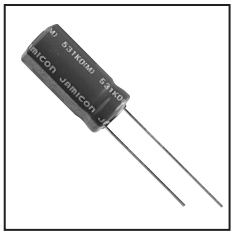
RADIAL TYPE

TM Series

High Reliability, Wide Temperature Range

JAMICON®



- High temperature 105°C and high reliability.
- Good reliability series for communication equipment and industrial measurement instruments.

SPECIFICATION

Item	Characteristic														
Operation Temperature Range	-40 ~ +105°C							-25 ~ +105°C							
Rated Working Voltage	6.3 ~ 100VDC							160~450VDC							
Capacitance Tolerance (120Hz 20°C)	±20%(M) +50% -10%(T)														
Leakage Current (20°C)	I ≦0.01CV or 4 (μA)							I ≦0.03CV +40 (μA) max							
	*Whichever is greater after 3 minutes I : Leakage Current(μA) C : Rated Capacitance(μF) V : Working Voltage(V)														
Surge Voltage (20°C)	W.V.	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
	S.V.	8	13	20	32	44	63	79	125	200	250	300	400	450	500
Dissipation Factor (tan δ) (120Hz 20°C)	Add 0.02 per 1000 μF for more than 1000 μF														
	W.V.	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
	tan δ	0.20	0.17	0.15	0.12	0.10	0.09	0.09	0.07	0.15	0.12	0.10	0.15	0.15	0.15
Low Temperature Stability	Impedance ratio at 120Hz														
	Rated Voltage (V)	6.3		10~16		25~100		160~250		350~400		450			
	-25°C / +20°C	4		3		2		4		8		15			
	-40°C / +20°C	8		6		4		—		—		—			
Load Life	After 2000 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	≦±25% of initial value for 6.3~16W.V., ≦±20% of initial value for 25~450W.V.													
	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													

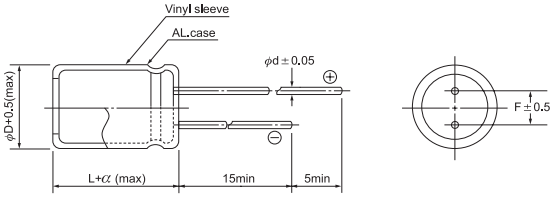
DIMENSIONS (mm)

φD	5	6.3	8	10	12.5	16	18
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
α	1.5	1.5	1.5	1.5	1.5	1.5	1.5

RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	65	85	105
Multiplier	1.80	1.50	1.00

Frequency(Hz)	60	120	1k	≧10k
W.V.	Multiplier			
6.3~25V	0.80	1.00	1.15	1.20
35~100V	0.75	1.00	1.30	1.40
160~450V	0.70	1.00	1.40	1.60



CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
Max ripple current : mA(rms) 105°C 120Hz

μF	Code	V(Code) / Item	6.3 (0J)		10 (1A)		16 (1C)	
			DxL	R.C.	DxL	R.C.	DxL	R.C.
47	470					→	5x11	85
100	101		6.3x11	120	6.3x11	130	6.3x11	140
220	221		6.3x11	180	6.3x11	190	8x11.5	240
330	331		8x11.5	260	8x11.5	280	10x12.5	310
470	471		8x11.5	310	8x11.5	330	10x12.5	370
1000	102		10x12.5	470	10x16	570	10x20	660
2200	222		10x20	810	12.5x20	930	12.5x25	1090
3300	332		12.5x20	1020	12.5x25	1200	16x25	1270
4700	472		12.5x25	1260	16x25	1350	16x31.5	1560
6800	682		16x25	1430	16x31.5	1660	18x35.5	1940
10000	103		16x31.5	1730	18x35.5	2030	18x40	2200
15000	153		18x35.5	2120	18x40	2310		

μF	Code	V(Code) / Item	25 (1E)		35 (1V)		50 (1H)	
			DxL	R.C.	DxL	R.C.	DxL	R.C.
0.47	R47					→	5x11	11
1	010					→	5x11	16
2.2	2R2					→	5x11	23
3.3	3R3					→	5x11	29
4.7	4R7					→	5x11	34
10	100		5x11	43	5x11	47	5x11	50
22	220		5x11	65	6.3x11	80	6.3x11	85
33	330		6.3x11	90	6.3x11	100	8x11.5	120
47	470		6.3x11	110	8x11.5	140	8x11.5	140
100	101		8x11.5	180	8x11.5	200	10x12.5	220
220	221		10x12.5	280	10x12.5	310	10x16	360
330	331		10x12.5	350	10x16	420	10x20	490
470	471		10x16	460	10x20	560	12.5x20	630
1000	102		12.5x20	790	12.5x25	960	16x25	1010
2200	222		16x25	1210	16x31.5	1440	18x35.5	1700
3300	332		16x31.5	1530	18x35.5	1840	18x40	2020
4700	472		18x35.5	1890	18x40	2100		
6800	682		18x40	2170				

μF	Code	V(Code) / Item	63 (1J)		100 (2A)	
			DxL	R.C.	DxL	R.C.
0.47	R47			→	5x11	12
1	010			→	5x11	18
2.2	2R2			→	5x11	27
3.3	3R3			→	5x11	33
4.7	4R7			→	5x11	39
10	100		5x11	50	6.3x11	65
22	220		6.3x11	85	8x11.5	110
33	330		8x11.5	120	10x12.5	140
47	470		10x12.5	150	10x16	190
100	101		10x16	250	12.5x20	330
220	221		10x20	400	16x25	540
330	331		12.5x20	530	16x25	660
470	471		12.5x25	690	16x31.5	870
1000	102		16x31.5	1120		

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

CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)
Max ripple current : mA(rms) 105°C 120Hz

μF	Code	V(Code) / Item	160 (2C)		200 (2D)		250 (2E)	
			DxL	R.C.	DxL	R.C.	DxL	R.C.
0.47	R47		6.3x11	13	6.3x11	14	6.3x11	15
1	010		6.3x11	19	6.3x11	20	8x11.5	26
2.2	2R2		6.3x11	28	6.3x11	30	8x11.5	38
3.3	3R3		8x11.5	40	8x11.5	43	10x12.5	49
4.7	4R7		8x11.5	48	10x12.5	55	10x12.5	60
10	100		10x12.5	75	10x16	90	10x20	110
22	220		10x20	140	10x20	140	12.5x20	170
33	330		12.5x20	180	12.5x20	190	12.5x25	220
47	470		12.5x25	230	12.5x25	250	16x25	270
100	101		16x25	340	16x31.5	400	16x35.5	460
220	221		18x35.5	630	18x40	710		

μF	Code	V(Code) / Item	350 (2V)		400 (2G)		450 (2W)	
			DxL	R.C.	DxL	R.C.	DxL	R.C.
1	010		10x12.5	19	10x12.5	20	10x18	20
2.2	2R2		10x16	32	10x18	35	12.5x20	33
3.3	3R3		10x20	43	12.5x20	48	12.5x25	45
4.7	4R7		12.5x20	55	12.5x20	55	16x25	55
10	100		12.5x25	85	12.5x25	90	16x31.5	85
22	220		16x31.5	140	16x31.5	150	16x35.5	140
33	330		18x35.5	200	18x35.5	210	18x40	190
47	470		18x40	250	18x40	260		