

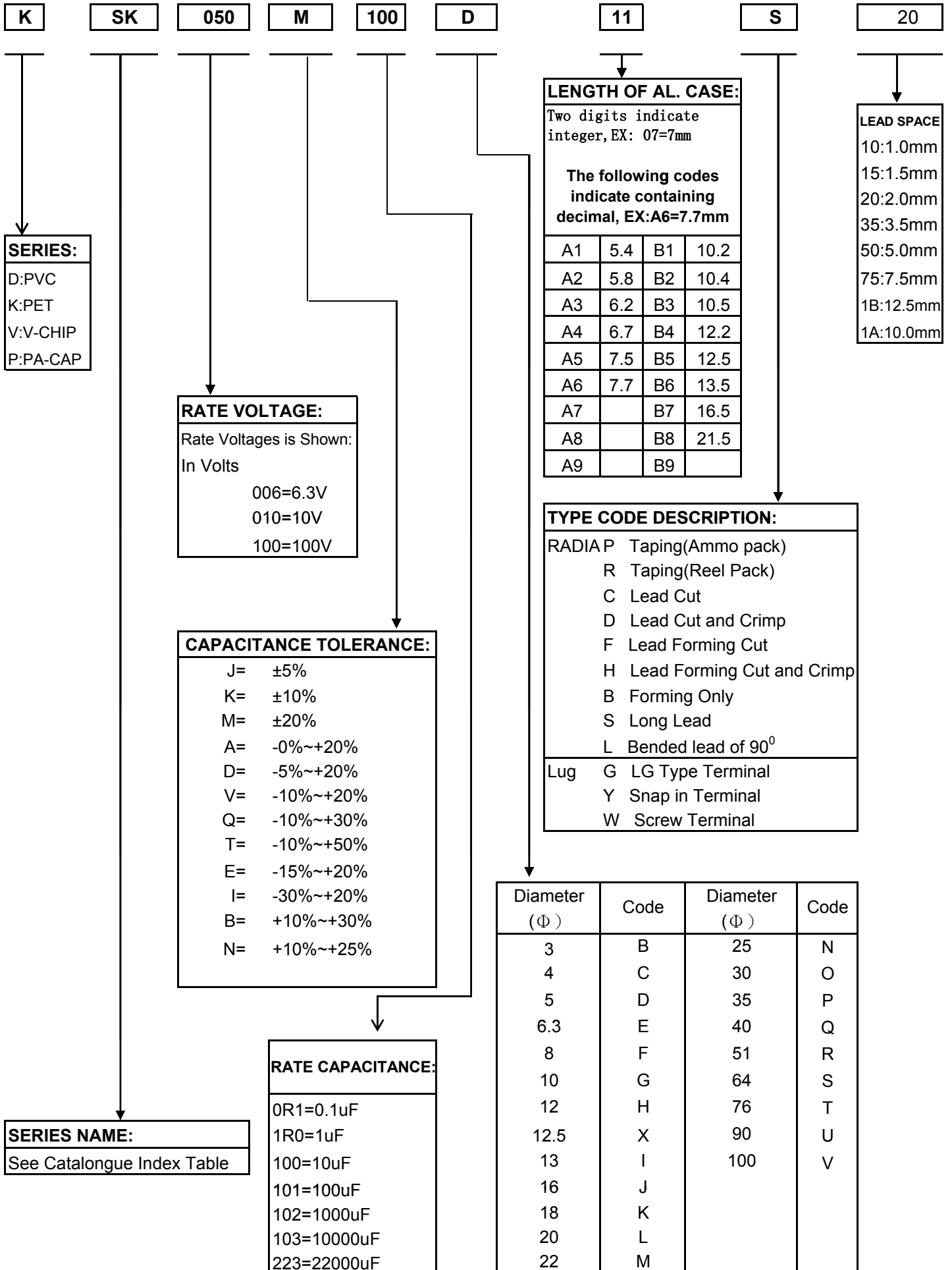
Features

105°C high-temperature resistance
 For general purposes

Specifications

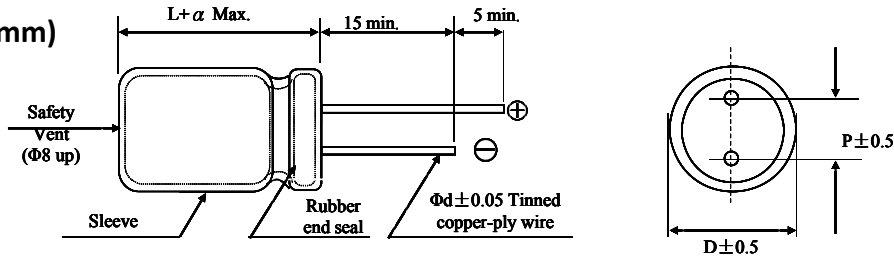
Items	Characteristics											
Capacitance Tolerance	±20% (120Hz, 20°C)											
Operating temperature Range	-40~+105°C				-40~+105°C				-25~+105°C			
Rated Voltage Range	6.3~100V				160~250V				350~450V			
Leakage Current	I ≤ 0.01CV or 3 (uA), Which is greater. (After 2 minutes application of working voltage)						I ≤ 0.03CV +20 (uA), (After 3 minutes application of working voltage)					
Dissipation Factor (tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C											
	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100	160~250	350~450
	tan δ (MAX)	0.24	0.20	0.16	0.15	0.12	0.10	0.09	0.08	0.08	0.20	0.25
	When nominal capacitance exceeds 1000uF, add 0.02 to the value above for each 1000uF increase. (20°C、120Hz)											
Low Temperature Stability Impedance Ratio (MAX)	Measurement Frequency: 120Hz.											
	Rated Voltage (V)	6.3	10	16	25	35	50~100	160~250	350~400	450		
	Z (-25°C) / Z (20°C)	5	4	3	2	2	2	3	6	15		
	Z (-40°C) / Z (20°C)	10	8	6	4	3	3	4	-	-		
Load Life	2000 hours, with application of working voltage at 105°C.											
	Capacitance Change						Within ±25% of Initial Value					
	tan δ						200% or less of Initial Specified Value					
	Leakage Current						Initial Specified Value or less					
Shelf Life	2000hours, no voltage applied, at 105°C. After Test: U _R to be applied for 30 minutes, 24 to 48 hours before measurement.											
	Capacitance Change						Within ±20% of Initial Value					
	tan δ						200% or less of Initial Specified Value					
	Leakage Current						Initial Specified Value or less					
Standards	JIS C 5141 and JIS C 5102											
Permissible Ripple Current												
Temperature Coefficient												
TEMP (°C)	60			70			85			105		
Coefficient	1.85			1.65			1.40			1.00		
Frequency Coefficient												
WV (V)	Capacitance (uF)	Frequency (Hz)										
		50		120		1K		≥10K				
≤ 100	<100	0.75		1.00		1.57		2.00				
	100~470	0.80		1.00		1.34		1.50				
	>470	0.85		1.00		1.10		1.15				
≥ 160	0.47~470	0.85		1.00		1.40		1.50				

Part Number Codes



Aluminum Electrolytic Capacitors

Dimensions(mm)



ΦD	5	6.3	8	10	13	16	18	22	25
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	12.5
Φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8	0.8	1.0

α	(L<16)1.0 (L≥16)2.0
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STANDARD RATINGS

D×L (mm); R.C.: (mA rms) at 105°C, 120Hz.

Cap (uF)	WV(V) (Code)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)	
		D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.
0.1~0.47												5×11	9.9	5×11	5
1.0												5×11	14	5×11	15
2.2												5×11	22	5×11	23
3.3												5×11	27	5×11	28
4.7								5×11	27	5×11	28	5×11	33	5×11	34
6.8								5×11	32	5×11	34	5×11	42	5×11	46
10				5×11	36	5×11	38	5×11	39	5×11	43	5×11	49	5×11	53
22		5×11	49	5×11	49	5×11	59	5×11	57	5×11	68	5×11	75	5×11(8*12)	99
33		5×11	60	5×11	64	5×11	72	5×11	75	5×11	83	5×11	97	6.3×11	110
47		5×11	71	5×11	72	5×11	85	5×11	88	5×11	95	6.3×11	132	6.3×11	133
56		5×11	82	5×11	86	5×11	95	5×11	99	6.3×12	115	6.3×12	137	8×12	156
68		5×11	93	5×11	98	5×11	132	5×11	137	6.3×12	154	6.3×12	178	8×12	187
100		5×11	101	5×11	115	6.3×7/11	137	6.3×11	148	6.3×12	176	8×12	220	10×13	231
220		6.3×12	159	6.3×12	193	6.3×11	215	8×12	264	10×13	302	10×16	330	10×16	396
330		6.3×12	212	8×12	225	8×12	292	8×12(10*13)	335	10×16	440	10×16	467	10×21	605
470		6.3×12	242	6.3×11	247	8×12	346	8×14	396	10×20	528	13×21	693	13×21	770
560		8×12	247	8×12	253	8×14	352	10×16	407	10×20	572	13×21	704	13×25	792
680		8×12	253	8×12	264	8×14	385	10×20/21	528	10×20	638	13×25	726	16×26	913
1000		8×14	440	8×12	484	10×16	561	10×20	550	13×25	908	13×26	990	16×32	1100
1200		8×14	460	10×17	510	10×20	550								
1500		8×20	495	10×20	539	10×20	583	13×21	715	13×25	946	16×32	1320	18×32	1562
2200		10×16	724	10×21	759	13×21	913	13/16×26	1029	16×26	1221	16×36	1463	18×35	1815
3300		10×20	825	13×21	902	13×26	1111	16×26	1298	16×36	1573	18×36	1815	22×40	2134
4700		13×26	1056	13×25	1188	16×26	1331	16×32	1562	18×35	1870	22×41	2310	22×50	2695
6800		16×26	1259	16×26	1463	16×36	1694	18×35	2002	22×40	2365	22×50	2750		
10000		16×26	1573	16×36	1848	18×35	2123	22×40	2354	22×50	2915				
15000		16×36	2013	18×35	2321	22×40	2662	22×50	3025						
22000		18×40	2519	22×40	2904	22×50	3300								

Cap (uF)	WV(V) (Code)	100 (2A)		160 (2C)		200 (2D)		250 (2E)		350 (2V)		400 (2G)		450 (2W)	
		D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.	D×L	R.C.
0.1		5×11	1.6												
0.22		5×11	3.7												
0.33		5×11	5.5												
0.47		5×11	12	6.3×11	11	6.3×11	11	6.3×11	13	8×12	12	8×12	13	10×13	13
1.0		5×11	18	6.3×11	15	6.3×11	17	6.3×11	17	8×12	17	6.3×12	17	8×12	20
2.2		5×11	27	6.3×11	24	8×12	25	6.3×12	31	8×12	27	8×12	33	10×20	35
3.3		5×11	33	8×12	33	8×12	38	8×12	44	10×13	35	10×13	42	13×21	50
4.7		5×11	40	6.3×11	44	8×12	46	10×13	55	10×13	42	8×12	55	10×13	44
6.8		5×11	41	8×12	46	8×12	55	10×13	64	10×13	69	8×14	75	13×21	79
10		6.3×11	68	10×13	55	8×12	66	10×16	77	10×20	88	10×16	88	10×20	86
22		5×11(8×12)	102	10×16	110	10×20	148	10×20	143	13×25	137	13×21	137	16×26	144
33		8×12(10×13)	121	10×20	132	13×21	159	13×21	165	16×26	160	13×25	187	16×32	192
47		10×13	170	13×21	176	13×25	220	13×25	225	16×26	231	16×25	231	16×36	308
68		10×16	216	22×40	204	13×25	230	16×26	247	16×32	236	16×32	236	18×35	462
82		10×16	238	13×25	242	13×25	253	16×26	273	16×32	258	18×32	385	18×35	517
100		10×21	286	16×26	330	16×26	291	16×32	357	18×32	298	18×35	440	18×36	550
120		10×25	352	16×26	330	16×26	330	16×32	418	18×35	315	18×40	495	18×45	605
150		13×21	412	16×26	363	16×32	404	18×32	495	18×40	352	22×40	550		
220		13×26	528	16×36	473	18×32	583	22×35	770						
330		16×26	649	18×35	660	22×30	682								
470		16×25	880	18×40	797	22×40	913								
1000		18×35	1430	22×50	1083	25×50	1441								
2200		18×40	1815												

Typical failure modes and factors of aluminum electrolytic capacitors.

