

ALUMINUM ELECTROLYTIC CAPACITORS

Goback

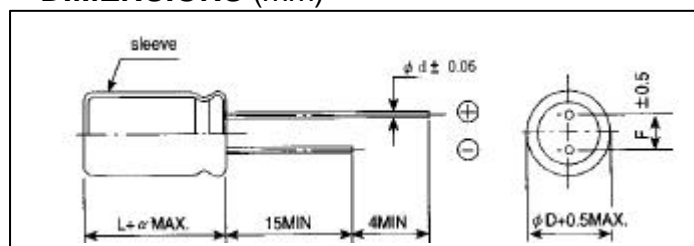
TK series GENERAL PURPOSE(105)

- Load life of 1000hours at 105
- Designed for consumer products, which require to withstand high temperature and high reliability

SPECIFICATIONS

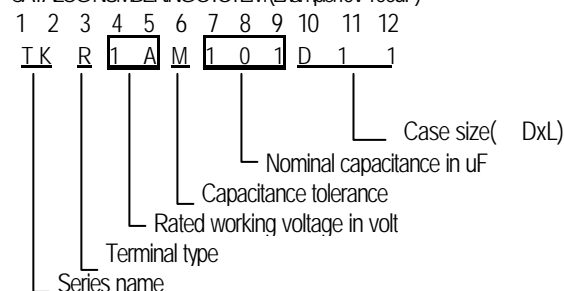
Item	Performance Characteristics												
Operating Temperature Range	- 40 + 105 (6.3~250V), - 25 ~ + 105 (350~450V)												
Rated Voltage Range	6.3~450W.V												
Capacitance Range	0.47~22,000uF												
Capacitance Tolerance	± 20% (M) at 120Hz , 25												
Leakage Current(MAX)	Rated Voltage(V)	6.3-100											
		<ul style="list-style-type: none"> ●After 1 minutes application of rated voltage, leakage current is not more than 0.03CV or 4uA, whichever is greater. ●After 2 minutes application of rated voltage, leakage current is not more than 0.01CV or 3uA, whichever is greater. 											
(tan)	Rated Voltage(V)	160-450											
		<ul style="list-style-type: none"> ●After 1 minute's application of rated voltage, CV 1000:1 0.1CV+40uA CV>1000:1 0.04CV+100(uA) 											
Stability at Low Temperature	For capacitance of more than 1000uF, add 0.02 for every increase of 1000uF, Measurement frequency:120Hz, Temperature:25												
	Rated voltage (V)	6.3	10	16	25	35	50	63	100	160-250	350-450		
Load Life	Tan (MAX)	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.08	0.20	0.25		
	Measurement frequency: 120Hz												
Shelf Life	Rated Voltage(V)	6.3	10	16	25	35	50-100	160-200	250	350	400	450	
	Impedance ratio	Z(-25)Z(+20)	5	4	3	2	2	2	3	3	6	6	6
Standard	ZT/Z20(MAX)	Z(-40)Z(+20)	10	8	6	4	3	3	4	4	-	-	-
	After 1000 hours' application of rated voltage at 105 , capacitors meet the characteristics requirement listed as following.												
Standard	Leakage Current	Specified value or less											
	Capacitance Change	Within ±25% of initial value.											
Standard	tan ä	200% or less of specified value											
	After leaving capacitors under no load at 105 for 500 hours and applying voltage according to JIS C5102 43, they meet the specified value for load life characteristics listed above.												
Printed with black color letter on orange sleeve according to JIS C 5141													

DIMENSIONS (mm)



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

CATALOG NUMBERING SYSTEM (Example:10V100uF)





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STANDARD SIZES AND PERMISSIBLE RIPPLE CURRENT

MAXIMUM RIPPLE CURRENT (mA rms/105 , 120Hz)

W.V		6.3		10		16		25		35		50		63	
Cap(uF)		0J		1A		1C		1E		1V		1H		1J	
0.1	0R1											5x11	2		
0.22	R22											5x11	3		
0.47	R47											5x11	7		
0.68	R68											5x11	9		
1	010							5x11	10			5x11	12		
2.2	2R2											5x11	18		
3.3	3R3											5x11	25		
4.7	4R7							5x11	22			5x11	29		
6.8	6R8											5x11	37		
10	100			5x11	23	5x11	30	5x11	32	5x11	36	5x11	45	5x11	50
22	220	5x11	28	5x11	41	5x11	47	5x11	50	5x11	53	5x11	65	5x11 6.3x11	70 75
33	330	5x11	43	5x11	48	5x11	55	5x11	60	5x11	65	5x11 6.3x11	68 75	6.3x11	80
47	470	5x11	65	5x11	70	5x11	85	5x11	90	5x11 6.3x11	80 95	6.3x11	105	8x11.5	110
56								5x11	95						
68	680							6.3x11	105						
100	101	5x11	80	5x11	85	5x11 6.3x11	90 110	6.3x11	120	6.3x11 8x11.5	122 150	8x11.5	160	10x12.5	170
150	151							6.3x11 8x11.5	155 172						
220	221	6.3x11	130	6.3x11	150	6.3x11 8x11.5	150 180	8x11.5	190	10x12.5	240	10x16	280	10x20	320
330	331	6.3x11	160	6.3x11 8x11.5	180 210	8x11.5	220	8x11.5 8x16 10x12.5 10x16	215 240 260 270	10x16	320	10x20	390	12.5x20	430
470	471	8x11.5	220	8x11.5	250	8x11.5 8x16 10x12.5	255 272 290	8x20 10x16	300 340	10x20	430	10x20 12.5x20	450 510	12.5x25	560
1000	102	10x12.5	360	8x16 10x16	340 430	10x20	520	12.5x16 12.5x20	555 610	12.5x20	680	16x25	790	16x31.5	880
1200	122			10x20	550			12.5x16	595						
2200	222	10x20	630	10x20 12.5x20	680 740	12.5x25	800	16x25	930	16x31.5 16x35.5	980 1110	18x35.5	1320		
3300	332	12.5x20	800	12.5x20	870	12.5x25	1020	16x25	1400						
4700	472	12.5x25	950	16x25	1200	16x31.5	1230								
6800	682	16x25	1100	16x31.5	1300	18x35.5	1520								
10000	103	16x31.5	1350	18x35.5	1580	18x40	1790								
15000	153	18x35.5	1650	18x40	1870										
22000	223	18x40	2350												

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MAXIMUM RIPPLE CURRENT (mA rms/105 , 120Hz)

Cap(uF)	W.V	100		160		200		250		350		400		450	
		2A		2C		2D		2E		2V		2G		2W	
0.47	R47	5x11	9	6.3x11	8	6.3x11	8	6.3x11	9	8x11.5	9	8x11.5	9	10x12.5	13
1	010	5x11	14	6.3x11	11	6.3x11	12	6.3x11	13	8x11.5	14	8x11.5	15	10x12.5	16
2.2	2R2	5x11	20	6.3x11	17	6.3x11	18	6.3x11	20	8x11.5	21	8x11.5 10x12.5	20 22	10x12.5 10x20	25 29
3.3	3R3	5x11	25	6.3x11	21	6.3x11	22	8x11.5	28	10x12.5	30	8x11.5 10x12.5	24 32	12.5x20	39
4.7	4R7	5x11	30	6.3x11	25	8x11.5	30	8x11.5	33	10x12.5	35	10x12.5 10x16	36 37	12.5x20	46
10	100	6.3x11	65	8x11.5	41	10x12.5	48	10x16	55	10x20	60	10x16 12.5x20	51 65	16x25	70
15	150					10x12.5 10x16	65 77	10x20	82						
22	220	8x11.5	85	10x16	75	10x20	90	12.5x20	110	12.5x25	115	12.5x20 12.5x25	100 120	16x31.5	130
33	330	10x12.5	110	10x20	100	12.5x20	120	12.5x20	130	16x25	135	12.5x25 16x31.5	130 140	18x35.5	160
47	470	10x16	150	12.5x20	130	12.5x20	140	12.5x25	170	16x35.5	175	12.5x30 12.5x35 16x25 18x35.5	145 150 155 180		
56												16x25	160		
68	680					12.5x20	215	16x25	210			18x25	180		
100	101	12.5x20	260	12.5x25	210	16x25	220	16x31.5	260	18x40	270	18x35.5	220		
120	121											18x35.5	270		
150	151					16x25	325								
220	221	16x25	410	16x35.5	350	18x40	430								
330	331	16x25	510	18x40	500										
470	471	16x31.5	670												

MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

W.V.	Cap(uF)	FREQUENCY (Hz)				
		60(50)	120	300	1K	10K~
6.3-100	0.1-47	0.80	1.00	1.35	1.57	2.00
	100-470	0.80	1.00	1.23	1.34	1.50
	1000-22000	0.80	1.00	1.10	1.13	1.15
160-450	1-220	0.80	1.00	1.25	1.14	1.60
	330-470	0.80	1.00	1.10	1.13	1.15

Temperature coefficient

Temperature	65	85	105
Coefficient	2.1	1.7	1.0