

## Features

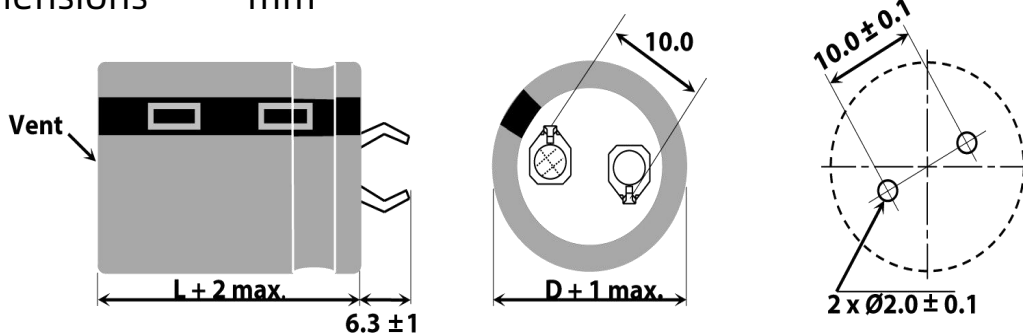
- © 2000h at +105°C, 焊针型, Snap-in Type
- © 宽电压, 大容量, 宽温度。Wide Voltage, Large capacitance, Wide temperature range



## Specifications

Item	Characteristics							
使用温度范围 Operating Temperature Range(°C)	-40 ~ +105				-25 ~ +105			
额定电压 Rated Voltage (V)	16 ~ 100				160 ~ 500			
标称容量 Nominal capacitance (µF)	100 ~ 100,000							
容量偏差 Capacitance Tolerance(20°C, 120Hz)	±20%							
漏电流 Leakage current (µA)	≤0.01CV or 1.5mA, which is smaller. (at 20°C ,after 5 minutes)							
损耗角正切值 Dissipation Factor(20°C, 120Hz)	Rated voltage (V)	16	25	35	50	63~100	160~400	400~500
	tanδ	0.5	0.4	0.35	0.3	0.2	0.15	0.2
耐久性 Load Life(+105°C)	时间 time	2000小时2000 hours						
	容量变化率Capacitance change	±20%初始测量值以内 Within±20% of the initial value						
	漏电流Leakage current	≤初始规定值 Not more than the Initial specified value						
	损耗角正切值Dissipation factor	≤200%初始规定值 Not more than 200% of the Initial specified value						
高温贮存 Shelf Life(+105°C)	时间 time	500小时500 hours						
	容量变化率Capacitance change	±20%初始测量值以内 Within±20% of the initial value						
	漏电流Leakage current	≤初始规定值 Not more than the Initial specified value						
	损耗角正切值Dissipation factor	≤200%初始规定值 Not more than 200% of the Initial specified value						
	试验后: 施加标称电压30分钟, 于24至48小时之间测试。 After test: UR to be applied for 30 minutes, 24 to 48 hours before measurement.							

## Dimensions mm



PC Board Mounting Holes

## Frequency Coefficient

Frequency(Hz) Voltage(V)	50,60	120	300	1k	≥10k
10 ~ 50	0.94	1.00	1.06	1.14	1.22
63 ~ 100	0.86	1.00	1.16	1.33	1.51
160 ~ 500	0.80	1.00	1.16	1.30	1.44

## Temperature Coefficient

Temperature (°C)	+40	+55	+70	+85	105
Coefficient	2.70	2.50	2.10	1.70	1.00

## Standard Ratings

WV (SV)	Cap.	Max ESR	Typ ESR	Ripple Current	Size $\phi$ DxL
		20°C 120Hz		105°C 120Hz	
V	$\mu$ F	m $\Omega$	m $\Omega$	Arms	mm
16(20)	10000	66	46	1.99	22x30
	12000	55	39	2.28	22x40
	15000	44	31	2.64	22x50
	18000	37	26	3.04	25x40
	22000	30	21	3.4	25x40
	27000	25	17	3.81	25x50
	33000	20	14	4.3	30x45
	39000	17	12	4.74	30x50
	47000	14	10	5.27	30x50
	56000	11	8	5.79	35x50
	68000	9	6	6.58	35x50
82000	6	4	7.2	35x70	
100000	4	2	8.35	35x80	
25(32)	8200	65	45	2.14	22x30
	10000	53	37	2.4	22x40
	12000	44	31	2.69	25x50
	15000	35	25	3.13	30x40
	18000	30	21	3.54	30x50
	22000	24	17	4.24	30x50
	27000	20	14	4.75	35x40
	33000	16	11	5.39	35x50
	39000	12	9	5.83	35x60
	47000	9	6	6.24	35x70
35(44)	4700	99	69	1.78	22x40
	5600	83	58	2.02	22x40
	6800	68	48	2.28	22x40
	8200	57	40	2.6	25x40
	10000	46	33	2.92	25x40
	12000	39	27	3.28	30x40
	15000	31	22	3.74	30x50
	18000	26	18	4.16	30x50
	22000	21	15	4.92	30x50
	27000	16	12	5.61	35x50
	33000	12	9	6.23	35x60
47000	8	7	6.86	35x80	
50(63)	3300	121	84	2	22x30
	4700	85	59	2.56	22x40
	5600	71	50	2.81	25x40
	6800	59	41	3.37	25x40
	8200	49	34	3.71	25x50
	10000	40	28	4.09	30x50
	12000	33	23	4.5	30x50
	15000	26	17	4.95	30x50

WV (SV)	Cap.	Max ESR	Typ ESR	Ripple Current	Size $\phi$ DxL
		20°C 120Hz		105°C 120Hz	
V	$\mu$ F	m $\Omega$	m $\Omega$	Arms	mm
50(63)	18000	19	12	5.5	35x50
	22000	12	7	6.12	35x50
63(79)	2200	121	84	1.73	22x30
	3300	80	56	2.32	22x40
	4700	57	40	2.88	25x40
	5600	47	33	3.28	25x50
	6800	39	27	3.73	25x50
	8200	32	23	4.16	30x40
	10000	27	19	4.69	35x50
	12000	22	15	5.28	35x60
	15000	17	11	5.69	35x60
	18000	10	7	6.1	35x80
	80(100)	1500	177	124	1.61
2200		121	84	2.09	25x40
3300		80	56	2.76	25x50
4700		57	40	3.56	30x50
5600		47	33	3.87	30x50
6800		39	27	4.19	30x60
8200		29	20	4.78	35x50
10000		18	13	5.51	35x50
12000		8	6	6.28	35x70
100(125)		1000	265	186	1.54
	1200	221	155	1.74	22x40
	1500	177	124	1.99	22x40
	2200	121	84	2.57	25x40
	3300	80	56	3.32	30x50
	4700	57	40	4.14	30x60
	5600	35	24	4.89	35x50
	6800	20	14	5.67	35x60
	8200	8	6	6.3	35x60
160(200)	470	424	296	1.52	22x40
	560	355	249	1.62	22x40
	680	293	205	1.7	22x50
	820	243	170	1.98	25x40
	1000	199	139	2.04	25x50
	1500	133	93	2.46	30x40
	2200	91	63	3.1	35x50
	3300	60	42	4.33	35x60
	3900	27	19	5.56	35x70
	200(250)	220	905	633	1.08
330		603	422	1.3	22x30
470		424	296	1.5	22x40
560		355	249	1.58	22x50

## Standard Ratings

WV (SV)	Cap.	Max ESR	Typ ESR	Ripple Current	Size φDxL
		20°C 120Hz		105°C 120Hz	
V	μF	mΩ	mΩ	Arms	mm
200(250)	680	293	205	1.7	22x50
	820	243	170	1.87	25x50
	1000	199	139	2.2	30x50
	1200	166	116	2.22	30x50
	1500	133	93	2.6	35x50
	1800	111	77	2.7	35x60
	2200	91	63	3.2	35x60
	2700	68	47	3.89	35x70
250(300)	220	905	633	11.0	22x30
	330	603	422	1.2	22x40
	470	424	296	1.3	25x40
	560	355	249	1.59	25x50
	680	293	205	1.7	25x50
	820	243	170	1.83	30x40
	1000	199	139	1.9	30x50
	1200	166	116	2.1	35x50
	1500	133	93	2.7	35x60
	1800	111	77	2.92	35x70
2200	86	59	3.5	35x80	
315(365)	220	905	498	0.91	22x40
	330	603	332	1.1	25x50
	470	424	233	1.28	30x45
	560	355	196	1.5	30x50
	680	293	161	1.85	35x40
	820	242	133	2.1	35x50
	1000	199	109	2.42	35x60
350(400)	220	905	498	1.0	25x40
	330	603	332	1.16	25x40
	470	424	233	1.4	25x50
	560	355	196	1.51	30x50
	680	293	161	1.9	35x50
	820	242	133	2.25	35x50
	1000	199	109	2.5	35x60
	1200	145	76	2.87	35x70
1500	101	42	3.1	35x80	
400(450)	100	1990	1035	0.6	22x30
	120	1659	863	0.6	22x30
	150	1327	690	0.7	22x35
	220	905	471	0.9	22x40
	330	603	314	1.11	25x50
	470	424	220	1.3	30x45
	560	355	185	1.5	35x45
	680	293	153	1.9	35x50

WV (SV)	Cap.	Max ESR	Typ ESR	Ripple Current	Size φDxL
		20°C 120Hz		105°C 120Hz	
V	μF	mΩ	mΩ	Arms	mm
400(450)	820	242	126	2.2	35x60
	1000	199	109	2.6	35x70
	1200	145	86	3	35x80
450(500)	100	2654	1327	0.7	22x30
	150	1769	885	0.82	22x40
	220	1206	603	0.94	25x40
	330	804	402	1.15	30x50
	470	565	282	1.5	35x50
	560	473	237	1.7	35x50
	680	391	196	2	35x60
	820	324	162	2.2	35x70
500(550)	1000	265	139	2.6	35x80
	100	2654	1327	0.67	25x40
	150	1769	885	0.85	25x50
	220	1206	603	1.12	30x50
	330	804	402	1.4	35x50
	470	565	282	1.8	35x60
	560	473	237	1.9	35x70
	680	391	196	2.2	35x80