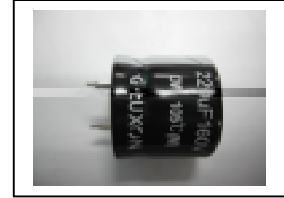


DW Series

Features  
 Lifetime: 105 , 2000hrs  
 , with 20mm height  
 Snap-in terminal  
 Large ripple current

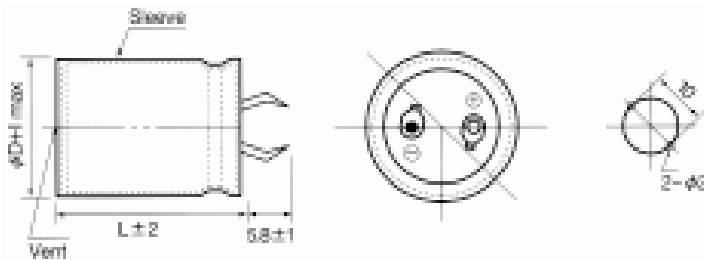
Recommended Applications  
 Smoothing circuit  
 Adapter



## Specifications

Items	Characteristics																
Capacitance Tolerance	±20% (M) (120Hz, 20 )																
Rated Voltage Range (WV)	10~100 VDC										160~450 VDC						
Operating Temperature Range	-40 ~ +105										-25 ~ +105						
Surge Voltage (V) (20 )	WV	10	16	25	35	50	63	80	100	160	180	200	250	315	350	400	450
	SV	13	20	32	44	63	79	100	125	200	225	250	300	365	400	450	500
Leakage Current (Max) (20 )	I = 0.02CV or 3mA whichever is smaller (After rated voltage applied for 5 minutes)																
	I = Leakage Current ( μ A) C = Nominal Capacitance ( μ F) V = Rated Voltage (V)																
Dissipation Factor (Max) (tan ) (120Hz , 20 )	Dissipation Factor (tan ) shall not exceed the values showed in the table of standard rating																
Load Life	After applying rated voltage for 2000 hours at 105 , the capacitor shall meet the following requirement.																
	Capacitance Change	Within ±20% of the initial value															
	Dissipation Factor	Not more than 200% of the specified value															
	Leakage Current	Not more than the specified value															
Shelf Life	After placed at 105 without voltage applied for 1000 hours, the capacitor shall meet the same requirement as load life.																
Applicable standards	Refer to JIS C 5101																

## Dimensions (mm)



## Frequency coefficient

Freq. (Hz)	50	60	120	400	1K	2.4K	5K	10K~100K
Coefficient	0.80	0.85	1.00	1.14	1.23	1.30	1.36	1.40

## Temperature coefficient

Ambient Temperature ( )	105	85	65
Coefficient	1.0	1.7	2.1



**Case Size / Max Ripple Current / tan / ESR**

CASE SIZE ( DxL(mm) ) / MAX DISSIPATION FACTOR ( tan / 120Hz,20 ) / MAX PERMISSIBLE RIPPLE CURRENT (RC(Arms) / 120Hz,105 ) / MAX EQUIVALENT SERIES RESISTANCE ( ESR( ) / 120Hz,20 )

WV	10				16				25				35			
μ F \ SPEC	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR
1500													20x20	0.40	0.80	0.354
1800													22x20	0.40	0.94	0.295
2200									20x20	0.45	0.98	0.271	22x20	0.40	1.04	0.241
2700									22x20	0.45	1.08	0.221	25x20	0.40	1.29	0.196
3300					20x20	0.50	1.06	0.201	22x20	0.45	1.29	0.181	30x20	0.40	1.45	0.161
3900					20x20	0.50	1.25	0.170	25x20	0.45	1.58	0.153				
4700	20x20	0.55	0.98	0.155	22x20	0.50	1.38	0.141	25x20	0.45	1.61	0.127				
5600	20x20	0.55	1.16	0.130	25x20	0.50	1.68	0.118								
6800	22x20	0.55	1.31	0.107	25x20	0.50	1.80	0.098								
8200	25x20	0.55	1.59	0.089												
10000	25x20	0.55	1.77	0.073												

WV	50				63				80				100			
μ F \ SPEC	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR
330													20x20	0.20	0.60	0.804
390													20x20	0.20	0.71	0.680
470									20x20	0.25	0.65	0.705	22x20	0.20	0.78	0.564
560									20x20	0.25	0.70	0.592	25x20	0.20	0.95	0.474
680					20x20	0.30	0.83	0.585	22x20	0.25	0.84	0.488	25x20	0.20	1.09	0.390
820					22x20	0.30	0.99	0.485	25x20	0.25	1.04	0.404	30x20	0.20	1.32	0.323
1000	20x20	0.35	0.87	0.464	22x20	0.30	1.10	0.398	25x20	0.25	1.19	0.332				
1200	22x20	0.35	1.02	0.387	25x20	0.30	1.20	0.332	30x20	0.25	1.44	0.276				
1500	25x20	0.35	1.15	0.309	30x20	0.30	1.47	0.265								
1800	25x20	0.35	1.34	0.258	30x20	0.30	1.52									
2200	30x20	0.35	1.60	0.211												

WV	160				180				200				250			
μ F \ SPEC	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR
100													20x20	0.15	0.59	1.99
120									20x20	0.15	0.63	1.66	22x20	0.15	0.65	1.66
150					20x20	0.15	0.66	1.33	20x20	0.15	0.66	1.33	25x20	0.15	0.74	1.33
180	20x20	0.15	0.69	1.11	22x20	0.15	0.80	1.11	22x20	0.15	0.80	1.11	25x20	0.15	0.77	1.11
220	22x20	0.15	0.81	0.904	25x20	0.15	0.90	0.904	25x20	0.15	0.87	0.904	30x20	0.15	0.95	0.904
270	25x20	0.15	0.98	0.737	25x20	0.15	0.95	0.737	25x20	0.15	0.95	0.737	30x20	0.15	1.00	0.737
330	25x20	0.15	1.02	0.603	30x20	0.15	1.15	0.603	30x20	0.15	1.15	0.603	35x20	0.15	1.16	0.603
390	30x20	0.15	1.25	0.510	30x20	0.15	1.20	0.510	35x20	0.15	1.20	0.510				
470	30x20	0.15	1.30	0.423	35x20	0.15	1.36	0.423	35x20	0.15	1.25	0.423				
560	35x20	0.15	1.46	0.355	35x20	0.15	1.43	0.355								
680	35x20	0.15	1.51	0.293												

**Case Size / Max Ripple Current / tan δ / ESR**

CASE SIZE ( D x L(mm)) / MAX DISSIPATION FACTOR (tan δ / 120Hz, 20 °C) / MAX PERMISSIBLE RIPPLE CURRENT ( RC(Arms) / 120Hz, 105 °C) / MAX EQUIVALENT SERIES RESISTANCE ( ESR(Ω) / 120Hz, 20 °C)

WV	315				350				400				450				
μ F	SPEC	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR	DxL	tan	RC	ESR
27														20x20	0.20	0.26	9.82
33														20x20	0.20	0.30	8.04
39										20x20	0.15	0.34	5.10	22x20	0.20	0.36	5.10
47					20x20	0.15	0.38	4.23		22x20	0.15	0.39	4.23	25x20	0.20	0.41	4.23
56	20x20	0.15	0.41	3.55	20x20	0.15	0.40	3.55		22x20	0.15	0.40	3.55	25x20	0.20	0.43	3.55
68	22x20	0.15	0.48	2.93	22x20	0.15	0.45	2.93		25x20	0.15	0.49	2.93	30x20	0.20	0.50	2.93
82	22x20	0.15	0.51	2.43	25x20	0.15	0.54	2.43		30x20	0.15	0.55	2.43	30x20	0.20	0.53	2.43
100	25x20	0.15	0.57	1.99	25x20	0.15	0.57	1.99		30x20	0.15	0.60	1.99	35x20	0.20	0.61	1.99
120	30x20	0.15	0.65	1.66	30x20	0.15	0.65	1.66		35x20	0.15	0.75	1.66	35x20	0.20	0.68	1.66
150	30x20	0.15	0.70	1.33	35x20	0.15	0.78	1.33		35x20	0.15	0.80					
180	35x20	0.15	0.85	1.11	35x20	0.15	0.85	1.11									
220	35*20	0.15	0.9	0.904													