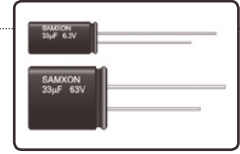


**FEATURES**

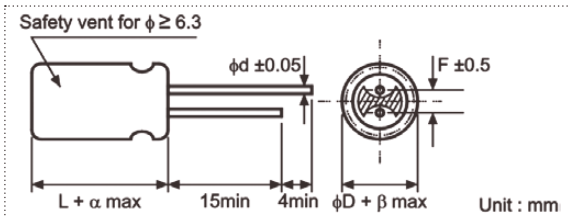
➤ Standard non-polarized series for entertainment electronics.



**SPECIFICATIONS**

Item	Performance Characteristics																											
Operating Temperature Range	-40 to +85°C																											
Rated Working Voltage Range	6.3 to 100V																											
Nominal Capacitance Range	2.2 to 6800µF																											
Capacitance Tolerance	±20% at 120Hz, +20°C																											
Leakage Current	I ≤ 0.03CV or 3 (µA) whichever is greater measured after 5 minutes application of rated working voltage at +20°C																											
tan δ (120Hz, +20°C)	<table border="1"> <tr> <td>Working Voltage (V)</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>Tan δ (max.)</td> <td>0.26</td> <td>0.24</td> <td>0.22</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> </tr> </table>	Working Voltage (V)	6.3	10	16	25	35	50	63	100	Tan δ (max.)	0.26	0.24	0.22	0.20	0.16	0.14	0.12	0.10									
	Working Voltage (V)	6.3	10	16	25	35	50	63	100																			
Tan δ (max.)	0.26	0.24	0.22	0.20	0.16	0.14	0.12	0.10																				
For capacitance value >1000µF, add 0.02 per another 1000µF																												
Low Temperature Characteristics	Impedance ratio max. at 120Hz																											
	<table border="1"> <tr> <td>Working Voltage (V)</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>Z-25°C / Z+20°C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>10</td> <td>8</td> <td>6</td> <td>5</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	Working Voltage (V)	6.3	10	16	25	35	50	63	100	Z-25°C / Z+20°C	4	3	2	2	2	2	2	2	Z-40°C / Z+20°C	10	8	6	5	4	4	3	3
	Working Voltage (V)	6.3	10	16	25	35	50	63	100																			
Z-25°C / Z+20°C	4	3	2	2	2	2	2	2																				
Z-40°C / Z+20°C	10	8	6	5	4	4	3	3																				
High Temperature Loading	Test time : 1,000 hours Test temperature : +85°C Test conditions : Rated DC working voltage to each polarity every 250 hours																											
	Post test requirements at +20°C Leakage current : ≤Initial specified value Cap. change : within ±20% of the initial measured value tan δ : ≤200% of the initial specified value																											
Shelf Life	At +85°C no voltage applied after 1,000 hours and then being stabilized at +20°C the capacitors shall meet the following limits Leakage current : ≤Initial specified value Cap. change : within ±20% of the initial measured value tan δ : ≤200% of the initial specified value																											
Industrial Standard	JIS C - 5101-4 (IEC 60384-4)																											

**CASE SIZE TABLE**



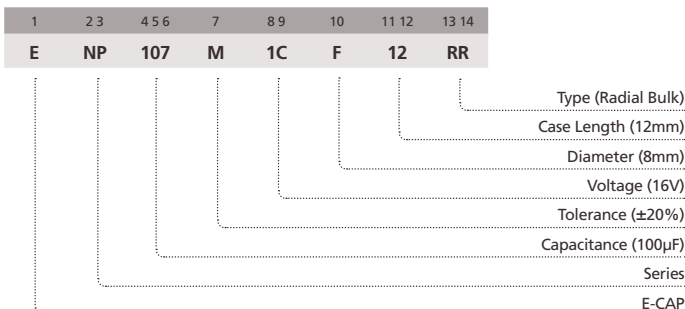
φD	5	6.3	8 (L < 20)	8 (L ≥ 20)	10	12.5	16	18
F	2.0	2.5	3.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α				(L < 20) 1.5				
β				(D < 20) 0.5				
					(D ≥ 20) 2.0			
					(D ≥ 20) 1.0			

**RIPPLE CURRENT MULTIPLIER**

**Frequency Coefficient**

Coefficient	50	120	300	1k	10k~
Cap (µF) ≤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

**PART NUMBER SYSTEM (EXAMPLE : 16V 100µF)**



NP

Miniature Aluminum Electrolytic Capacitors

## 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
4.7	475							5 x 11	26
10	106					5 x 11	42	5 x 11	42
22	226			5 x 11	57	5 x 11	57	6.3 x 11	65
33	336	5 x 11	64	5 x 11	64	5 x 11	70	6.3 x 11	80
47	476	5 x 11	76	5 x 11	76	6.3 x 11	95	6.3 x 11	95
100	107	6.3 x 11	125	6.3 x 11	125	8 x 12	160	8 x 12	160
220	227	8 x 12	215	8 x 12	215	10 x 12.5	275	10 x 16	305
330	337	8 x 12	265	10 x 16	345	10 x 16	375	12.5 x 20	450
470	477	10 x 12.5	370	10 x 16	410	10 x 20	485	12.5 x 20	540
1000	108	10 x 20	650	12.5 x 20	720	12.5 x 25	855	16 x 25	950
2200	228	12.5 x 25	1160	16 x 25	1280	16 x 30	1510	18 x 35	1620
3300	338	16 x 25	1570	16 x 30	1690	18 x 35	1980		
4700	478	16 x 30	2020	18 x 35	2160				
6800	688	18 x 35	2600						

Maximum Allowable Ripple Current (mArms) at 85°C 120Hz

Case Size  $\Phi$ D 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
2.2	225			5 x 11	25			6.3 x 11	34
3.3	335			5 x 11	27	5 x 11	28	6.3 x 11	39
4.7	475	5 x 11	34	5 x 11	34	6.3 x 11	34	6.3 x 11	47
10	106	5 x 11	43	6.3 x 11	52	6.3 x 11	57	8 x 12	71
22	226	6.3 x 11	73	8 x 12	89	8 x 12	95	10 x 16	135
33	336	8 x 12	100	8 x 12	105	10 x 12.5	135	12.5 x 20	220
47	476	8 x 12	120	10 x 12.5	150	10 x 16	180	12.5 x 20	240
68	686			10 x 16	198				
100	107	10 x 16	230	10 x 20	265	12.5 x 20	320	16 x 25	425
220	227	12.5 x 20	410	12.5 x 25	480	16 x 25	575	18 x 35	720
330	337	12.5 x 20	505	16 x 25	650	16 x 30	655		
470	477	12.5 x 25	655	16 x 30	835	18 x 35	965		
1000	108	16 x 30	1140						

Maximum Allowable Ripple Current (mArms) at 85°C 120Hz

Case Size  $\Phi$ D x L (mm)