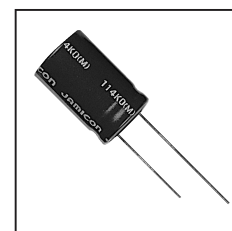


- High ripple current, low E.S.R. and long life
- Suitable for electronic ballast, adaptor and switching power
- Corresponding product to RoHS

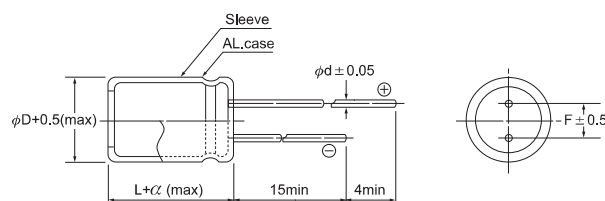


SPECIFICATION

Item	Characteristic						
Operation Temperature Range	-40 ~ +105°C				-25 ~ +105°C		
Rated Working Voltage	160 ~ 400VDC				450VDC		
Capacitance Tolerance (120Hz 20°C)	±20%(M)						
Leakage Current (20°C)	I ≤0.06CV + 10 (μA) Whichever is greater after 2 minutes				I : Leakage Current (μA) C : Rated Capacitance (μF) V : Working Voltage (V)		
Surge Voltage (20°C)	W.V.	160	200	250	400	450	
	S.V.	200	250	300	450	500	
Dissipation Factor (tan δ) (120Hz 20°C)	W.V.	160	200	250	400	450	
	tan δ	0.15	0.15	0.15	0.24	0.24	
Low Temperature Stability	Impedance ratio at 120Hz						
	Rated Voltage (V)		160 ~ 250			400	450
	-25°C / +20°C		3			6	6
	-40°C / +20°C		4			6	—
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 limits for load life characteristics. (With voltage treatment)						

DIMENSIONS (mm)

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



RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	65	75	85	95	105
Multiplier	1.80	1.65	1.50	1.25	1.00

Frequency (Hz)	120	1k	10k	100k
W.V.	Multiplier			
160~450	0.50	0.80	0.90	1.00

● CASE SIZE & MAX RIPPLE CURRENT

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

μF	V(DC) Item	160			200			250		
		DxL	IMP.	R.C.	DxL	IMP.	R.C.	DxL	IMP.	R.C.
4.7								10x16	3.45	150
10		10x16	1.47	220	10x16	1.47	220	10x20	2.70	240
22		10x20	0.80	350	10x20	0.80	350	12.5x20	1.47	380
33		10x20	0.62	430	12.5x20	0.62	460	12.5x25	1.15	510
47		12.5x20	0.50	550	12.5x25	0.50	610	16x25	0.92	610
68		12.5x20	0.39	660	12.5x25	0.39	730	16x32	0.71	810
100		16x25	0.32	890	16x32	0.32	980	18x36	0.59	1110
220		16x36	0.17	1540	18x36	0.17	1640	18x40	0.31	1730

μF	V(DC) Item	400			450		
		DxL	IMP.	R.C.	DxL	IMP.	R.C.
2.2					10x16	4.94	110
3.3		10x20	2.60	170	10x20	4.11	150
4.7		10x25	2.20	220	12.5x20	3.47	190
10		12.5x25	1.72	340	12.5x25	2.72	300
22		16x25	0.94	510	16x32	1.48	500
33		16x32	0.73	690	16x32	1.15	620
47		16x32	0.59	820	18x32	0.92	780
68		16x32	0.46	990			
100		18x32	0.38	1280			
120		18x36	0.32	1480			
150		18x40	0.26	1740			
180		18x40	0.23	1910			

Jamicon Series : TH

Teapo Series : TH High Ripple Series

■ Endurance: 105°C 3000 hours

■ Recommended Applications : AV(TV, Video, Audio); Monitor/Computer; OA/HA/
Communication; Converter/Inverter; Energy saving lamp; PFC
circuit; SMPS; Ballast; Adapter

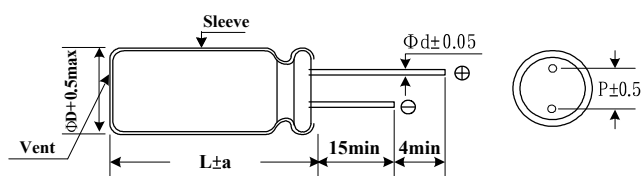
■ Corresponding product to RoHS



SPECIFICATIONS

Item	Characteristics						
Category Temperature Range	-40~+105℃				-25~+105℃		
Rated Voltage Range	160 ~ 400VDC				420~450VDC		
Rated Capacitance Range	2.2 ~ 220 μ F						
Capacitance Tolerance	± 20 % (120Hz , 20℃)						
Leakage Current (20℃)	I=0.06CV +10 μ A (After rated voltage applied for 2 minutes) I : Max. leakage current (μ A), C : Nominal capacitance (μ F), V : Rated voltage (V)						
Dissipation Factor(MAX) (tan δ) (120Hz ,20℃)	WV	160	200	250	350	400	420~450
	tan δ	0.15	0.15	0.15	0.24	0.24	0.24
Low Temperature Stability Impedance Ratio (MAX)	WV Z (120Hz)		160~250	400	420~450		
			3	5	6		
			4	6	—		
Endurance	After applying rated voltage with rated ripple current for2000 (≥10 φ 3000) hours at 105℃ , the capacitors shall meet the following requirements.						
	Capacitance change		Within ± 20% of initial value				
	D.F. (tan δ)		Not more than 200% of specified value				
	Leakage current		Not more than the specified value				
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for1,000 hours at 105℃ without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to item 4.1 of JIS C 5101-4.						

Dimensions [mm]



ΦD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
Φd	0.6	0.6	0.8	0.8
a	1.5	2.0	2.0	2.0

Notes : (): $L \geq 30\text{mm}$

Multiplier for Ripple Current

Freq. (Hz)	120	1k	10k	100k
160~450	0.5	0.80	0.90	1.00

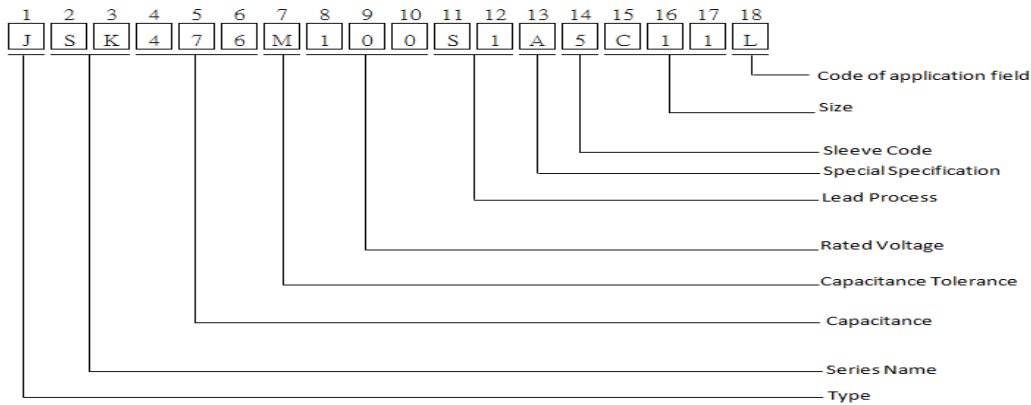
Jamicon Series : TH

Teapo Series : TH High Ripple Series

■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105℃) (100kHz)	Impedance (Ω ,20℃) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap (μ F)	Case size Φ DxL(mm)	Ripple current (mA/rms105℃) (100kHz)	Impedance (Ω ,20℃) (100KHz)
160v (200)	10	10x16	220	1.47	250v (300)	100	18x36	1110	0.59
	22	10x20	350	0.80		220	18x40	1730	0.31
	33	10x20	430	0.62	400v (450)	3.3	10x20	170	2.6
	47	12.5x20	550	0.50		4.7	10x25	220	2.2
	68	12.5x20	660	0.39		10	12.5x25	340	1.72
	100	16x25	890	0.32		22	16x25	510	0.94
	220	16x36	1540	0.17		33	16x32	690	0.73
200v (250)	10	10x16	220	1.47		47	16x32	820	0.59
	22	10x20	350	0.80		68	16x32	990	0.46
	33	12.5x20	460	0.62		100	18x32	1280	0.38
	47	12.5x25	610	0.50		120	18x36	1480	0.32
	68	12.5x25	730	0.39		150	18x40	1740	0.26
	100	16x32	980	0.32		180	18x40	1910	0.23
	220	18x36	1640	0.17	450v (500)	2.2	10x16	110	4.94
250v (300)	4.7	10x16	150	3.45		3.3	10x20	150	4.11
	10	10x20	240	2.70		4.7	12.5x20	190	3.47
	22	12.5x20	380	1.47		10	12.5x25	300	2.72
	33	12.5x25	510	1.15		22	16x32	500	1.48
	47	16x25	610	0.92		33	16x32	620	1.15
	68	16x32	810	0.71		47	18x32	780	0.92

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	JAMICON 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
Z	Teapo Snap-in Type (No Insulating base, PET sleeve),the last code "0" is for G-LUXON Snap-in Type (No Insulating base, PET sleeve)

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
	S	0	Standard SMD type
Ammo tape	T	1	Standard Dip & Snap-in type
		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	LL
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