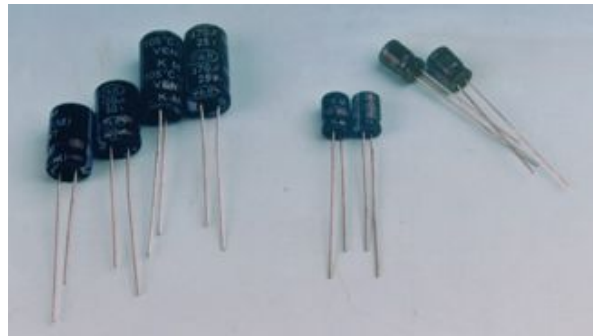


KM 105°C Series

Features

■ Applicable Standard

JIS C 5102 & JIS C 5141



■ Rated Working Voltage Range & Operation Temperature Range

6.3 to 100 v DC/ -40 to +105°C

160 to 450v DC/ -25 to +105°C

■ This series is compliant with the requirement of RoHS and widely used for electronic products, such as LCD's, VCD/DVD's, HiFi, Car HiFi, Adapter, Electronic Instruments, Electronic Medical Apparatus , etc.

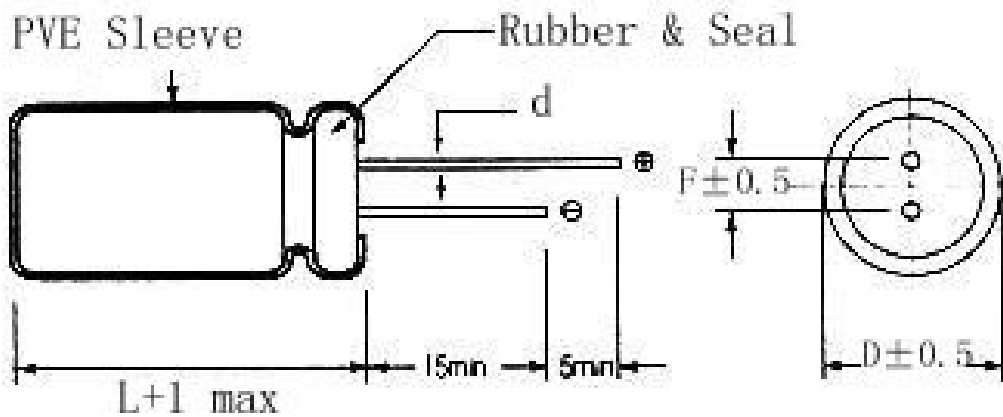
■ Specifications

Item	Performance Characteristics				
Rated Working Voltage Range	6.3 to 100v DC		160 to 450v DC		
Operating Temperature Range	-40 to +105°C		-25 to +105°C		
Nominal Capacitance Range	0.1 to 15000uF		0.47 to 220uF		
Capacitance Tolerance	± 20%(120Hz, +20°C)				
Leakage Current	$I_L \leq 0.01CV$ or $3(\mu A)$		$I_L \leq 0.03CV + 40(\mu A)$		
	Whichever is bigger After 1 minute application of rated working voltage at +20°C				
$tg \delta$ (120Hz, +20°C)	Working Voltage (v)	6.3	10	16	25
	$tg \delta$ (max.)	0.22	0.20	0.26	0.14
	Working Voltage (v)	35	50	63	100
	$tg \delta$ (max.)	0.12	0.10	0.09	0.07

tg δ (120Hz,+20°C)	Working Voltage (v)	160	200	250	350		
	tg δ (max.)	0.15	0.15	0.15	0.20		
	Working Voltage (v)	400	450				
	tg δ (max.)	0.24	0.24				
	For capacitance value > 1000uF, add 0.02 per another 1000uF.						
Frequency coefficient of rated ripple current	Refer to standard products table (120Hz,+105°C) Correction factor for frequency						
	Freq. (Hz)		60	120	1K	10K	100K
	W.V(V)	CAP(uF)					
	6.3~50	0.1~330	0.85	1	1.30	1.40	1.55
		470~3300	0.95	1	1.15	1.20	1.25
		≥4700	0.95	1	1.10	1.20	1.20
	63~100	0.47~33	0.75	1	1.55	1.65	1.80
		47~220	0.75	1	1.40	1.60	1.65
≥330		0.80	1	1.30	1.35	1.40	
≥160	1~220	0.70	1	1.30	1.70	1.70	
Stability at low temperature	Impedance ratio max. at 120Hz						
	Working voltage(v)	6.3	10	16	25	35	
	-25°C/+20°C	4	3	2	2	2	
	-40°C/+20°C	8	6	4	3	3	
	Working voltage(v)	50	63	100	160	200	
	-25°C/+20°C	2	2	2	3	3	
	-40°C/+20°C	3	3	3			
	Working voltage(v)	250	350	400	450		
-25°C/+20°C	3	6	6	15			
For capacitance value > 1000uF: add 0.5 per another 1000uF for -20°C/+20°C add 1.0 per another 1000uF for -40°C/+20°C							
High Temperature Loading	Test conditions: Duration: 3000 hours Ambient temperature: +105°C Applied: DC voltage with maximum permissible ripple current should be equal to rated working voltage.						
	Pos test requirement at +20°C						
	Leakage current: ≤ Initial specified value.						
	Capacitance change: ≤ ±20 of initial measured value.						
	tg δ : ≤ 200% of initial measured value.						

Shelf life	Test conditions: Duration: 3000 hours Ambient temperature: +105°C Applied: (None)
	Post test requirement at +20°C Leakage current: \leq Initial specified value. Capacitance change: $\leq \pm 20$ of initial measured value. $\text{tg } \delta$: $\leq 200\%$ of initial measured value.

■ Diagram of Dimension (Unit: mm)



$\Phi D \pm 0.5$	5	6	8	10	12	13	16	18	22
$F \pm 0.5$	2.0	2.5	3.5	5.0			7.5	7.5	10
ϕd	0.5		0.6	0.6			0.8		

■ Dimensions ($D \times L$ mm)

μF \ WV (SV)	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)
0.1	5×11	5×11	5×11	5×11	5×11	5×11	5×11
0.22	5×11	5×11	5×11	5×11	5×11	5×11	5×11
0.33	5×11	5×11	5×11	5×11	5×11	5×11	5×11
0.47	5×11	5×11	5×11	5×11	5×11	5×11	5×11
1.0	5×11	5×11	5×11	5×11	5×11	5×11	5×11
2.2	5×11	5×11	5×11	5×11	5×11	5×11	5×11
3.3	5×11	5×11	5×11	5×11	5×11	5×11	5×11

WV (SV) μ F	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)
4.7	5×11	5×11	5×11	5×11	5×11	5×11	5×11
10	5×11	5×11	5×11	5×11	5×11	5×11	6×11
22	5×11	5×11	5×11	5×11	5×11	5×11	6×11
33	5×11	5×11	5×11	5×11	5×11	6×11	6×11
47	5×11	5×11	5×11	5×11	5×11	6×12	8×12
100	5×11	5×11	5×11	6×11	6×11	8×12	8×12
220	5×11	5×11	6×11	8×12	8×12	8×16	8×16
330	6×11	6×11	8×12	8×12	8×12	8×16	10×20
470	6×12	6×12	8×12	8×12	10×16	10×20	13×21
1000	8×12	8×12	8×16	10×16	13×21	13×26	16×26
2200	10×16	10×16	10×20	13×21	16×26	16×32	18×36
3300	10×20	10×20	13×21	13×26	16×32	16×32	18×36
4700	13×21	13×21	13×26	16×26	18×36	18×40	22×40
6800	13×21	16×26	16×36	18×36	22×36	22×50	
10000	16×26	16×36	18×40	22×36	22×50		
15000	16×36	18×36	22×36	22×50			

WV (SV) μ F	100 (125)	160 (200)	200 (5)	250 (300)	350 (400)	400 (450)	450 (500)
0.47	5×11	6×11	6×11	6×11	6×11	6×12	6×12
1.0	5×11	6×11	6×11	6×11	6×11	8×12	8×12
2.2	5×11	6×11	6×11	8×12	8×12	8×12	10×13
3.3	5×11	6×11	6×11	8×12	10×13	8×12	10×13
4.7	5×11	6×11	6×11	8×12	10×13	8×12	10×20
10	6×11	6×11	10×13	10×13	10×16	10×16	12×20
22	6×11	8×16	10×16	12×20	10×20	13×21	16×26
33	8×12	10×13	10×20	12×20	13×26	16×26	16×36
47	8×12	10×20	12×21	13×26	16×26	18×26	18×36
100	10×20	12×21	13×21	16×32	16×36	18×32	22×40
220	12×21	13×26	16×26	18×36	18×36	22×40	
330	13×26	16×26	18×36	18×36	22×40		
470	16×26	18×36	22×36	22×40			

* The sizes of e-cap. will be changed as a result of the raw materials being continuously developed and improved. The sizes of e-cap. are subject to change without notice, and so the sizes are based on our offering samples.

■ Maximum Ripple Current

At 105°C/120Hz (Unit: mA, rms)

$\mu F \backslash V$	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
0.1														
0.22														
0.33														
0.47								10	9	9	9	10		
1.0								15	12	12	12	18	18	18
2.2								23	19	19	21	30	30	30
3.3								29	26	26	30	37	40	43
4.7				26	28	30	32	34	31	36	36	48	52	56
10			35	38	41	46	50	56	59	59	64	79	79	79
22		49	54	57	61	68	82	96	95	95	110	130	145	150
33	54	60	64	69	75	90	100	140	125	140	140	175	185	190
47	65	70	99	82	100	110	135	180	165	165	180	230	230	290
100	5	105	125	135	170	180	225	320	270	285	310	380	370	350
220	160	175	215	230	300	345	400	570	450	530	560	570	550	
330	245	245	260	335	400	460	540	700	900	810	770	850		
470	270	290	370	440	520	610	700	880	1490	1170	1250			
1000	460	550	640	770	920	1080	1210							
2200	810	860	1000	1170	1340	1530	2300							
3300	960	1100	1300	1460	1650	2450	2600							
4700	1330	1400	1600	1780	2700	2900	3200							
6800	1500	1690	1900	2700	2900	3300								
10000	1765	1950	2960	2900	3600									
15000	2075	2700	3300	3600	4300									