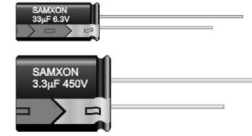


**FEATURES**

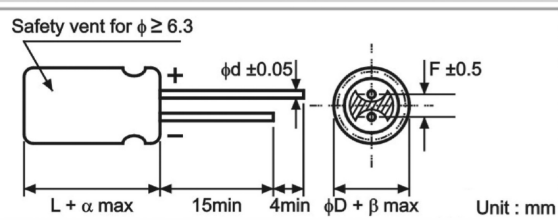
1. Rated working voltage range 6.3 to 100V DC/160 to 450V DC at operation temperature range -40 to +105°C/-25 to +105°C.
2. This series is for communication equipments, switching power supply, industrial measuring instruments, automotive electric products, etc.



**SPECIFICATIONS**

Item	Performance Characteristics								
Operating Temperature Range	-40 to +105°C	-25 to +105°C							
Rated Working Voltage Range	6.3 to 100V	160 to 450V							
Nominal Capacitance Range	0.1 to 33000µF								
Capacitance Tolerance	±20% (120Hz, +20°C)								
Leakage Current	I ≤ 0.01CV or 3(µA) whichever is greater after 2 minutes application of rated working voltage at +20°C								
tan δ (120Hz, +20°C)	Working Voltage (V)	6.3    10    16    25    35    50    63    100							
	tan δ (max.)	0.26   0.22   0.18   0.16   0.14   0.12   0.10   0.08							
	Working Voltage (V)	160    200    220    250    350    400    420    450							
	tan δ (max.)	0.20   0.20   0.20   0.20   0.24   0.24   0.24   0.24							
For capacitance value > 1000µF, add 0.02 per another 1000µF									
Low Temperature Characteristics	Impedance ratio max. at 120Hz								
	Working Voltage (V)	6.3	10	16	25	35	50	63	100
	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2
	Z-40°C / Z+20°C	10	8	6	4	3	3	3	3
	Working Voltage (V)	160	200	220	250	350	400	420	450
	Z-25°C / Z+20°C	3	3	3	4	4	6	6	15
For capacitance value > 1000µF, add 0.5 per another 1000µF for Z-25°C / Z+20°C add 1.0 per another 1000µF for Z-40°C / Z+20°C									
High Temperature Loading	Test conditions		Post test requirements at +20°C						
	Duration : ϕD	≤ 6.3    ≥ 8	Leakage current : ≤ Initial specified value						
	Load life	1000h   2000h	Cap. change : within ±20% of initial measured value						
Ambient temp. : +105°C		tan δ : ≤ 200% of initial specified value							
Applied voltage : DC voltage with maximum permissible ripple current specified at +105°C (Sum of the DC voltage and super-imposed peak AC voltage for maximum permissible ripple current should be equal to rated DC working voltage).									
Shelf Life	Test conditions		Post test requirements at +20°C						
	Duration	: 1000 hours	Same limits for high temperature loading.						
	Ambient temp.	: +105°C							
Applied voltage	: (None)								
Others	JIS C - 5101 (IEC 60384)								

**CASE SIZE TABLE**

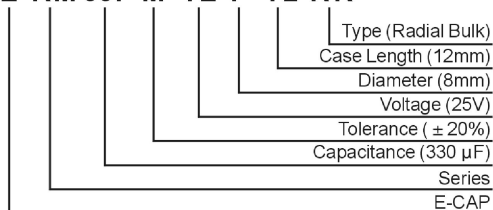


ϕD	5	6.3	8	10	12.5	16	18	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	12.5
ϕd		0.5		0.6		0.8			1.0
α		(L < 20) 1.5			(L ≥ 20) 2.0				
β		(D < 20) 0.5			(D ≥ 20) 1.0				

**PART NUMBER SYSTEM(EXAMPLE:25V330 µ F)**

1 2 3 4 5 6 7 8 9 10 11 12 13 14

**E KM 337 M 1E F 12 RR**



**STANDARD RATINGS**

Voltage (Code)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)	
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104								
0.15	154								
0.22	224								
0.33	334								
0.47	474								
1	105								
2.2	225								
3.3	335								
4.7	475							5 x 11	26
10	106					5 x 11	35	5 x 11	38
22	226			5 x 11	49	5 x 11	54	5 x 11	57
33	336	5 x 11	54	5 x 11	60	5 x 11	64	5 x 11	75
47	476	5 x 11	65	5 x 11	70	5 x 11	80	5 x 11	84
68	686	5 x 11	70	5 x 11	75	5 x 11	90	5 x 11	92
100	107	5 x 11	95	5 x 11	105	5 x 11	125	6.3 x 11	159
220	227	5 x 11	153	5 x 11	170	6.3 x 11	213	8 x 12	285
330	337	6.3 x 11	216	6.3 x 11	239	8 x 12	315	8 x 12	340
470	477	6.3 x 11	258	6.3 x 11	285	8 x 12	366	10 x 12.5	471
680	687	8 x 12	365	8 x 12	408	10 x 12.5	480	10 x 16	620
1000	108	8 x 12	443	10 x 12.5	571	10 x 16	680	10 x 20	821
2200	228	10 x 16	740	10 x 20	886	12.5 x 20	1108	12.5 x 20	1176
3300	338	10 x 20	1032	12.5 x 20	1205	12.5 x 25	1389	16 x 25	1646
4700	478	12.5 x 20	1280	12.5 x 25	1492	16 x 25	1740	16 x 30	2012
6800	688	12.5 x 25	1554	16 x 25	1824	16 x 30	2081	16 x 35	2308
10000	109	16 x 25	1897	16 x 30	1980	16 x 35	2379	18 x 35	2500
15000	159	16 x 30	2188	16 x 40	2180	18 x 35	2600		
22000	229	18 x 35	2400	18 x 40	2407				
33000	339	18 x 40	2555						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size φD x L(mm)

Voltage (Code)		35V (1V)		50V (1H)		63V (1J)		100V (2A)	
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.1	104			5 x 11	1				
0.15	154			5 x 11	1.5				
0.22	224			5 x 11	3				
0.33	334			5 x 11	4				
0.47	474			5 x 11	7			5 x 11	10
1	105			5 x 11	13			5 x 11	16
2.2	225			5 x 11	20			5 x 11	23
3.3	335			5 x 11	30			5 x 11	34
4.7	475	5 x 11	28	5 x 11	37	5 x 11	40	5 x 11	40
10	106	5 x 11	41	5 x 11	54	5 x 11	59	6.3 x 11	61
22	226	5 x 11	67	5 x 11	79	5 x 11	79	6.3 x 11	92
33	336	5 x 11	80	5 x 11	101	6.3 x 11	122	8 x 12	144
47	476	5 x 11	101	6.3 x 11	133	6.3 x 11	146	10 x 12.5	199
68	686					8 x 12	155	10 x 16	240
100	107	6.3 x 11	168	8 x 12	229	10 x 12.5	251	10 x 20	349
220	227	8 x 12	294	10 x 16	509	10 x 20	504	12.5 x 25	662
330	337	10 x 12.5	419	10 x 16	589	12.5 x 20	688	12.5 x 25	800
470	477	10 x 16	547	10 x 20	707	12.5 x 20	810	16 x 25	990
680	687	10 x 20	682	12.5 x 20	923	12.5 x 25	1160	16 x 30	1289
1000	108	12.5 x 20	1023	12.5 x 25	1287	16 x 25	1448	18 x 40	2020
2200	228	16 x 25	1497	16 x 35	1884	18 x 35	1781		
3300	338	16 x 30	1808	18 x 35	2167				
4700	478	18 x 35	2335						
6800	688	18 x 40	2400						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size φD x L(mm)

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.

**+105°C, General(普通品)**

**STANDARD RATINGS**

Voltage (Code)		160V (2C)		200V (2D)		220V (2N)		250V (2E)	
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.47	474							6.3 x 11	8
1	105							6.3 x 11	17
2.2	225							6.3 x 11	27
3.3	335			6.3 x 11	30	6.3 x 11	30	6.3 x 11	35
4.7	475	6.3 x 11	41	6.3 x 11	40	8 x 12	40	8 x 12	45
10	106	8 x 12	60	10 x 12.5	72	10 x 12.5	70	10 x 12.5	75
22	226	10 x 16	110	10 x 16	113	10 x 20	125	10 x 20	130
33	336	10 x 20	156	10 x 20	165	12.5 x 20	165	12.5 x 20	184
47	476	10 x 20	195	10 x 20	194	12.5 x 20	220	12.5 x 25	238
68	686	12.5 x 20	250	12.5 x 25	250	12.5 x 25	245	16 x 20	246
82	826	12.5 x 25	310	10 x 30	320	12.5 x 30	280	16 x 25	351
100	107	12.5 x 25	360	16 x 25	386	16 x 25	335	16 x 25	390
150	157	12.5 x 30	380	16 x 25	525	16 x 30	365	18 x 30	440
180	187	12.5 x 35	420	12.5 x 35	560	16 x 35	500	18 x 35	469
220	227	16 x 30	680	16 x 30	643	16 x 40	615	18 x 35	485
270	277	16 x 30	728	18 x 30	740				
330	337	18 x 35	830	18 x 30	808				
390	397	18 x 35	850	18 x 35	904				
470	477	18 x 40	880	18 x 40	1016				
560	567	18 x 45	925	18 x 45	1112				

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size φD x L(mm)

Voltage (Code)		350V (2V)		400V (2G)		420V (2M)		450V (2W)	
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current
0.47	474	6.3 x 11	8						
1	105	6.3 x 11	18	6.3 x 11	19	6.3 x 11	15	6.3 x 11	16
2.2	225	6.3 x 11	25	8 x 12	30	8 x 12	29	8 x 12	24
3.3	335	8 x 12	40	8 x 12	35	8 x 12	35	8 x 12	29
4.7	475	8 x 12	43	8 x 12	40	10 x 16	52	10 x 16	42
10	106	10 x 16	73	10 x 16	78	10 x 20	85	12.5 x 20	84
18	186	12.5 x 20	100	12.5 x 20	105	12.5 x 25	124	10 x 30	108
22	226	12.5 x 20	150	12.5 x 20	148	12.5 x 25	140	12.5 x 25	131
27	276	12.5 x 25	177	10 x 30	192	12.5 x 25	170	12.5 x 30	164
33	336	16 x 25	200	12.5 x 25	193	16 x 25	200	16 x 25	237
39	396	16 x 25	258	16 x 25	251	12.5 x 30	248	12.5 x 35	256
47	476	16 x 25	265	12.5 x 30	266	12.5 x 35	288	16 x 30	305
56	566	16 x 30	280	12.5 x 35	336	12.5 x 40	344	16 x 30	352
68	686	16 x 30	288	16 x 30	396	16 x 30	408	18 x 30	366
82	826	18 x 30	372	18 x 30	443	16 x 35	456	18 x 30	440
100	107	18 x 35	460	18 x 30	489	18 x 35	488	18 x 35	490
120	127			18 x 35	570	18 x 40	528	18 x 40	592
150	157			18 x 40	616	18 x 45	568	18 x 45	640
180	187			18 x 50	704				

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size φD x L(mm)

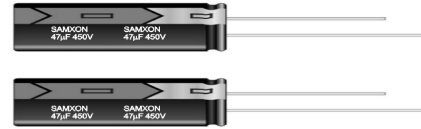
**RIPPLE CURRENT MULTIPLIER**

Frequency Coefficient							
Rated Voltage(V)	Cap(μF)	Coefficient	50	120	300	1k	10k~
6.3 ~ 100	~ 47		0.75	1.00	1.35	1.57	2.00
	68 ~ 470		0.80	1.00	1.23	1.34	1.50
	≥ 560		0.85	1.00	1.10	1.13	1.15
160 ~ 450	0.47 ~ 220		0.80	1.00	1.25	1.40	1.60
	≥ 270		0.90	1.00	1.10	1.13	1.15

Specifications are subject to change without notice. Should a safety or technical concern arise regarding the product, please be sure to contact our sales offices or agents immediately.

**FEATURES**

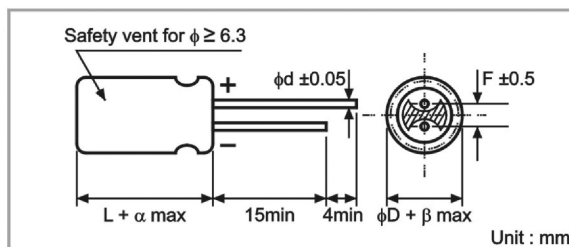
- 1. 105°C high temperature and high voltage, load life : 2000 hours.
- 2. For slim size adaptor, LCD/LED-TV and LCD-Monitor power.



**SPECIFICATIONS**

Item	Performance Characteristics							
Operating Temperature Range	-25 to +105°C							
Rated Working Voltage Range	200 to 450V							
Nominal Capacitance Range	22 to 270µF							
Capacitance Tolerance	±20% (120Hz, +20°C)							
Leakage Current	I ≤ 0.03CV + 40(µA) after 2 minutes application of rated working voltage at +20°C							
tan δ (120Hz, +20°C)	Working Voltage (V)	200	220	250	400	420	450	
	tan δ (Max.)	0.20	0.20	0.20	0.24	0.24	0.24	
Low Temperature Characteristics	Impedance ratio max. at 120Hz							
	Rated Voltage (V)	200	220	250	400	420	450	
	Z-25°C / Z+20°C	4	4	6	8	8	15	
High Temperature Loading	Test conditions				Post test requirements at +20°C			
	Duration	: 2000 hours			Leakage current : ≤ Initial specified value			
	Ambient temp.	: +105°C			Cap. change : within ±20% of initial measured value			
	Applied voltage	: Rated DC working voltage with rated ripple current			tan δ : ≤ 200% of initial specified value			
Shelf Life	Test conditions				Post test requirements at +20°C			
	Duration	: 1000 hours			Leakage current : ≤ Initial specified value			
	Ambient temp.	: +105°C			Cap. Change : within ±20% of initial measured value			
	Applied voltage	: (None)			tan δ : ≤ 200% of initial specified value			
Others	JIS C - 5101 (IEC 60384)							

**CASE SIZE TABLE**

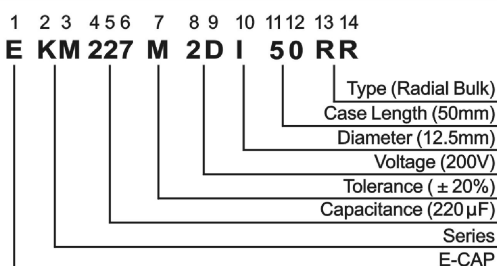


φD	10	12.5						
F	5.0	5.0						
φd	0.6	0.6						
α								2.0
β								1.0

**RIPPLE CURRENT MULTIPLIER**

Frequency Coefficient						
Cap(µF)	Coefficient	50	120	300	1k	10k~
200~450		0.80	1.00	1.25	1.40	1.60

**PART NUMBER SYSTEM(EXAMPLE:200V220 µ F)**



# KM Series

SAMXON®

+105°C, Pen Cap.(筆型電容)

## STANDARD RATINGS

Voltage (Code)		200V (2D)		220V (2N)		250V (2E)			
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current		
82	826					10x45	390		
100	107	10x40	410	10x45	420	10x50	430		
						12.5x35	440		
120	127	10x45	425	10x50	480	12.5x40	505		
		10x55	500	12.5x40	550	12.5x45	585		
		12.5x35	495						
180	187	12.5x40	560	12.5x45	630	12.5x55	625		
220	227	12.5x50	640	12.5x55	690				
270	277	12.5x60	695						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦDxL(mm)

Voltage (Code)		400V (2G)		420V (2M)		450V (2W)			
Cap.(μF)	Code	Case Size	Ripple Current	Case Size	Ripple Current	Case Size	Ripple Current		
22	226					10x35	135		
27	276					10x40	165		
33	336	10x40	245	10x40	215	10x45	200		
39	396	10x45	320	10x45	245	10x50	245		
						12.5x35	255		
47	476	10x50	360	10x55	295	10x60	300		
		12.5x35	350	12.5x35	285	12.5x40	305		
56	566	10x60	415	12.5x40	345	12.5x45	350		
		12.5x40	400						
68	686	12.5x45	465	12.5x50	400	12.5x50	390		
82	826	12.5x55	500	12.5x55	455	12.5x60	440		
100	107	12.5x60	520						

Maximum Allowable Ripple Current (mA rms) at 105°C 120Hz

Case Size ΦDxL(mm)

KM

Miniature Aluminum Electrolytic Capacitors

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