Temp.	Measurement Frequency: 120Hz										
	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100	
	Impedance Ratio ZT/Z20 (Max.)	Z-25°C / Z+20°C	2	2	2	2	2	2	2	2	2
		Z-40°C / Z+20°C	3	3	3	3	3	3	3	3	3
Z-55°C / Z+20°C		4	4	4	3	3	3	3	3	3	
Load Life	After 5000 hours' 2000 hours for Ø4~ Ø 6.3 and for Ø8*6.2 3000 hours for Ø 8*10.5~ Ø 10*13.5) application of rated voltage at 105°C capacitors meet the characteristics requirements listed below:										
	Capacitance Change	Within ±30% of initial value									
	Dissipation Factor	200% or less of initial specified value									
	Leakage Current	Initial specified value or less									
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for load life characteristics listed above.										
Resistance to Soldering Heat	After reflow soldering according and restored at room temperature, they meet the characteristics requirements listed below:										
	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 [6]

*3 [L±0.5] is applicable to Ø8x10.5~Ø10

*4 [L±1.0] is applicable to Ø12.5~Ø16.

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DIMENSIONS(Unit: mm)

ØDxL	4x5.8	5x5.8	6.3x5.8/7.7	8 x6.2	8x10.5	10x10.5/13.5	12.5 x13.5/16	16 x16.5/21.5
A	1.8	2.1	2.4	3.3	2.9	3.2	4.7	5.5
V	4.3	5.3	6.6	8.3	8.3	10.3	13	17
C	4.3	5.3	6.6	8.3	8.3	10.3	13	17
E	10	1.3	2.2	2.2	3.1	4.5	4.4	6.7
L	5.8	5.8	5.8/7.7	6.2	10.5	10.5/13.5	13.5	16.5/21.5

DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT & IMPEDANCE

WV/V Cap/µF		6.3			10			16		
		0J			1A			1C		
10	100	--	--	--	--	--	--	4x5.8	1.35	90
15	150	--	--	--	--	--	--	4x5.8	1.35	90
22	220	4x5.8	1.35	90	4x5.8	1.35	90	5x5.8 (4x5.8)	0.7 (1.35)	160 (90)
33	330	5x5.8 (4x5.8)	0.7 (1.35)	160 (90)	5x5.8 (4x5.8)	0.7 (1.35)	160 (90)	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)
47	470	5x5.8 (4x5.8)	0.7 (1.35)	160 (90)	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)
56	560	5x5.8	0.7	160	6.3x5.8	0.36	240	6.3x5.8	0.36	240
68	680	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)	6.3x5.8	0.36	240	6.3x7.7 (6.3x5.8)	0.26 (0.36)	300 (240)
100	101	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)	6.3x7.7 (6.3x5.8)	0.26 (0.36)	300 (240)	6.3x7.7 (6.3x5.8)	0.26 (0.36)	300 (240)
150	151	6.3x5.8	0.36	240	6.3x7.7	0.26	300	6.3x7.7	0.26	300
220	221	6.3x7.7 (6.3x5.8) (8x6.2)	0.26 (0.36) (0.26)	300 (240) (300)	6.3x7.7 (8x6.2)	0.26 (0.26)	300 (300)	8x10.5 (6.3x7.7)	0.16 (0.26)	600 (300)
330	331	6.3x7.7 (8x6.2)	0.26 (0.26)	300 (300)	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)
470	471	8x10.5	0.16	600	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)
680	681	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x10.5	0.08	850	10x13.5 (10x10.5)	0.07 (0.08)	950 (850)
1000	102	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x13.5 (10x10.5)	0.07 (0.08)	950 (850)	16x16.5 (12.5x16) (12.5x13.5)	0.05 (0.055) (0.06)	1450 (1200) (1100)
1500	152	10x13.5 (10x10.5)	0.07 (0.08)	950 (850)	12.5x13.5	0.06	1100	16x16.5	0.05	1450
2200	222	12.5x13.5	0.06	1100	12.5x16	0.055	1200	16x21.5	0.035	1750
3300	332	12.5x16	0.055	1200	16x16.5	0.05	1450	16x21.5	0.035	1750
4700	472	16x16.5	0.05	1450	16x21.5	0.035	1750			Ripple
6800	682	16x21.5	0.035	1750	--	--	--	Case size	Impedance	Current

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DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT & IMPEDANCE

WV/V Cap/μF		25			35			50		
		1E			1V			1H		
4.7	4R7	--	--	--	4x5.8	1.35	90	5x5.8 (4x5.8)	1.52 (2.9)	85 (60)
10	100	4x5.8	1.35	90	5x5.8 (4x5.8)	0.7 (1.35)	160 (90)	6.3x5.8 (5x5.8)	0.88 (1.52)	165 (85)
15	150	5x5.8	0.7	160	5x5.8	0.7	160	6.3x5.8	0.88	165
22	220	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)	6.3x7.7 (6.3x5.8) (8x6.2)	0.68 (0.88) (0.68)	195 (165) (195)
33	330	6.3x5.8 (5x5.8)	0.36 (0.7)	240 (160)	6.3x5.8 (8x6.2)	0.36 (0.26)	240 (300)	6.3x7.7 (8x6.2)	0.68 (0.68)	195 (195)
47	470	6.3x7.7 (6.3x5.8) (8x6.2)	0.26 (0.36) (0.26)	300 (240) (300)	6.3x7.7 (6.3x5.8) (8x6.2)	0.26 (0.36) (0.26)	300 (240) (300)	6.3x7.7 (8x6.2)	0.68 (0.68)	195 (195)
56	560	6.3x7.7 (6.3x5.8)	0.26 (0.36)	300 (240)	6.3x7.7	0.26	300	8x10.5	0.34	350
68	680	6.3x7.7	0.26	300	6.3x7.7	0.26	300	8x10.5	0.34	350
100	101	6.3x7.7 (8x6.2)	0.26 (0.26)	300 (300)	8x10.5	0.16	600	10x10.5 (8x10.5)	0.18 (0.34)	670 (350)
150	151	8x10.5 (6.3x7.7)	0.16 (0.26)	600 (300)	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x10.5	0.18	670
220	221	8x10.5	0.16	600	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x13.5 (10x10.5)	0.14 (0.18)	780 (670)
330	331	10x10.5 (8x10.5)	0.08 (0.16)	850 (600)	10x10.5	0.08	850	12.5x13.5	0.12	900
470	471	10x13.5 (10x10.5)	0.07 (0.08)	950 (850)	12.5x13.5 (10x13.5)	0.06 (0.07)	1100 (950)	16x16.5 (12.5x16)	0.08 (0.1)	1250 (1050)
680	681	12.5x13.5	0.06	1100	12.5x16	0.055	1200	16x21.5	0.06	1450
1000	102	16x16.5 (12.5x16)	0.05 (0.055)	1450 (1200)	16x16.5	0.05	1450	--	--	--
1500	152	16x16.5	0.05	1450	16x21.5	0.035	1750	--	--	Ripple Current
2200	222	16x21.5	0.035	1750	--	--	--	Case size	Impedance	Ripple Current

WV/V Cap/μF		63			80			100		
		1J			1K			2A		
3.3	3R3	--	--	--	5x5.8	5.0	25	--	--	--
4.7	4R7	5x5.8	3.0	50	6.3x5.8	3.0	40	--	--	--
10	100	6.3x7.7 (6.3x5.8)	1.2 (1.5)	120 (80)	6.3x7.7 (8x6.2)	2.4 (2.4)	60 (60)	8x10.5	1.3	130
22	220	8x10.5 (6.3x7.7) (8x6.2)	0.65 (1.2) (1.2)	250 (120) (120)	8x10.5	1.3	130	10x10.5 (8x10.5)	0.7 (1.3)	200 (130)
33	330	8x10.5	0.65	250	8x10.5	1.3	130	10x10.5	0.7	200
47	470	8x10.5	0.65	250	10x10.5	0.7	200	12.5x13.5 (10x13.5)	0.32 (0.6)	500 (250)
68	680	12.5x13.5 (8x10.5)	0.16 (0.65)	800 (250)	12.5x13.5	0.32	500	12.5x13.5	0.32	500
100	101	12.5x13.5 (10x10.5)	0.16 (0.35)	800 (400)	12.5x13.5	0.32	500	16x16.5 (12.5x16)	0.17 (0.26)	795 (550)
150	151	12.5x13.5 (10x13.5)	0.16 (0.25)	800 (650)	12.5x13.5	0.32	500	--	--	--
220	221	12.5x13.5 (10x13.5)	0.16 (0.25)	800 (650)	12.5x16	0.26	550	16x21.5	0.15	920
330	331	16x16.5	0.082	1400	16x16.5	0.17	795	--	--	Ripple Current
470	471	16x21.5	0.08	1700	16x21.5	0.15	920	Case size	Impedance	Ripple Current

Max. Impedance (Ω) at 20°C 100kHz, Allowable Ripple current (mA) at 105°C 100kHz

Frequency coefficient Factor of Rated Ripple current

Frequency Capacitance (uF)		50Hz	120Hz	300Hz	1kHz	10kHz~
		∅4-∅10	4.7-68	0.35	0.50	0.64
	100-1500	0.40	0.55	0.70	0.85	1.00
∅12.5-∅16	-68	0.40	0.55	0.70	0.85	1.00
	100-680	0.45	0.65	0.80	0.90	1.00
	1000-6800	0.65	0.85	0.95	1.00	1.00

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HOW TO ORDER

<u>GKT</u>	<u>VF</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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