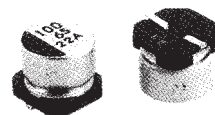


FEATURES

- 85°C, 2000 hours assured
- RoHS Compliant
- Voltages up to 450vdc

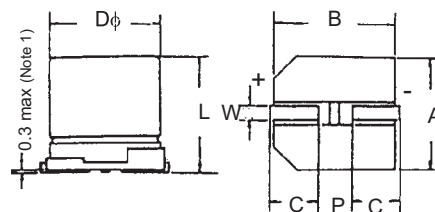


SPECIFICATIONS

Item	Performance													
Operating Temp. Range	-40°C ~ + 85°C													
Capacitance Tolerance	± 20% (120Hz, 20°C)													
Leakage Current (at 20°C)	I=0.01CV or 3µA (whichever is greater) after 2 minutes, where C=rated capacitance in F V=rated DC working Volts													
Dissipation Factor Tan δ at 120 Hz, 20°C	Rated Voltage	6.3	10	16	25	35	50	63	100	160 ~ 250	400 ~ 450			
	4 ~ 10φ	0.35	0.30	0.26	0.16	0.14	0.12	0.12	0.12	—	—			
	12.5 ~ 16φ	0.38	0.34	0.30	0.26	0.22	0.18	0.14	0.10	0.20	0.25			
Low Temperature Characteristics (at 120Hz)	Rated Voltage			6.3	10	16	25	35	50	63	100	160-250	400-450	
	Impedance Ratio	Z(-25°C) / Z(+20°C)		4 ~ 10		4	4	3	2	2	2	3	—	—
				12.5 ~ 16		—	5	4	2	3	2	2	3	6
		Z(-40°C) / Z(+20°C)		D≤10		17	10	8	4	3	3	3	4	—
		D≥10		—	12	10	5	4	3	3	3	6	10	
Life Test	Test Time		Load Life					Shelf Life						
			2000 Hrs					1000 Hrs						
	Capacitance Change		Within ±20% of initial value					Within ± 20% of initial value						
	Dissipation Factor		Less than 200% of specified value					Less than 200% of specified value						
	Leakage Current		Within specified value					Within specified value						
	Test Conditions		20°C (after rated voltage applied for 2000 hours at 85°C)					20° C (after storage for 1000 hours at 85°C without voltage)						
Ripple Current & Frequency Multipliers	VDC(V) \ Freq. (Hz)	50,60	120	1K	10K up									
	6.3 ~ 35	0.64	0.8	0.93	1.0									
Standards	JLS C 5101-1, -18													

PAD SPACING AND DIAMETER

φD	L	A	B	C	W	P±0.2
4	5.3±0.2	4.3	4.3	2.0	0.5 to 0.8	1.0
5	5.3±0.2	5.3	5.3	2.3	0.5 to 0.8	1.5
6.3	5.3±0.2	6.6	6.6	2.7	0.5 to 0.8	2.0
6.3	7.7±0.3	6.6	6.6	2.7	0.5 to 0.8	2.0
8	10±0.3	8.4	8.4	3.0	0.7 to 1.1	3.1
10	10±0.3	10.4	10.4	3.3	0.7 to 1.1	4.7
12.5	1.3±0.3	12.8	12.8	4.9	1.1 to 1.4	4.6
12.5	16±0.3	12.8	12.8	4.9	1.1 to 1.4	4.6
16	16.5±0.3	16.3	16.3	5.8	1.8 to 2.2	6.0



Note 1-Diameters of 12.5mm & 16mm diameter is 0.4mm Max

PART NUMBER EXAMPLE VEA 220 MI A TR 040 053

DIMENSION & PERMISSIBLE RIPPLE CURRENT

Dimension: $\phi D \times L$ (mm)
Ripple Current mA/rms at 120Hz, 85°C

VDC		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
μF	Contents	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1	0R1											4 x 5.3	3
0.22	R22											4 x 5.3	5
0.33	R33											4 x 5.3	6
0.47	R47											4 x 5.3	7
1	010											4 x 5.3	10
2.2	2R2											4 x 5.3	15
3.3	3R3											4 x 5.3	15
4.7	4R7							4 x 5.3	19	4 x 5.3	18	4 x 5.3	18
10	100			4 x 5.3	26	4 x 5.3	26	4 x 5.3	24	4 x 5.3	24	5 x 5.3	30
22	220	4 x 5.3	30	4 x 5.3	26	4 x 5.3	26	5 x 5.3	41	5 x 5.3	41	6.3 x 5.3	47
33	330	4 x 5.3	30	5 x 5.3	30	5 x 5.3	37	5 x 5.3	47	6.3 x 5.3	54	6.3 x 7.7	70
47	470	4 x 5.3	33	5 x 5.3	44	5 x 5.3	44	6.3 x 5.3	60	6.3 x 5.3	64	6.3 x 7.7	85
100	101	5 x 5.3	55	6.3 x 5.3	70	6.3 x 5.3	70	6.3 x 7.7	120	6.3 x 7.7	120	8 x 10	190
220	221	6.3 x 5.3	88	6.3 x 7.7	130	6.3 x 7.7	130	8 x 10	260	8 x 10	260	10 x 10	320
330	331	6.3 x 7.7	135	8 x 10	270	8 x 10	270	8 x 10	300	10 x 10	360	12.5 x 13.5	600
470	471	8 x 10	280	8 x 10	280	8 x 10	280	10 x 10	400	12.5 x 13.5	600	12.5 x 16	740
1000	102	8 x 10	430	10 x 10	430	12.5 x 13.5	710	12.5 x 13.5	820	16 x 16.5	1100		
2200	222	12.5 x 13.5	890	12.5 x 13.5	960	16 x 16.5	1150	16 x 16.5	1450				
3300	332	12.5 x 16	1000	16 x 16.5	1300	16 x 16.5	1150						
4700	472	16 x 16.5	1400	16 x 16.5	1300								
6800	682	16 x 16.5	1700										

VDC		63V (1J)		100V (2A)		160V (2C)		200V (2D)		250V (2E)		400V (2GH)	
μF	Contents	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA	$\phi D \times L$	mA
0.1	0R1	4 x 5.3	1.3										
0.22	R22	4 x 5.3	30										
0.33	R33	4 x 5.3	4										
0.47	R47	4 x 5.3	5										
1	010	4 x 5.3	8										
2.2	2R2	4 x 5.3	12										
3.3	3R3	5 x 5.3	17										
4.7	4R7	5 x 5.3	20									12.5 x 13.5	120
10	100	6.3 x 5.3	32	8 x 10	90					12.5 x 13.5	150	12.5 x 13.5	120
22	220	6.3 x 7.7	60	8 x 10	90			12.5 x 13.5	240	12.5 x 13.5	150	16 x 16.5	140
33	330	6.3 x 7.7	60	10 x 10	120	12.5 x 13.5	240	12.5 x 16	310	12.5 x 16	240	16 x 16.5	340
47	470	8 x 10	130	10 x 10	120	12.5 x 16	370	16 x 16.5	340	16 x 16.5	340		
68	680	10 x 10	170	12.5 x 13.5	380	16 x 16.5	500	16 x 16.5	340				
100	101	12.5 x 13.5	380	12.5 x 13.5	380								
220	221	12.5 x 13.5	580	16 x 16.5	500								
330	331	12.5 x 16	720										
470	471	16 x 16.5	950										

VDC		450V (2W)	
μF	Contents	$\phi D \times L$	mA
4.7	4R7	12.5 x 13.5	120
10	100	12.5 x 16	130
22	220	16 x 16.5	140

PART NUMBER EXAMPLE VEA 220 MI A TR 040 053