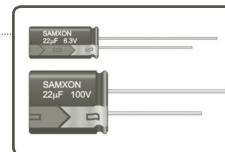


FEATURES

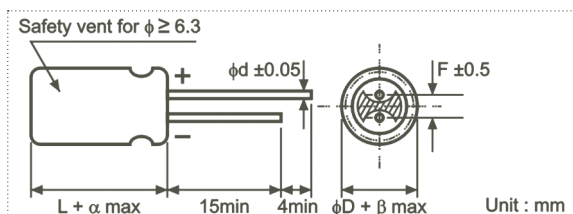
- Standard, for audio equipment.
- Low distortion ratio ensured with anti-vibration structures.



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 10000µF																											
Capacitance Tolerance	±20% at 120Hz, +20°C																											
Leakage Current	I ≤ 0.01CV or 3 (µA) whichever is greater measured after 2 minutes application of rated working voltage at +20°C																											
tan δ (120Hz, +20°C)	<table border="1"> <thead> <tr> <th>Working Voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>tan δ (max.)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table>	Working Voltage (V)	6.3	10	16	25	35	50	63	100	tan δ (max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08									
	Working Voltage (V)	6.3	10	16	25	35	50	63	100																			
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For capacitance value >1000µF, add 0.02 per another 1000µF																												
Low Temperature Characteristics	Impedance ratio max. at 120Hz																											
	<table border="1"> <thead> <tr> <th>Working Voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <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>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </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	8	6	4	4	3	3	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	8	6	4	4	3	3	3	3																				
High Temperature Loading	Test time : 1,000 hours Test temperature : +85°C Test conditions : Rated DC working voltage with rated ripple current																											
	Post test requirements at +20°C Leakage current : ≤ Initial specified value Cap. change : within ±20% of the initial measured value tan δ : ≤ 150% 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 : ≤ 150% 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			(L ≥ 20) 2.0				
β	(D < 20) 0.5			(D ≥ 20) 1.0				

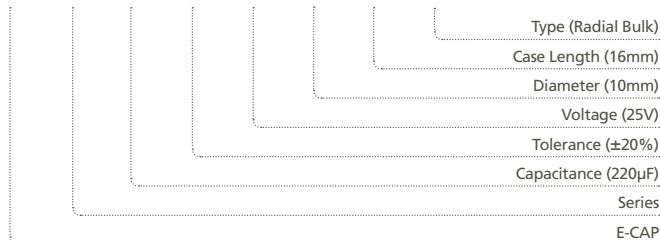
RIPPLE CURRENT MULTIPLIER

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 : 25V 220µF)

1	23	456	7	89	10	1112	1314
E	FA	227	M	1E	G	16	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
4.7	475							5 x 11	22
10	106					5 x 11	31	5 x 11	32
22	226	5 x 11	36	5 x 11	41	5 x 11	46	5 x 11	50
33	336	5 x 11	46	5 x 11	51	5 x 11	57	6.3 x 11	70
47	476	5 x 11	55	5 x 11	60	6.3 x 11	74	6.3 x 11	85
100	107	6.3 x 11	88	6.3 x 11	99	8 x 12	128	8 x 12	140
220	227	8 x 12	155	8 x 12	170	10 x 12.5	226	10 x 16	260
330	337	10 x 12.5	226	10 x 12.5	247	10 x 16	309	10 x 20	351
470	477	10 x 12.5	270	10 x 16	330	10 x 20	406	12.5 x 20	476
1000	108	10 x 20	485	12.5 x 20	601	12.5 x 25	723	16 x 25	854
2200	228	12.5 x 25	867	16 x 25	1047	16 x 25	1209	16 x 35	1570
3300	338	16 x 25	1135	16 x 30	1520	16 x 25	1720	18 x 40	1794
4700	478	16 x 30	1431	16 x 35	1840	18 x 35	2140		
6800	688	18 x 35	1810	18 x 40	2049				
10000	109	18 x 40	2100						

Maximum Allowable Ripple Current (mArms) at 85°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
2.2	225			5 x 11	18			5 x 11	22
3.3	335			5 x 11	22			5 x 11	27
4.7	475	5 x 11	24	5 x 11	27			5 x 11	36
10	106	5 x 11	36	5 x 11	39	6.3 x 11	50	8 x 12	65
22	226	6.3 x 11	60	6.3 x 11	65	8 x 12	85	10 x 12.5	110
33	336	6.3 x 11	75	8 x 12	93	8 x 12	105	10 x 16	150
47	476	8 x 12	101	8 x 12	111	10 x 12.5	140	10 x 20	190
100	107	10 x 12.5	176	10 x 16	215	10 x 20	255	12.5 x 20	300
220	227	10 x 20	320	12.5 x 20	390	12.5 x 20	420	16 x 25	549
330	337	12.5 x 20	446	12.5 x 20	488	12.5 x 25	541	16 x 30	734
470	477	12.5 x 25	590	16 x 25	650	16 x 25	840	18 x 35	980
1000	108	16 x 25	1060	16 x 30	1143	18 x 35	1400		
2200	228	18 x 35	1840						

Maximum Allowable Ripple Current (mArms) at 85°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.