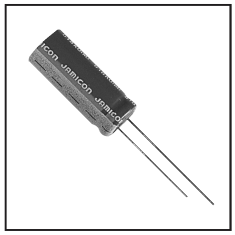
WG Series

Low Impedance, High Ripple Current

JAMICON

- High ripple current, low E.S.R. and long life.
- Suitable for output of switching power supplies.
- Corresponding product to RoHS

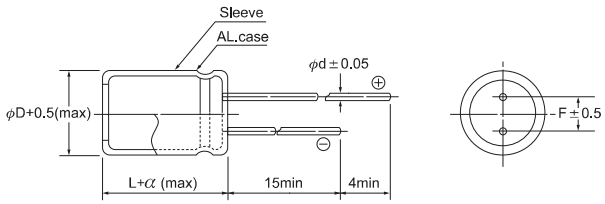


SPECIFICATION

Item	Characteristic							
Operation Temperature Range	-55 ~ +105°C							
Rated Working Voltage	10 ~ 100VDC							
Capacitance Tolerance (120Hz 20°C)	±20%(M) +50% -10%(T)							
Leakage Current (20°C)	I ≦0.01CV *after 3 minutes I : Leakage Current (μA) C : Rated Capacitance (μF) V : Working Voltage (V)							
Surge Voltage (20°C)	W.V.	10	16	25	35	50	63	100
	S.V.	13	20	32	44	63	79	125
Dissipation Factor (tan δ) (120Hz 20°C)	Add 0.02 per 1000 μF for more than 1000 μF							
	W.V.	10	16	25	35	50	63	100
	tan δ	0.12	0.10	0.09	0.08	0.07	0.06	0.06
Low Temperature Stability	Impedance ratio at 120Hz							
	Rated Voltage (V)	10~16	25~100					
	-25°C / +20°C	3	2					
	-55°C / +20°C	6	4					
Load Life	After hours (φD≦8mm 2000 hours, φD≧10mm 3000 hours) application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≦ rate working voltage)							
	Capacitance Change	≦±20% of initial value						
	Dissipation Factor	≦200% of initial specified value						
	Leakage current	≦initial specified value						
Shelf Life	At +105°C no voltage application after 1000 hours the capacitor shall meet the following limits. (with voltage treatment)							
	Capacitance Change	≦±20% of initial value						
	Dissipation Factor	≦200% of initial specified value						
	Leakage current	≦200% of initial specified value						

DIMENSIONS (mm)

φD	8	10	12.5	16	18
F	3.5	5.0	5.0	7.5	7.5
d	0.6	0.6	0.6	0.8	0.8
α	1.5	1.5	2.0	2.0	2.0



RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	65	75	85	95	105
Multiplier	2.12	1.92	1.69	1.50	1.00

Frequency(Hz)	60	120	400	1k	10k	100k
W.V.	Multiplier					
10~16V	0.45	0.60	0.83	0.94	0.98	1.00
25~35V	0.38	0.50	0.75	0.90	0.97	1.00
50~100V	0.36	0.46	0.70	0.88	0.94	1.00

CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
Max impedance : Ω 20°C 100kHz
Max ripple current : A(rms) 105°C 100kHz

V(DC) / Item / μF	10			16			25		
	DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.
100			→	8x11	0.348	0.27	8x11	0.330	0.34
220	8x11	0.190	0.36	8x15	0.180	0.44	10x16	0.170	0.59
330	8x15	0.152	0.50	10x16	0.144	0.57	10x18	0.136	0.76
470	10x16	0.124	0.62	10x18	0.118	0.71	10x20	0.112	0.95
680	10x18	0.098	0.78	10x20	0.093	0.90	12.5x20	0.088	1.21
1000	10x20	0.080	1.00	12.5x20	0.076	1.16	12.5x25	0.072	1.62
2200	12.5x25	0.046	1.61	12.5x30	0.043	1.89	12.5x40	0.041	2.70
3300	12.5x30	0.038	2.00	12.5x40	0.036	2.44	16x40	0.034	3.04
4700	12.5x40	0.032	2.50	16x40	0.031	2.64			

All blank voltage on sleeve marking is the same voltage as" → "point to.

V(DC) / Item / μF	35			50		
	DxL	IMP.	R.C.	DxL	IMP.	R.C.
47			→	8x11	0.453	0.29
68	8x11	0.374	0.30	8x15	0.352	0.39
100	8x15	0.311	0.40	10x16	0.292	0.49
220	10x18	0.161	0.66	10x20	0.151	0.80
330	10x25	0.129	0.93	12.5x20	0.121	1.04
470	12.5x20	0.105	1.07	12.5x25	0.099	1.37
680	12.5x25	0.083	1.42	12.5x30	0.078	1.79
1000	12.5x30	0.068	1.87	12.5x40	0.064	2.48
2200	16x40	0.039	2.83			

V(DC) / Item / μF	63			100		
	DxL	IMP.	R.C.	DxL	IMP.	R.C.
47	8x15	0.424	0.35	10x25	0.368	0.44
68	10x16	0.330	0.43	12.5x20	0.286	0.51
100	10x18	0.274	0.55	12.5x25	0.238	0.68
220	12.5x20	0.142	0.92	16x36	0.123	1.19
330	12.5x25	0.113	1.24	18x40	0.098	1.64
470	12.5x30	0.093	1.61			
680	16x36	0.073	2.09			