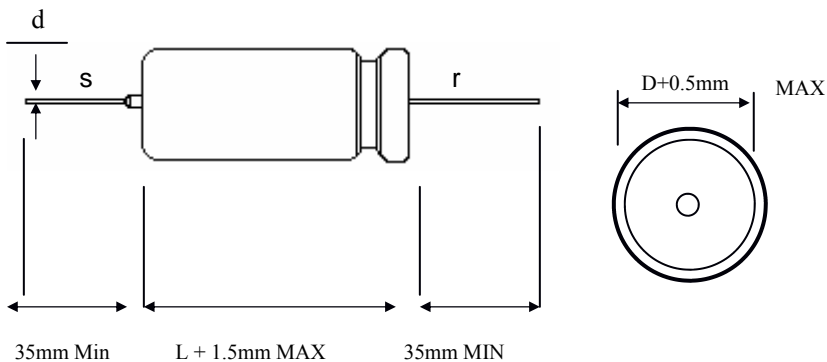


- Industrial, Automotive, Audio, Video, Lighting
- Low voltage

## ■ SPECIFICATIONS

Item	Characteristics																																																																												
Operating Temperature Range (°C)	-40°C + 105°C																																																																												
Rated Voltage Range (V)	6.3V ~ 400V																																																																												
Rated Capacitance Range	0.47 μF ~ 22,000 μF																																																																												
Rated Capacitance Tolerance (25°C 120Hz)	±20%(M) 120HZ 25°C																																																																												
Leakage Current	0.01 CV μ A MAXIMUM 0.01CV>3																																																																												
Dissipation Factor Tan δ at 25°C, 120HZ	Tan δ values to be increased by 0.02 per 1000 μ F for capacitance values greater than 1000 μ F																																																																												
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## ■ LEAD DIMENSIONS:

D	5	6	8	10	13	16	18	22	25
d	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8	0.8

DIMENSIONS D X L & PERMISSIBLE RIPPLE CURRENTS mA RMS MAX. AT 120HZ 105°C

W.V.	6.3		10		12		16		25		35		40	
S.V μF	8		13		15		20		32		44		50	
0.47														
1									5x11	9				
1.5														
2									5x12	14				
2.2														
3.3														
4									6x13	22				
4.7														
6.8														
10							6x20	32	5x13	31	5x13	35		
15											6x13	45		
22							5x13	41	5x11	42	6x11	49		
									6x13	49	6x13	54		
30														
33							5x11	57	6x11	70	6x16	75		
							5x13	50	6x13	59				
47			5x11	60			6x11	77	6x16	80	8x16	106	8x16	113
			5x13	55			6x13	67						
50					8x16	89			8x16	95				
									8x20	106				
68			6x13	74			6x16	91	8x16	114	8x20	140		
100	6x11	91	6x16	101			8x16	130	6x16	130	8x20	170		
									8x16	138				
									10x24	205				

DIMENSIONS D X L & PERMISSIBLE RIPPLE CURRENTS mA RMS MAX. AT 120HZ 105°C

W.V.	6.3		10		12		16		25		35		40	
S.V μF	8		13		15		20		32		44		50	
140					8x16	155								
150			8x16	147			8x16	159	8x20	186	10x21	272		
220			6x16	160			8x20	212	8x16	220	8x20	260		
			8x16	178					10x21	262	10x20			
330											10x24	309		
	8x16	196	8x20	239			8x16	260	8x20	300	10x20	360		
470							10x21	301	10x24	339	10x30	416		
	10x21	297	8x16	270			8x20	330	10x24	410	10x25	480	10x30	539
			10x21	332			10x24	380	13x24	473	13x32	594	13x32	634
680														
	10x21	357	10x21	422			10x30	502	13x24	569	13x36	750		
1000														
	10x24	457	10x20	500			10x21	561	13x25	720	13x30	840		
			10x30	561			10x24	600	13x32	774	13x40	952		
							10x26	624						
1500							10x30	670						
							13x24	648						
2200	13x24	642	13x24	714			16x32	980	16x32	1039	16x40	1262		
	13x24	762	13x25	850			13x32	1010	16x25	1110	16x30	1270	18x40	1684
			13x32	951			16x32	1156	16x40	1338	16x40	1466		
3300											18x40	1576		
	13x25	920	13x30	1080			16x25	1210	16x30	1656	16x40	1540	18x40	1965
4700	13x36	1063	13x40	1226			16x40	1470	18x40	1380	22x40	2033		
	13x30	1150	16x25	1270			16x30	1490	18x40	1690	22x40	1880	22x40	2294
6800	16x32	1278	16x32	1389			18x40	1720	22x51	2242	25x51	2583		
	18x40	1710	16x30	1530			16x40	1740	22x40	1950	22x50	2140		
10000			18x40	1837			22x51	2394	25x51	2652	25x51	2303		
	22x40	2172	22x40	2306			22x40	2050	22x50	2230	25x50	2513		
15000	16x40	1700	18x40	1840			22x51	2672	25x59	3114				
22000	18x40	1910	22x40	2100			22x50	2310	25x50	2601	25x70	3100		
	22x40	2150	22x50	2340			25x50	2651	25x70	3150				





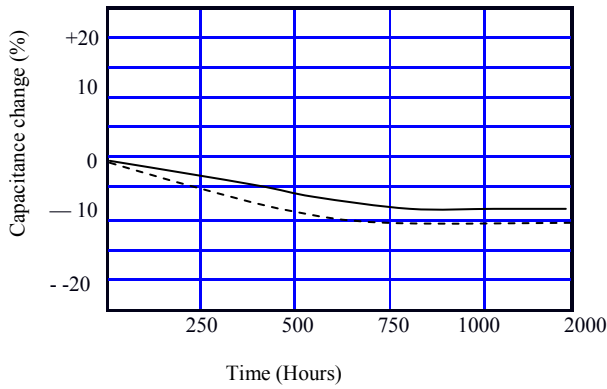


----- 220 $\mu$ F 35V  
 \_\_\_\_\_ 2,200 $\mu$ F 25V

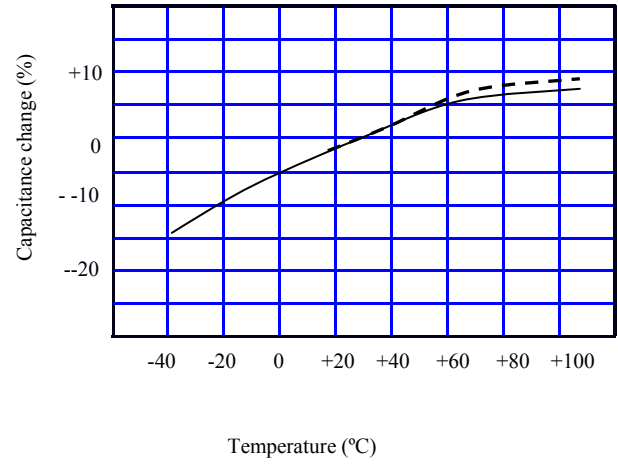
## TEMPERATURE CHARACTERISTICS

### LIFE TEST

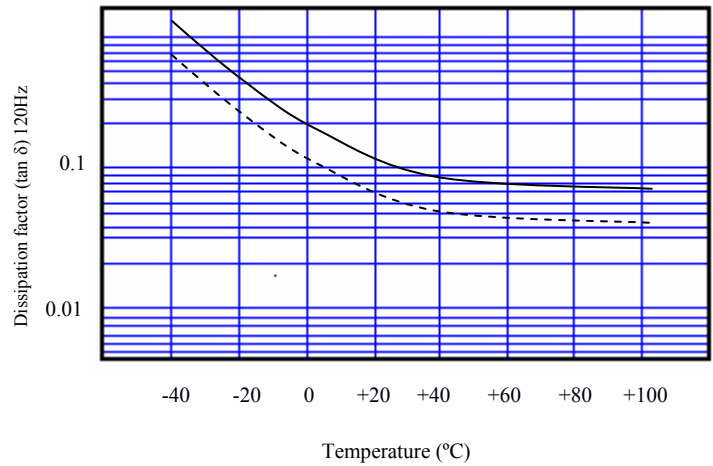
Capacitance change vs. time (at +100°C)



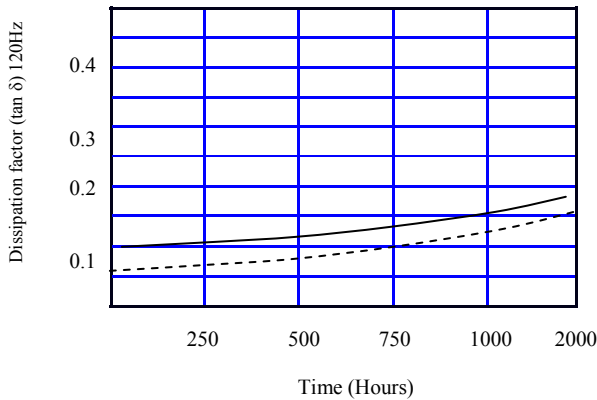
Capacitance change vs. temperature



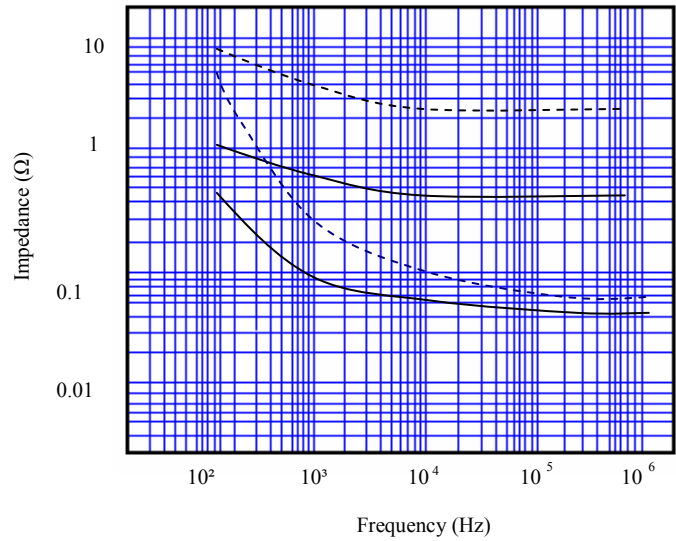
Dissipation factor vs. temperature



Dissipation factor vs. time (at +105°C)



Impedance vs. frequency



Leakage current vs. time (at +105°C)

