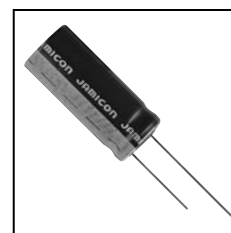


- High temperature 105°C and high reliability



SPECIFICATION

Item	Characteristic															
Operation Temperature Range	-55 ~ +105°C						-40 ~ +105°C				-25 ~ +105°C					
Rated Working Voltage	6.3 ~ 100VDC						160 ~ 400VDC				450VDC					
Capacitance Tolerance (120Hz 20°C)	±20%(M)															
Leakage Current (20°C)	6.3~100 VDC I ≤0.01CV or 4 (μA)								160~450 VDC 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	0.24	0.20	0.17	0.15	0.12	0.10	0.10	0.08	0.15	0.15	0.15	0.20	0.20	0.20	
Low Temperature Stability	Impedance ratio at 120Hz															
	Rated Voltage (V)			6.3	10	16	25	35~100	160~250	350~400	450					
	-25°C / +20°C			4	3	2	2	2	3	6	15					
	-40°C / +20°C			10	8	6	4	3	4	10	—					
Load Life	After 2000 hours application of W.V. at +105°C, the capacitor shall meet the following limits.															
	Capacitance Change			≤ ±25% of initial value for 6.3~16 W.V., ≤ ±20% of initial value for 25~450 W.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 limits for load life characteristics. (with voltage treatment)															

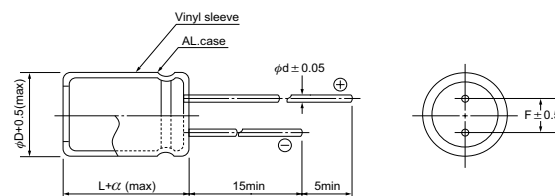
DIMENSIONS (mm)

ϕD	5	6.3	8	10	12.5	16	18	20	22	25
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10.0	10.0	12.5
d	0.5	0.5	0.6	0.6	0.6	0.8	0.8	0.8	1.0	1.0
α	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0

RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	65	85	105
Multiplier	1.75	1.40	1.00

Frequency(Hz)	60	120	1k	$\geq 10k$
W.V.	Multiplier			
6.3~25V	0.85	1.00	1.10	1.20
35~100V	0.80	1.00	1.15	1.25
160~250V	0.75	1.00	1.25	1.40
350~450V	0.70	1.00	1.30	1.80



● CASE SIZE & MAX RIPPLE CURRENT

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

μF	V(Code)		6.3 (0J)		10 (1A)		16 (1C)	
	Code	Item	DxL	R.C.	DxL	R.C.	DxL	R.C.
47	470					→	5x11	75
100	101		5x11	95	5x11	100	5x11	110
220	221		5x11	140	5x11	150	6.3x11	190
330	331		6.3x11	200	6.3x11	210	8x11.5	270
470	471		6.3x11	230	6.3x11	260	8x11.5	320
1000	102		8x11.5	400	10x12.5	460	10x16	550
2200	222		10x16	660	10x20	790	12.5x20	910
3300	332		10x20	860	12.5x20	990	12.5x25	1170
4700	472		12.5x20	1040	12.5x25	1230	16x25	1310
6800	682		12.5x25	1300	16x25	1390	16x31.5	1620
10000	103		16x25	1450	16x35.5	1780	18x35.5	1970
15000	153		16x35.5	1860	18x35.5	2060	20x40	2210
22000	223		18x40	2250	20x40	2460	22x50	2940
33000	333		22x50	2950	22x50	3020	25x50	3300

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

μF	V(Code)		25 (1E)		35 (1V)		50 (1H)	
	Code	Item	DxL	R.C.	DxL	R.C.	DxL	R.C.
0.1	0R1					→	5x11	5
0.22	R22					→	5x11	7
0.33	R33					→	5x11	8
0.47	R47					→	5x11	10
1	010					→	5x11	15
2.2	2R2					→	5x11	22
3.3	3R3					→	5x11	27
4.7	4R7					→	5x11	32
10	100		5x11	38	5x11	42	5x11	46
22	220		5x11	55	5x11	65	5x11	70
33	330		5x11	70	5x11	75	5x11	85
47	470		5x11	80	5x11	90	6.3x11	110
100	101		6.3x11	140	6.3x11	150	8x11.5	190
220	221		8x11.5	240	8x11.5	260	10x12.5	300
330	331		8x11.5	290	10x12.5	340	10x16	410
470	471		10x12.5	360	10x16	450	10x20	540
1000	102		10x20	650	12.5x20	770	12.5x25	930
2200	222		12.5x25	1060	16x25	1180	16x35.5	1480
3300	332		16x25	1240	16x35.5	1570	18x35.5	1790
4700	472		16x31.5	1520	18x35.5	1840		
6800	682		18x35.5	1890				
10000	103		20x40	2270				
15000	153		22x50	2840				
22000	223		25x50	3210				

● CASE SIZE & MAX RIPPLE CURRENT

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

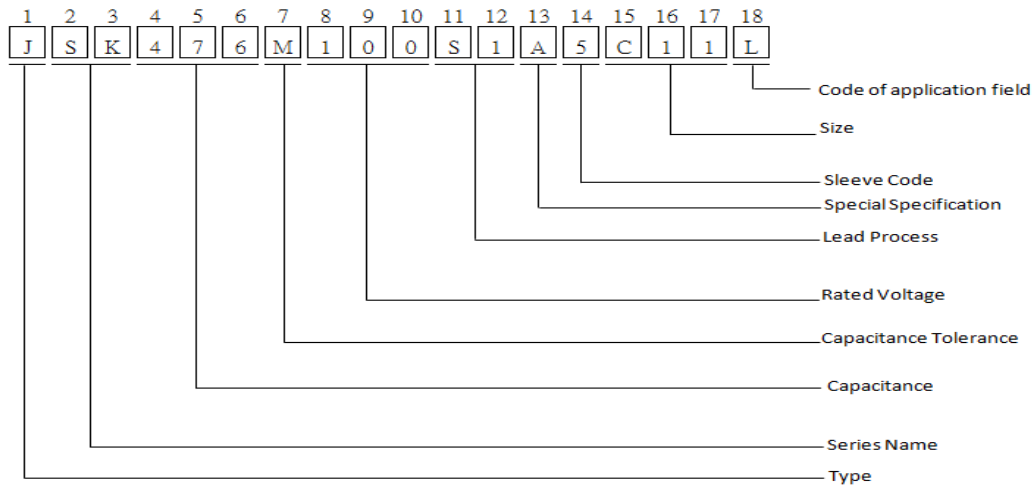
μF	Code	V(Code) Item	63 (1J)		100 (2A)	
			DxL	R.C.	DxL	R.C.
0.1	0R1			→	5x11	5
0.22	R22			→	5x11	8
0.33	R33			→	5x11	9
0.47	R47			→	5x11	11
1	010			→	5x11	16
2.2	2R2			→	5x11	24
3.3	3R3			→	5x11	30
4.7	4R7			→	5x11	35
10	100		5x11	46	6.3x11	55
22	220		5x11	70	6.3x11	85
33	330		6.3x11	95	8x11.5	120
47	470		6.3x11	110	10x12.5	160
100	101		10x12.5	200	10x20	280
220	221		10x16	340	12.5x25	490
330	331		10x20	460	12.5x25	600
470	471		12.5x20	580	16x25	720
1000	102		16x25	940	18x40	1380
2200	222				22x50	2260

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

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	9	6.3x11	10	6.3x11	11
1	010		6.3x11	14	6.3x11	15	6.3x11	16
2.2	2R2		6.3x11	20	6.3x11	22	6.3x11	24
3.3	3R3		6.3x11	25	6.3x11	26	8x11.5	34
4.7	4R7		6.3x11	29	8x11.5	37	8x11.5	40
10	100		8x11.5	50	10x12.5	55	10x16	70
22	220		10x16	85	10x20	100	12.5x20	120
33	330		10x20	120	12.5x20	130	12.5x20	150
47	470		12.5x20	150	12.5x20	160	12.5x25	190
100	101		12.5x25	240	16x25	260	16x31.5	310
220	221		16x35.5	420	18x40	510		
330	331		18x40	580				
470	471		22x40	770				
1000	102		25x50	1330				

μF	Code	V(Code) Item	350 (2V)		400 (2G)		450 (2W)	
			DxL	R.C.	DxL	R.C.	DxL	R.C.
0.47	R47		8x11.5	11	8x11.5	11	10x12.5	11
1	010		8x11.5	16	8x11.5	16	10x12.5	17
2.2	2R2		8x11.5	24	10x12.5	26	10x20	30
3.3	3R3		10x12.5	30	10x12.5	31	12.5x20	40
4.7	4R7		10x12.5	36	10x16	42	12.5x20	47
10	100		10x20	65	12.5x20	70	16x25	75
22	220		12.5x25	110	12.5x25	120	16x31.5	130
33	330		16x25	140	16x31.5	160	18x35.5	170
47	470		16x35.5	190	18x35.5	210		
100	101		18x40	320	20x40	350		
220	221		22x50	580				

Part Number System



Code 1

Type

Code	Model Type
J	Jamicon Radial Type (PET sleeve)
K	Teapo Radial Type (PET sleeve)
V	SMD (V-chip) Type (Nylon coating)
S	TEAPO Snap-in Type (PET sleeve)
T	JAMICON Snap-in Type (PET sleeve)
H	Snap-in Type(No Insulating base,PET sleeve)
P	Conductive Polymer Aluminum Solid Capacitor
N	Screw Type(PVC sleeve)
B	Radial Type special for CP line(PET sleeve)
M	Radial Type 8 φ pitch =2.5mm(PET sleeve)
G	G-LUXON Radial Type (PET sleeve)
R	Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

Code 2~3

Series Name (as content page 2 to page 4)

Code 4~6

Capacitance

Capacitance(uf)	0.47	4.7	47	470	4700	47000	470000	4700000	47000000	470000000
product code	474	475	476	477	478	479	47A	47B	47C	47D

Code 7

Capacitance Tolerance

A : - 8~ + 32%	B : - 5~ + 10%	C : + 10~ + 30%	D : - 40~ + 0%	W : - 15~ + 0%	X : - 15~ + 5%
G : - 30~ + 0%	H : - 5~ + 15%	I : - 20~ + 0%	J : - 5~ + 5%	Q : - 10~ + 30%	R : - 0~ + 20%
M : - 20~ + 20%	N : - 30~ + 30%	O : - 20~ + 10%	P : - 0~ + 30%	K : - 10~ + 10%	L : - 15~ + 15%
S : - 0~ + 50%	T : - 10~ + 50%	U : - 10~ + 75%	V : - 10~ + 20%	E : - 12~ + 20%	F : - 5~ + 20%
Y : - 10~ + 150%	Z : - 20~ + 80%				

Code 8~10

Rated Voltage

Rated Voltage(WV)	2.5	5	6.3	63	100	450
product code	2R5	005	6R3	063	100	450

Code 11~12

Lead Process

Code processing form	Code 11	Code 12	Description
Standard	A	1	Screw type standard type
		0	Standard SMD type
		1	Standard Dip & Snap-in type
Ammo tape	T	1	Standard ammo tape (pitch 5mm for dia. ~ 13mm)
		2	Ammo tape with straight lead (available for dia. 4~8mm)
		4	Ammo formed tape with pitch 2.5mm (available for dia.4~5mm)
Reel tape	R	1	Standard reel tape (pitch 5mm for dia.~ 10mm)
		2	Reel tape with straight lead (available for dia. 4~8mm)
		3	Reel formed tape with pitch 2.5mm (available for dia.4~5mm)
Straight cut	C	3	Straight cut lead with L : 3.2+/-0.5mm
		5	Straight cut lead with L : 4.0+/-0.5mm
		7	Straight cut lead with L : 5.0+/-0.5mm
Kink(Crimp)cut	K	2	Kink cut lead with L : 4.5+/-0.5mm
Formed cut	F	6	Forming cut lead with L : 4.0+/-0.5 (Pitch : 5mm)

Code 13 Special Specification

A	Standard	J	S-protection	S	spacer special DIP special	2	Life & ESR special
B	DF (tanδ)special	K	Above life specified in catalog	T	length of body special fortolerance	3	Life & Impedance special
C	ESR special	L	Pins or Wire diameter	U	Pack special	4	Life & Ripple current
D	Impedance special	M	Customer requirements	V	Sleeve special	5	Life & LC special
E	Ripple current special	N	Pitch special	W	Capacitance special	6	life & rubber cover or
F	LC special	O	LC & ESR or Impedance special	X	DF & LC & ESR or Impedance special	7	DF & ESR or Impedance special
G	GUM or special for capacitor cover plate or non-salient point in bottom	P	Under life specified in catalog	Y	RC & LC & ESR or Impedance special	8	DF & RC special
H	Customer requirements	Q	DF & Ripple current & ESR or Impedance special	Z	Frequency & ESR or Impedance special	9	DF & LC special
I	RC & LC special	R	Shelf is 1000Hrs	1	Life & DF special	0	RC & ESR or Impedance

Code 14 Sleeve Code (please contact us if the sleeve code in the form cannot corresponding with your requirement.)

代碼	Color	JAMICON	TEAPO
1	Dark blue with white	/	SK
5	Black with white printing	NK,SK,TE,TQ,TT,TV,TP,TR,TW,SA,RV,HF,HM,HS,HT,LS,HV,HX,WB,WH,LB,HB,KP,MP,WP,QP,RP,XP,JP,EP,WP	SH,SG,SP,SB,SY,SJ,RN,SQ,AK,ST,TA,SU,TB,LH,LG,LJ,LF,LQ,LM,TE,LS,LK,TT,S5,S7,H5,H7,KP,WP,QP,MP,XP,JP,MA,TP,LA,GA,GB
6	Black with golden printing	TU,WF	TC
C	Green with golden printing	SL,WL,TF	SC,WL
H	Royal blue with golden printing	/	SZ
N	SMD standard pack & POLYMER	CA,CD,CE,CJ,CK,CN,CU,CS,CW,CT,CH,CL,CF,CZ,CB,CP,VP,VC,VB,VS,VA,VD,VQ,FG,FR,FF,FL,FS,FP,FH,FC,FB,FT,YA,YX	XV,LV,MV,AV,PV,RV,WV,GV,FV,SV,DV,YV,EV,XV,HV,NV,VP,VC,VB,VS,VA,VD,VQ,FG,FR,FF,FL,FS,FP,FH,FC,FB,FT,YA,YX
M	Black with blue printing	SH,ST,TK,TC	/
A	Green with black printing	LK,WB	LK,WB
9	Green with silvery printing	MZ	MZ
B	Brown with white printing	TH,TL,HL,LL,HV	TH,GC,GD
Z	Brown with silver printing	TX,TJ,	TX
7	Green with white printing	LT,HT	/

Code 15~17 Case Size (Please contact us if the case size is required and not shown in the table.)

Code 15 Diameter

Code	A	B	C	D	E	F	G	8	H	9
Case size	3	4	5	5.5	6.3	7.3	8	8.2	10	10.2
Code	J	K	L	6	M	N	7	P	Q	R
Case size	12	12.5	13	14.5	16	18	18.5	20	22	25
Code	S	T	U	V	W	X	Y	Z	1	
Case size	30	35	40	45	51	64	77	90	101	

Code 16~17 Length

For ECAP-DIP & POLYMER-DIP & SNAP-IN & SCREW TYPE :

Code	05	07	09	10	1A	11	1B	12	1C	13
Length	05	07	09	10	10.5	11	11.5	12	12.5	13
Code	14	15	16	17	18	20	25	30	3B	32
Length	14	15	16	17	18	20	25	30	31.5	32
Code	35	3F	36	40	45	50	55	60	65	70
Length	35	35.5	36	40	45	50	55	60	65	70
Code	75	80	90	96	A0	B5	C1	D0	E4	F5
Length	75	80	90	96	100	115	121	130	144	155

For V-CHIP SMD

Code	01	02	03	04	05	06	07	08
Length	5.4	6.2	10.2	7.7	13.5	16、16.5	12.5	5.8

For POLYMER SMD

Code	A1	A2	A3	A4	A5	A6	A7	A8	A9
Length	5.8	6.0	6.7	7.7	10.2	10.4	12.0	12.2	9.0

Code 18 Code of application field

H: Intelligent instrument	R:Medical	X:Weekly date code	6:Industrial equipment / inverter
K:TEAPO	S:Auto grade	0:G.LUXON	L : JAMICON