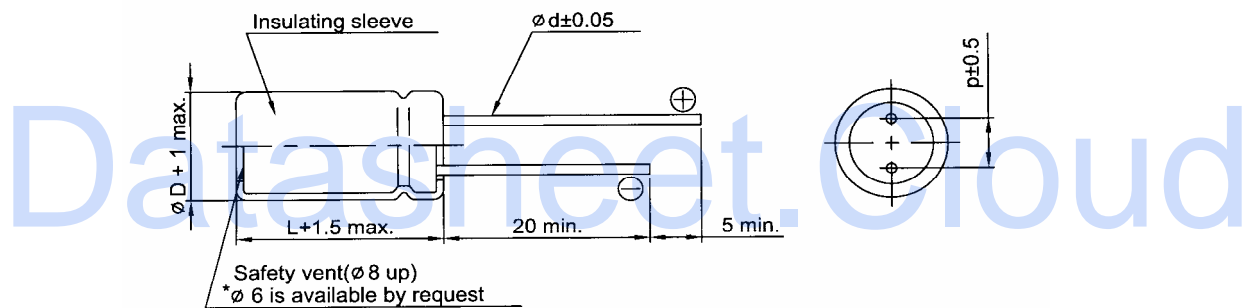


- ESG series capacitors are suitable for electronic ballast and other long life equipment.
- Load life 105°C, 5000 hours assured.

Characteristics

Voltage Range	160 ~450V							
Temperature Range	-25 ~ + 105°C							
Capacitance Range	10 to 220 uF							
Leakage Current	$I \leq 0.04CV$ or 10uA, whichever is greater (After 2 minutes)							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Dissipation Factor	WV	160	200	250	350	400	450	
	tan δ	0.15	0.15	0.15	0.20	0.20	0.22	
Load life after application of the rated voltage for 5000 hrs at 105°C	Leakage current	Less than specified value						
	Capacitance change	Within ±20% of initial value						
	tan δ	Less than 200% of specified value						
Shelf life (at 105°C)	After 1000 hrs no load test, leakage current, capacitance and tan δ same as load life value.							

Diagram of dimensions



D φ	10	13	16	18	22
p	5.0	5.0	7.5	7.5	10.0
d φ	0.6	0.6	0.8	0.8	0.8

Ripple Current Coefficients

Frequency (Hz)	50	60	120	1K	10K	10K <
	Multiplier					
Correction Factor	0.80	0.80	1.00	1.50	1.70	1.90

Temperature(°C)	65	85	105
Multiplier	2.00	1.65	1.00

Dimensions, Maximum Permissible Ripple Current & Impedance

WV Item uF	160			200			250		
	DφxL(mm)	Impedance (Ω)max 20°C 100KHz	Ripple Current mA(rms)	DφxL(mm)	Impedance (Ω)max 20°C 100KHz	Ripple Current mA (rms)	DφxL(mm)	Impedance (Ω)max 20°C 100KHz	Ripple Current mA(rms)
			105°C 120Hz			105°C 120Hz			105°C 120Hz
10	10x16	2.70	115	10x20	2.00	210	10x20	1.90	200
22	10x20	1.35	195	10x20	1.25	255	13x20	1.50	350
33	13x20	1.15	250	13x20	0.65	350	13x25	1.30	400
47	13x20	0.95	300	13x20	0.54	490	13x25	0.56	500
68	13x25	0.65	390	13x25	0.38	530	16x25	0.42	600
100	16x25	0.50	560	16x25	0.22	810	18x31.5	0.38	660
220	16x31.5	0.22	730	18x31.5	0.19	970	22x41	0.25	750

WV Item uF	350			400			450		
	DφxL(mm)	Impedance (Ω)max 20°C 100KHz	Ripple Current mA(rms)	DφxL(mm)	Impedance (Ω)max 20°C 100KHz	Ripple Current mA(rms)	DφxL(mm)	Impedance (Ω)max 20°C 100KHz	Ripple Current mA(rms)
			105°C 120Hz			105°C 120Hz			105°C 120Hz
10	13x20	1.30	180	10x20 13x20	3.40 2.90	165 180	13x25	3.82	130
22	13x20	1.28	250	13x25	2.72	320	16x25	2.98	170
33	13x25	1.15	320	16x25	1.30	350	16x31.5	2.50	215
47	16x25	0.70	440	16x31.5	0.97	450			
68	16x31.5	0.62	450	18x31	0.70	420			
100	18x31	0.60	354	18x41	0.56	405			