

# CapXon KM Series

## KM Series Standard 105

### Features

- Used in communication equipments, switching power supply, etc.
- Safety vent construction design.
- For detail specifications, please refer to Engineering Bulletin No. E102

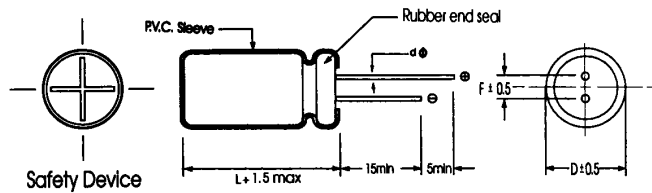


### Specifications

Item	Performance Characteristics																																			
Operating Temperature Range	-40 to +105	-25 to +105																																		
Rate Voltage Range	6.3 to 100 VDC	160 to 450 VDC																																		
Capacitance Range	0.1 to 15000 $\mu$ F	0.47 to 220 $\mu$ F																																		
Capacitance Tolerance	$\pm$ 20% (120Hz, +20 )																																			
Leakage Current(+20 , max)	I 0.01 CV or 3 ( $\mu$ A) After 1 minute whichever is greater measured with rated working voltage applied.	I 0.03 CV ( $\mu$ A) After 1 minute with rated working voltage applied.																																		
Dissipation Factor(tan )	<table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>D.F. (%)max.</td> <td>22</td> <td>19</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>9</td> <td>8</td> </tr> </table>									Working Voltage(VDC)	6.3	10	16	25	35	50	63	100	D.F. (%)max.	22	19	16	14	12	10	9	8									
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D.F. (%)max.	12	12	12	15	15	17																														
For capacitance > 1000 $\mu$ F, add 2% per another 1000 $\mu$ F. (+20 , at 120Hz)																																				
Low Temperature Characteristics (120Hz)	Impedance ratio max.																																			
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	Working Voltage(VDC)	6.3	10	16	25	35	50	63	100																											
	Z-25 / Z+20	4	3	2	2	2	2	2	2																											
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Z-25 / Z+20	2	2	3	5	6	15																														
For Capacitance Value > 1000 $\mu$ F, Add 0.5 per another 1000 $\mu$ F for -25 / +20 Add 1 per another 1000 $\mu$ F for -40 / +20																																				
Load Life	Test conditions Duration time :2000Hrs Ambient temperature :+105 Applied voltage :Rated DC working voltage After test requirements at +20 Capacitance change : $\pm$ 20% of the initial measured value Dissipation factor : 200% of the initial specified value Leakage current : The initial specified value																																			
Shelf Life	Test conditions Duration time :1000Hrs Ambient temperature :+105 Applied voltage :None After test requirements at +20 :Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																																			

# CapXon KM Series

Diagram of Dimensions: (Unit:mm)



D	5	6.3	8	10	13	16	18	22
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10
d	0.5			0.6		0.8		

## Case Size

WV(SV) μF	DxL(mm)													
	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.1	→	→	→	→	→	5x11	5x11	5x11	—	—	—	—	—	—
0.22	→	→	→	→	→	5x11	5x11	5x11	—	—	—	—	—	—
0.33	→	→	→	→	→	5x11	5x11	5x11	—	—	—	—	—	—
0.47	→	→	→	→	→	5x11	5x11	5x11	5x11	5x11	5x11	6.3x11	6.3x11	6.3x11
1	→	→	→	→	→	5x11	5x11	5x11	6.3x11	6.3x11	6.3x11	6.3x11	8x11.5	8x11.5
2.2	→	→	→	→	→	5x11	5x11	5x11	6.3x11	6.3x11	8x11.5	10x12.5	10x12.5	10x16
3.3	→	→	→	→	→	5x11	5x11	5x11	6.3x11	8x11.5	8x11.5	10x16	10x16	10x20
4.7	→	→	→	5x11	5x11	5x11	5x11	5x11	8x11.5	8x11.5	10x12.5	10x16	10x16	10x20
10	→	→	5x11	5x11	5x11	5x11	6.3x11	6.3x11	10x16	10x16	10x20	10x20	13x20	13x25
22	→	5x11	5x11	5x11	5x11	6.3x11	6.3x11	8x11.5	10x20	10x20	13x20	13x25	16x25	16x31.5
33	5x11	5x11	5x11	5x11	5x11	6.3x11	8x11.5	10x12.5	10x20	13x20	13x25	16x25	16x31.5	16x35.5
47	5x11	5x11	5x11	6.3x11	6.3x11	6.3x11	8x11.5	10x16	13x25	13x25	13x25	16x31.5	16x35.5	—
100	5x11	6.3x11	6.3x11	6.3x11	8x11.5	10x12.5	10x16	13x20	16x25	16x25	16x31.5	—	—	—
220	6.3x11	6.3x11	8x11.5	10x12.5	10x12.5	10x16	10x20	16x25	16x35.5	—	—	—	—	—
330	8x11.5	8x11.5	8x11.5	10x12.5	10x16	10x20	13x20	16x31.5	—	—	—	—	—	—
470	8x11.5	8x11.5	10x12.5	10x16	10x20	13x20	13x25	16x31.5	—	—	—	—	—	—
1000	10x12.5	10x16	10x20	13x20	13x25	16x25	16x31.5	—	—	—	—	—	—	—
2200	10x20	13x20	13x25	16x25	16x31.5	18x35.5	—	—	—	—	—	—	—	—
3300	13x20	13x25	16x31.5	16x35.5	18x35.5	18x35.5	—	—	—	—	—	—	—	—
4700	13x25	16x25	16x31.5	16x35.5	18x41	—	—	—	—	—	—	—	—	—
6800	16x25	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—	—	—	—
10000	16x31.5	18x35.5	18x41	—	—	—	—	—	—	—	—	—	—	—
15000	18x35.5	—	—	—	—	—	—	—	—	—	—	—	—	—

# CapXon KM Series

## Maximum Ripple Current

(mA, rms, 120Hz at 105 °C)

WV(SV) \ μF	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)	100 (125)	160 (200)	200 (250)	250 (300)	350 (400)	400 (450)	450 (500)
0.1	→					8	8	10	—	—	—	—	—	—
0.22	→					8	8	10	—	—	—	—	—	—
0.33	→					8	8	10	—	—	—	—	—	—
0.47	→					8	8	10	12	12	12	14	14	14
1	→					12	12	15	17	17	17	20	20	20
2.2	→					20	20	23	25	25	29	35	35	35
3.3	→					25	28	32	36	36	42	47	47	54
4.7	→			26	28	30	34	37	43	50	50	55	55	60
10	→		35	38	41	46	50	56	59	59	64	79	79	87
22	→	49	54	57	60	68	82	96	96	96	110	130	145	165
33	54	60	64	69	75	90	100	120	125	140	140	175	185	210
47	65	70	99	105	110	125	135	160	165	165	180	230	240	—
100	95	105	125	135	170	180	225	245	270	285	310	—	—	—
220	160	175	215	230	300	345	400	450	480	—	—	—	—	—
330	195	245	260	335	400	460	540	700	—	—	—	—	—	—
470	270	290	370	440	520	610	700	880	—	—	—	—	—	—
1000	460	550	640	770	920	1080	1210	—	—	—	—	—	—	—
2200	810	860	1000	1170	1340	1530	—	—	—	—	—	—	—	—
3300	960	1100	1300	1460	1650	1750	—	—	—	—	—	—	—	—
4700	1330	1400	1600	1780	1900	—	—	—	—	—	—	—	—	—
6800	1500	1690	1900	1950	—	—	—	—	—	—	—	—	—	—
10000	1760	1950	2060	—	—	—	—	—	—	—	—	—	—	—
15000	2075	—	—	—	—	—	—	—	—	—	—	—	—	—

## Multiplier for Ripple Current vs. Frequency

CAP(μF) \ Hz		50(60)	120	400	1K	10K	50K-100K
Multiplier	CAP 10	0.8	1	1.30	1.30	1.65	1.70
	10 < CAP 100	0.8	1	1.23	1.23	1.48	1.53
	100 < CAP 1000	0.8	1	1.16	1.16	1.35	1.38
	1000 < CAP	0.8	1	1.11	1.11	1.25	1.28

## Multiplier for Ripple Current vs. Temperature

Temperature	45	60	70	85	105
Multiplier	2.10	1.90	1.40	1.25	1.00