## **Radial Lead Type**

Series : **FC** Type : **A** 



### **Features**

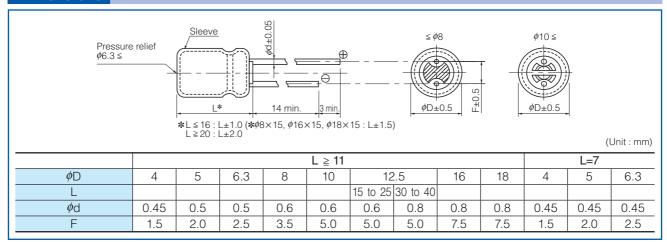
• Endurance : 105 °C 1000 h to 5000 h

Low impedance RoHS compliant

Specifications										
Category temperature range				–55 °	C to + 1	105 °C				
Rated voltage range				6.3 V.D	C to 10	00 V.D0	2			
Capacitance range				2.2 µl	to 150	000 μF				
Capacitance tolerance			±	-20 % (	120 Hz	<u>/</u> +20 °	C)			
Leakage current	l ≤ 0.0	01 CV	or 3 (µ/	A) After	2 minu	utes (W	/hichev	er is g	reater)	
Discipation feator	V.DC	6.3	10	16	25	35	50	63	100	(120 Hz/, 20 °C)
Dissipation factor (tan $\delta$ )	tan $\delta$	0.22	0.19	0.16	0.14	0.12	0.10	0.08	0.07	(120 HZ/+20 C)
(tan 0)	For ca	pacitar	nce val	ue ≥ 10	)00 μF,	add 0.	02 per	every	1000 μ	F.
Endurance		shall not all meet	exceed the limi	d the rat its spec	ed worl	king vol ellow.	tage) w	hen the	e capac	itors are restored to
	Capacitance change	Within	±20 %	6 of the	initial	value			100 0.07 (120 Hz/+20 120 Hz/+20 120 μF. e applied (The sum capacitors are restor to φ18 : 5000 hours	
	tan $\delta$	≤ 200	% of th	ne initia	l limit					
	DC leakage current	Within	the ini	itial lim	t				ery 1000 μF.  value applied (The sum of E the capacitors are restored 2.5 to \$\phi\$18 : 5000 hours	
Shelf life	After storage for 1000 h at +20 °C, capacitors sl									
AEC-Q200				AEC-C	200 cc	mpliar	nt			

Frequency correct	ion factor for ripple	current				
Rated voltage (V.DC)	Capacitance (µF)		F	requency (Hz	)	
hated voltage (v.bc)	Сараспансе (рг.)	60	120	1 k	10 k	100 k
	2.2 to 330	0.55	0.65	0.85	0.90	1.00
6.3 to 100	390 to 1000	0.70	0.75	0.90	0.95	1.00
6.3 (0 100	1200 to 2200	0.75	0.80	0.90	0.95	1.00
	2700 to 15000	0.80	0.85	0.95	1.00	1.00

## **Dimensions**



## Case size/ Impedance/ Ripple current

Rated voltage (V.DC)	6.3 V	/.DC to 3	35 V.DC		50 V.D	С		63 V.D	С		100 V.E	C
Case size (mm)	(Ω)/(10	dance 0 kHz)	Ripple current (mA r.m.s)		dance 0 kHz)	Ripple current (mA r.m.s)		dance 0 kHz)	Ripple current (mA r.m.s)	(Ω)/(10	dance 0 kHz)	Ripple current (mA r.m.s)
( <i>ϕ</i> D×L) \	20 °C	−10 °C	/(100 kHz)	20 °C	−10 °C	/(100 kHz)	20 °C	−10 °C	/(100 kHz)	20 °C	−10 °C	/(100 kHz)
4 × 7	2.00	5.00	65									
5 × 7	0.950	2.40	120									
6.3 × 7	0.450	1.20	200									
5 × 11	0.800	1.60	175	*	*	*	2.00	4.00	145	4.10	8.20	80
6.3 × 11.2	0.350	0.700	290	0.600	1.20	260	1.00	2.00	240	1.80	3.60	114
8 × 11.5	0.117	0.234	555	0.234	0.468	485	0.342	0.684	405	0.680	1.36	260
8 × 15	0.085	0.170	730	0.155	0.310	635	0.230	0.460	535	0.450	0.900	340
8 × 20	0.065	0.130	995	0.120	0.240	860	0.178	0.356	690	0.330	0.660	455
10 × 12.5	0.090	0.180	755	0.162	0.324	615	0.256	0.512	535	0.530	1.06	306
10 × 16	0.068	0.136	1050	0.119	0.238	850	0.194	0.388	600	0.360	0.720	400
10 × 20	0.052	0.104	1220	0.090	0.180	1030	0.147	0.294	885	0.240	0.480	463
10 × 25	0.045	0.090	1440	0.082	0.164	1200	0.130	0.260	1050	0.210	0.420	599
10 × 30	0.035	0.070	1815	0.060	0.120	1610	0.090	0.180	1300	0.150	0.300	698
12.5 × 15	0.065	0.130	1205	0.110	0.220	1150	0.150	0.300	1020	0.230	0.460	511
12.5 × 20	0.038	0.076	1655	0.063	0.126	1480	0.085	0.170	1285	0.180	0.360	671
12.5 × 25	0.030	0.060	1945	0.050	0.100	1832	0.070	0.140	1720	0.110	0.220	807
12.5 × 30	0.025	0.050	2310	0.040	0.080	2215	0.055	0.110	2090	0.098	0.196	937
12.5 × 35	0.022	0.044	2510	0.034	0.068	2285	0.047	0.094	2265	0.087	0.174	1040
12.5 × 40	0.018	0.036	2655	0.030	0.060	2590	0.042	0.084	2560	0.072	0.144	1130
16 × 15	0.043	0.086	1690	0.080	0.160	1610	0.090	0.180	1410	0.140	0.280	793
16 × 20	0.029	0.058	2205	0.048	0.096	1835	0.059	0.118	1765	0.110	0.220	995
16 × 25	0.022	0.044	2555	0.034	0.068	2235	0.050	0.100	2160	0.089	0.178	1170
16 × 31.5	0.018	0.036	3010	0.028	0.056	2700	0.043	0.086	2670	0.062	0.124	1520
16 × 35.5	0.016	0.032	3150	0.025	0.050	2790	0.036	0.072	2770	0.053	0.106	1730
16 × 40	0.015	0.030	3360	0.023	0.046	2845	0.030	0.060	2825	0.047	0.094	1920
18 × 15	0.038	0.076	2000	0.068	0.136	1900	0.086	0.172	1690	0.120	0.240	917
18 × 20	0.028	0.056	2490	0.042	0.084	2420	0.055	0.110	2290	0.080	0.160	1230
18 × 25	0.020	0.040	2740	0.029	0.058	2610	0.043	0.086	2585	0.070	0.140	1420
18 × 31.5	0.016	0.032	3635	0.025	0.050	3000	0.032	0.064	2950	0.062	0.124	1600
18 × 35.5	0.015	0.030	3680	0.023	0.046	3100	0.030	0.060	3095	0.041	0.082	1770
18 × 40	0.014	0.028	3735	-	-	-	0.025	0.050	3205	0.036	0.072	2300

Case size (mm)	Capacitance	Impedance (	(Ω)/(100 kHz)	Ripple current
$(\phi D \times L)$	(μF)	20 °C	−10 °C	(mA r.m.s)(100 kHz)
	2.2	1.80	3.60	45
	3.3	1.30	2.60	65
	4.7	1.30	2.60	95
5 × 11	10	1.30	2.60	125
3 × 11	12	1.30	2.60	135
	15	1.30	2.60	145
	18	1.30	2.60	155
	22	1.30	2.60	155

## **Characteristics list**

		Case si	ze (mm)		ecificati			ead len			,, , , , , , , , , , , , , , , , , , , ,		
Datad	Con	0400 01.		Ripple				1	ad spa			IVIIII. I GOIX	aging a ty
Rated voltage (V.DC)		φD	L	Qurront			Lead dia. $\phi$ d	Straight	Taping		Part No.	200   200	Taping (pcs)
	27	4	7	65	2.000	1000	0.45	1.5	5.0	2.5	EEAFC0J270()	200	2000
	56	5	7	120	0.950	1000	0.45	2.0	5.0	2.5	EEAFC0J560()	200	2000
	100	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC0J101()	200	2000
	120	6.3	7	200	0.450	1000	0.45	2.5	5.0	2.5	EEAFC0J121()	200	2000
	220	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC0J221()	200	2000
	270	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC0J271()	200	2000
	330	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC0J331S()	200	2000
	390	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC0J391()	200	1000
	470	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC0J471()	200	1000
	560	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC0J561()	200	1000
	820	8	15	730	0.085	2000	0.60	3.5	5.0		EEUFC0J821L()	200	1000
	020	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC0J821()	200	500
	1000	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC0J102()	200	500
	1200	8	20	995	0.065	2000	0.60	3.5	5.0		EEUFC0J122L()	200	1000
	1200	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC0J122()	200	500
	1500	10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC0J152()	200	500
	1000	12.5	15	1205	0.065	5000	0.60	5.0	5.0		EEUFC0J152S()	200	500
	1800	10	25	1440	0.045	3000	0.60	5.0	5.0		EEUFC0J182()		500
	2200	10	25	1440	0.045	3000	0.60	5.0	5.0		EEUFC0J222()	200	500
6.3	2200	16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC0J222S()	100	250
		10	30	1815	0.035	3000	0.60	5.0			EEUFC0J272L	<del></del>	
	2700	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC0J272()		500
		16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC0J272S()		250
	3300	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC0J332()	200	500
		18	15	2000	0.038	5000	0.80	7.5	7.5		EEUFC0J332S()	100	250
	3900	12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC0J392()		500
	4700	12.5	30	2310	0.025	5000	0.80	5.0			EEUFC0J472		
		16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC0J472S()		250
	5600	12.5	35	2510	0.022	5000	0.80	5.0			EEUFC0J562L		
		16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC0J562()	_	250
		12.5	40	2655	0.018	5000	0.80	5.0			EEUFC0J682L	100	
	6800	16	25	2555	0.022	5000	0.80	7.5	7.5		EEUFC0J682()	100	250
		18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC0J682S()		250
	8200	16	31.5	3010	0.018	5000	0.80	7.5			EEUFC0J822	1	
	10000	16	35.5	3150	0.016	5000	0.80	7.5			EEUFC0J103		
		18	25	2740	0.020	5000	0.80	7.5	7.5		EEUFC0J103S()	-	250
	12000	16	40	3360	0.015	5000	0.80	7.5			EEUFC0J123L		
		18	31.5	3635	0.016	5000	0.80	7.5			EEUFC0J123		
	15000	18	35.5	3680	0.015	5000	0.80	7.5			EEUFC0J153	50	

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "()". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

<sup>·</sup> Please refer to the page of "Taping dimensions".

# **Panasonic**

## **Aluminum Electrolytic Capacitors (Radial Lead Type)**

## **Characteristics list**

		Case si	ze (mm)	Sp	ecificati	on	L	ead len	ath (mn	า)		Min. Pack	aging Q'ty
Rated voltage (V.DC)				Ripple	Impedance		Lead dia. $\phi$ d		ad spa		Part No.	(a) 200 (b) 200 (c) 200 (d) 200 (d) 200 (e) 200 (f) 100	Taping (pcs)
	22	4	7	65	2.000	1000	0.45	1.5	5.0	2.5	EEAFC1A220()	200	2000
	39	5	7	120	0.950	1000	0.45	2.0	5.0	2.5	EEAFC1A390()	200	2000
	00	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1A820()	200	2000
	82	6.3	7	200	0.450	1000	0.45	2.5	5.0	2.5	EEAFC1A820()	200	2000
	100	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1A101S()	200	2000
	150	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1A151()	200	2000
	180	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1A181()	200	2000
	220	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1A221S()	200	2000
	330	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1A331()	200	1000
	390	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1A391()	200	1000
	470	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1A471()	200	1000
	560	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1A561()	200	500
	680	8	15	730	0.085	2000	0.60	3.5	5.0		EEUFC1A681L()	200	1000
	080	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1A681()	200	500
	820	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1A821()	200	500
	1000	8	20	995	0.065	2000	0.60	3.5	5.0		EEUFC1A102L()	200	1000
	1000	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1A102()	200	500
	1000	10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC1A122()	200	500
	1200	12.5	15	1205	0.065	5000	0.60	5.0	5.0		EEUFC1A122S()	200	500
10	1500	10	25	1440	0.045	3000	0.60	5.0	5.0		EEUFC1A152()	200	500
10	1900	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1A182()	200	500
	1800	16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC1A182S()	100	250
	2200	10	30	1815	0.035	3000	0.60	5.0			EEUFC1A222L	100	
	2200	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1A222()	200	500
	2700	12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1A272()	200	500
	2700	18	15	2000	0.038	5000	0.80	7.5	7.5		EEUFC1A272S()	100	250
	3300	12.5	30	2310	0.025	5000	0.80	5.0			EEUFC1A332	100	
	3300	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1A332S()	100	250
	3900	12.5	35	2510	0.022	5000	0.80	5.0			EEUFC1A392L	100	
	3900	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1A392()	100	250
	4700	12.5	40	2655	0.018	5000	0.80	5.0			EEUFC1A472L	100	
	4700	16	25	2555	0.022	5000	0.80	7.5	7.5		EEUFC1A472()	100	250
	5600	16	25	2555	0.022	5000	0.80	7.5	7.5		EEUFC1A562()	100	250
	3000	18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC1A562S()	100	250
	6800	16	31.5	3010	0.018	5000	0.80	7.5			EEUFC1A682	100	
		18	25	2740	0.020	5000	0.80	7.5	7.5		EEUFC1A682S()	100	250
	8200	16	35.5	3150	0.016	5000	0.80	7.5			EEUFC1A822L	100	
	0200	18	31.5	3635	0.016	5000	0.80	7.5			EEUFC1A822	50	
	10000	18	35.5	3680	0.015	5000	0.80	7.5			EEUFC1A103	50	
	12000	18	40	3735	0.014	5000	0.80	7.5			EEUFC1A123	50	

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "( )". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

<sup>·</sup> Please refer to the page of "Taping dimensions".

# **Panasonic**

## Aluminum Electrolytic Capacitors (Radial Lead Type)

## **Characteristics list**

		Casa si	ze (mm)	Sn	ecificati	on	1	ead len		n)	, . , .	Min Pack	aging O'ty
D		Case si	 	Ripple					ad spa			IVIIII. I ack	aging Q ty
Rated voltage (V.DC)		φD	L		Impedance (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. <i>ø</i> d	Straight	Taping		Part No.	Color   Colo	Taping (pcs)
	15	4	7	65	2.000	1000	0.45	1.5	5.0	2.5	EEAFC1C150()	200	2000
	27	5	7	120	0.950	1000	0.45	2.0	5.0	2.5	EEAFC1C270()	200	2000
	47	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1C470()	200	2000
	56	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1C560()	200	2000
		6.3	7	200	0.450	1000	0.45	2.5	5.0	2.5	EEAFC1C560()	1	2000
	68	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1C680()	1	2000
	100	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1C101()		2000
	120	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1C121()	1	2000
	220	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1C221()		1000
	270	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1C271( )		1000
	330	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1C331()		1000
	390	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1C391()		500
	470	8	15	730	0.085	2000	0.60	3.5	5.0		EEUFC1C471L()		1000
	500	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1C471()		500
	560	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1C561()		500
	680	8	20	995	0.065	2000	0.60	3.5	5.0		EEUFC1C681L()	-	1000
		10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1C681()	<del>                                     </del>	500
	820	10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC1C821()	<del>                                     </del>	500
		12.5 10	15 20	1205 1220	0.065	5000 3000	0.60	5.0 5.0	5.0 5.0		EEUFC1C821S() EEUFC1C102S()		500
	1000	10	25	1440	0.052	3000	0.60	5.0	5.0		EEUFC1C102S( )		500
16		10	25	1440	0.045	3000	0.60	5.0	5.0		EEUFC1C102( )		500
	1200	16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC1C122( )		250
		10	30	1815	0.045	3000	0.60	5.0	1.5		EEUFC1C152L		230
	1500	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1C152( )		500
	1000	16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC1C152S( )		250
		12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1C182( )		500
	1800	18	15	2000	0.038	5000	0.80	7.5	7.5		EEUFC1C182S( )		250
		12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1C222( )	_	500
	2200	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1C222S()	-	250
		12.5	30	2310	0.025	5000	0.80	5.0			EEUFC1C272L		
	2700	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1C272()	-	250
		12.5	35	2510	0.022	5000	0.80	5.0			EEUFC1C332		
	3300	18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC1C332S()	100	250
	0000	16	25	2555	0.022	5000	0.80	7.5	7.5		EEUFC1C392()	100	250
	3900	18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC1C392S()	100	250
	4700	16	31.5	3010	0.018	5000	0.80	7.5			EEUFC1C472	100	
	4700	18	25	2740	0.020	5000	0.80	7.5	7.5		EEUFC1C472S()	100	250
	ECOO	16	35.5	3150	0.016	5000	0.80	7.5			EEUFC1C562L	100	
	5600	18	31.5	3635	0.016	5000	0.80	7.5			EEUFC1C562	50	
	6800	16	40	3360	0.015	5000	0.80	7.5			EEUFC1C682	100	
_	8200	18	35.5	3680	0.015	5000	0.80	7.5			EEUFC1C822	50	
· When	rogulostina					'B" or "H"	la - 4	the "( )"		and the late of th	5 mm 75 mm H-25 mm		

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "()". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

<sup>·</sup> Please refer to the page of "Taping dimensions".

## **Characteristics list**

		Casa si	ze (mm)	Sn	ecificati	on	1	ead len	ath (mn	0)		Min Dook	oging O'ty
5		Case Si.	26 (11111)	Ripple	ecincati	011		1	<u> </u>			IVIIII. Fack	agilig Q ty
Rated voltage (V.DC)	Cap. (±20 %) (µF)	φD	L	current	Impedance (100 kHz) (+20 °C) ( $\Omega$ )	Endurance (hours)	Lead dia. <i>ø</i> d	Straight	ad spa Taping *B		Part No.	(pcs)  ) 200 ] 3() 100 ] 100 ] 100 ] 100 ] 50 ] 50 ] 50	Taping (pcs)
	10	4	7	65	2.000	1000	0.45	1.5	5.0	2.5	EEAFC1E100()	200	2000
	22	5	7	120	0.950	1000	0.45	2.0	5.0	2.5	EEAFC1E220()	200	2000
	39	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1E390()	200	2000
	00	6.3	7	200	0.450	1000	0.45	2.5	5.0	2.5	EEAFC1E390()	200	2000
	47	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1E470()	200	2000
	82	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1E820()	200	2000
	100	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1E101S()	200	2000
	180	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1E181()	200	1000
	220	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1E221()	200	1000
	270	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1E271()	200	500
	330	8	15	730	0.085	2000	0.60	3.5	5.0		EEUFC1E331L()	200	1000
	330	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1E331()	200	500
	390	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1E391()	200	500
	470	8	20	995	0.065	2000	0.60	3.5	5.0		EEUFC1E471L()	200	1000
	470	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1E471()	200	500
	560	10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC1E561()	200	500
	300	12.5	15	1205	0.065	5000	0.60	5.0	5.0		EEUFC1E561S()	200	500
	680	10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC1E681()	200	500
25	820	10	25	1440	0.045	3000	0.60	5.0	5.0		EEUFC1E821()	200	500
23	020	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1E821S()	200	500
		10	30	1815	0.035	3000	0.60	5.0			EEUFC1E102L	100	
	1000	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1E102()	200	500
		16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC1E102S()	100	250
	1200	12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1E122()	200	500
	1200	18	15	2000	0.038	5000	0.80	7.5	7.5		EEUFC1E122S()	100	250
	1500	12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1E152()	200	500
	1300	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1E152S()	100	250
	1800	12.5	30	2310	0.025	5000	0.80	5.0			EEUFC1E182L	100	
	1000	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1E182()	100	250
	2200	12.5	35	2510	0.022	5000	0.80	5.0			EEUFC1E222	100	
	2200	18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC1E222S()	100	250
	2700	16	25	2555	0.022	5000	0.80	7.5	7.5		EEUFC1E272()	100	250
	3300	16	31.5	3010	0.018	5000	0.80	7.5			EEUFC1E332	100	
	5500	18	25	2740	0.020	5000	0.80	7.5	7.5		EEUFC1E332S()	100	250
	3900	16	35.5	3150	0.016	5000	0.80	7.5			EEUFC1E392L	100	
	3300	18	31.5	3635	0.016	5000	0.80	7.5			EEUFC1E392	50	
	4700	18	35.5	3680	0.015	5000	0.80	7.5			EEUFC1E472	50	
	5600	18	40	3735	0.014	5000	0.80	7.5			EEUFC1E562	50	

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "( )". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

<sup>·</sup> Please refer to the page of "Taping dimensions".

## **Characteristics list**

				Endura	ance: 1	105 °C 9	· ·				ı, <i>φ</i> 10=3000 h, <i>φ</i> 12.5		
		Case siz	ze (mm)		ecificati	on	L	ead len	gth (mn	า)		Min. Pack	aging Q'ty
Rated voltage (V.DC)		φD		Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	Impedance (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. <i>ø</i> d	Le	ad spa Taping *B	ce Taping <b>*</b> H	Part No.	Straight leads (pcs)  200 : 20	Taping (pcs)
	6.8	4	7	65	2.000	1000	0.45	1.5	5.0	2.5	EEAFC1V6R8()	200	2000
	12	5	7	120	0.950	1000	0.45	2.0	5.0	2.5	EEAFC1V120()	200	2000
	22	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1V220()	200	2000
	27	5	11	175	0.800	1000	0.50	2.0	5.0	2.5	EEUFC1V270()	200	2000
	21	6.3	7	200	0.450	1000	0.45	2.5	5.0	2.5	EEAFC1V270()	200	2000
	33	5	11	175	0.080	1000	0.50	2.0	5.0	2.5	EEUFC1V330()	200	2000
	47	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1V470()	200	2000
	56	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1V560()	200	2000
	68	6.3	11.2	290	0.350	1000	0.50	2.5	5.0	2.5	EEUFC1V680()	200	2000
	100	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1V101()	200	1000
	120	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1V121()	200	1000
	150	8	11.5	555	0.117	2000	0.60	3.5	5.0		EEUFC1V151()	200	1000
	180	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1V181()	200	500
	000	8	15	730	0.085	2000	0.60	3.5	5.0		EEUFC1V221L()	200	1000
	220	10	12.5	755	0.090	3000	0.60	5.0	5.0		EEUFC1V221()	200	500
	270	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1V271()	200	500
	000	8	20	995	0.065	2000	0.60	3.5	5.0		EEUFC1V331L()	200	1000
	330	10	16	1050	0.068	3000	0.60	5.0	5.0		EEUFC1V331()	200	500
		10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC1V391()	200	500
	390	12.5	15	1205	0.065	5000	0.60	5.0	5.0		EEUFC1V391S()		500
	470	10	20	1220	0.052	3000	0.60	5.0	5.0		EEUFC1V471( )		500
		10	25	1440	0.045	3000	0.60	5.0	5.0		EEUFC1V561()		500
35	560	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1V561S()		500
		10	30	1815	0.035	3000	0.60	5.0			EEUFC1V681L		
	680	12.5	20	1655	0.038	5000	0.60	5.0	5.0		EEUFC1V681()		500
		16	15	1690	0.043	5000	0.80	7.5	7.5		EEUFC1V681S()		250
		12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1V821L( )		500
	820	18	15	2000	0.038	5000	0.80	7.5	7.5		EEUFC1V821( )		250
		12.5	25	1945	0.030	5000	0.60	5.0	5.0		EEUFC1V102( )		500
	1000	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1V102S()		250
		12.5	30	2310	0.025	5000	0.80	5.0			EEUFC1V122L		
	1200	16	20	2205	0.029	5000	0.80	7.5	7.5		EEUFC1V122( )		250
		12.5	35	2510	0.022	5000	0.80	5.0			EEUFC1V152L		
	1500	16	25	2555	0.022	5000	0.80	7.5	7.5		EEUFC1V152( )		250
	1000	18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC1V152S( )		250
		12.5	40	2655	0.018	5000	0.80	5.0	7.0		EEUFC1V182L		200
	1800	16	25	2555	0.010	5000	0.80	7.5	7.5		EEUFC1V182( )		250
	1000	18	20	2490	0.028	5000	0.80	7.5	7.5		EEUFC1V182S( )		250
		16	31.5	3010	0.028	5000	0.80	7.5	7.5		EEUFC1V222		230
	2200	18	25	2740	0.018	5000	0.80	7.5	7.5		EEUFC1V222		250
		16	35.5	3150	0.020	5000	0.80	7.5	1.0		EEUFC1V2Z2S( )		250
	2700			_									
	2200	18	31.5	3635	0.016	5000	0.80	7.5			EEUFC1V272		
	3300	18	35.5	3680	0.015	5000	0.80	7.5			EEUFC1V332		
	3900	18	40	3735	0.014	5000	0.80	7.5			EEUFC1V392	50	

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "()". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

 $<sup>\</sup>cdot$  Please refer to the page of "Taping dimensions".

# **Panasonic**

## Aluminum Electrolytic Capacitors (Radial Lead Type)

## **Characteristics list**

		Casa si	70 (mm)		ecificati			ead len			i, φ10=3000 ii, φ12.3		aging Q'ty
5		Case si	ze (mm)	Dinnlo				1	<u> </u>	<i>'</i>		IVIIII. Pack	aging Q ty
Rated voltage (V.DC)	Cap. (±20 %) (µF)	$\phi$ D	L	current	Impedance (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. <i>ø</i> d	Straight	ad spa Taping		Part No.	Straight leads (pcs)	Taping (pcs)
	2.2	5	11	45	1.800	1000	0.50	2.0	5.0	2.5	EEUFC1H2R2()	200	2000
	3.3	5	11	65	1.300	1000	0.50	2.0	5.0	2.5	EEUFC1H3R3()	200	2000
	4.7	5	11	95	1.300	1000	0.50	2.0	5.0	2.5	EEUFC1H4R7()	200	2000
	10	5	11	125	1.300	1000	0.50	2.0	5.0	2.5	EEUFC1H100L()	200	2000
	12	5	11	135	1.300	1000	0.50	2.0	5.0	2.5	EEUFC1H120()	200	2000
	15 18	5 5	11 11	145 155	1.300	1000	0.50	2.0	5.0 5.0	2.5	EEUFC1H150() EEUFC1H180()	200	2000
	22	5	11	155	1.300	1000	0.50	2.0	5.0	2.5	EEUFC1H180( )	200	2000
	33	6.3	11.2	260	0.600	1000	0.50	2.5	5.0	2.5	EEUFC1H330( )	200	2000
	39	6.3	11.2	260	0.600	1000	0.50	2.5	5.0	2.5	EEUFC1H390( )	200	2000
	47	6.3	11.2	260	0.600	1000	0.50	2.5	5.0	2.5	EEUFC1H470( )	200	2000
	68	8	11.5	485	0.234	2000	0.60	3.5	5.0	2.0	EEUFC1H680( )	200	1000
	82	8	11.5	485	0.234	2000	0.60	3.5	5.0		EEUFC1H820()	200	1000
	100	10	12.5	615	0.162	3000	0.60	5.0	5.0		EEUFC1H101()	200	500
	100	8	15	635	0.155	2000	0.60	3.5	5.0		EEUFC1H121L()	200	1000
	120	10	12.5	615	0.162	3000	0.60	5.0	5.0		EEUFC1H121()	200	500
	150	10	16	850	0.119	3000	0.60	5.0	5.0		EEUFC1H151()	200	500
	180	8	20	860	0.120	2000	0.60	3.5	5.0		EEUFC1H181L()	200	1000
	100	10	16	850	0.119	3000	0.60	5.0	5.0		EEUFC1H181()	200	500
	220	10	20	1030	0.090	3000	0.60	5.0	5.0		EEUFC1H221()	200	500
50		12.5	15	1150	0.110	5000	0.60	5.0	5.0		EEUFC1H221S()	200	500
	270	10	25	1200	0.082	3000	0.60	5.0	5.0		EEUFC1H271()	200	500
	330	10	30	1610	0.060	3000	0.60	5.0			EEUFC1H331L	100	
		12.5	20	1480	0.063	5000	0.60	5.0	5.0		EEUFC1H331()	200	500
	390	12.5	20	1480	0.063	5000	0.60	5.0	5.0		EEUFC1H391()	200	500
		16 10	15 30	1610	0.080	5000	0.80	7.5 5.0	7.5		EEUFC1H391S() EEUFC1H471L	100	250
	470	12.5	25	1610 1832	0.050	3000 5000	0.60	5.0	5.0		EEUFC1H471( )	100	500
		12.5	25	1832	0.050	5000	0.60	5.0	5.0		EEUFC1H561( )	200	500
	560	18	15	1900	0.068	5000	0.80	7.5	7.5		EEUFC1H561S( )	100	250
		12.5	30	2215	0.040	5000	0.80	5.0	7.0		EEUFC1H681L	100	
	680	16	20	1835	0.048	5000	0.80	7.5	7.5		EEUFC1H681()	100	250
		12.5	35	2285	0.034	5000	0.80	5.0			EEUFC1H821L	100	
	820	18	20	2420	0.042	5000	0.80	7.5	7.5		EEUFC1H821()	100	250
	1000	12.5	40	2590	0.030	5000	0.80	5.0			EEUFC1H102L	100	
	1000	16	25	2235	0.034	5000	0.80	7.5	7.5		EEUFC1H102()	100	250
	1200	16	31.5	2700	0.028	5000	0.80	7.5			EEUFC1H122	100	
	1200	18	25	2610	0.029	5000	0.80	7.5	7.5		EEUFC1H122S()	100	250
	1500	16	35.5	2790	0.025	5000	0.80	7.5			EEUFC1H152L	100	
	1800	16	40	2845	0.023	5000	0.80	7.5			EEUFC1H182L	100	
		18	31.5	3000	0.025	5000	0.80	7.5			EEUFC1H182	50	
	2200	18	35.5	3100	0.023	5000	0.80	7.5			EEUFC1H222	50	

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "()". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

<sup>·</sup> Please refer to the page of "Taping dimensions".

## **Characteristics list**

		Case si	ze (mm)	Sn	ecificati	on		Lead ler	nath (mr	n)		Min Pack	aging O'ty
Datad	000	0400 01.		Rinnle		011		1	ead spa			IVIIII. I dok	dging a ty
Rated voltage (V.DC)	Cap. (±20 %) (µF)	φD	L	current		Endurance (hours)	Lead dia. $\phi$ d	Straight	Taping	Taping *H	Part No.	(pcs)	Taping (pcs)
	12	5	11	145	2.000	1000	0.50	2.0	5.0	2.5	EEUFC1J120()	200	2000
	22	6.3	11.2	240	1.000	1000	0.50	2.5	5.0	2.5	EEUFC1J220()	200	2000
	33	6.3	11.2	240	1.000	1000	0.50	2.5	5.0	2.5	EEUFC1J330()	200	2000
	47	8	11.5	405	0.342	2000	0.60	3.5	5.0		EEUFC1J470()	200	1000
	56	8	11.5	405	0.342	2000	0.60	3.5	5.0		EEUFC1J560()	200	1000
	68	8	11.5	405	0.342	2000	0.60	3.5	5.0		EEUFC1J680()	200	1000
	82	10	12.5	535	0.256	3000	0.60	5.0	5.0		EEUFC1J820()	200	500
	100	8	15	535	0.230	2000	0.60	3.5	5.0		EEUFC1J101L()	200	1000
	100	10	12.5	535	0.256	3000	0.60	5.0	5.0		EEUFC1J101()	200	500
	120	10	16	600	0.194	3000	0.60	5.0	5.0		EEUFC1J121()	200	500
	150	8	20	690	0.178	2000	0.60	3.5	5.0		EEUFC1J151()	200	1000
	180	10	20	885	0.147	3000	0.60	5.0	5.0		EEUFC1J181()	200	500
	100	12.5	15	1020	0.150	5000	0.60	5.0	5.0		EEUFC1J181S()	200	500
		10	20	885	0.147	3000	0.60	5.0	5.0		EEUFC1J221X()	200	500
	220	10	25	1050	0.130	3000	0.60	5.0	5.0		EEUFC1J221()	200	500
		12.5	20	1285	0.085	5000	0.60	5.0	5.0		EEUFC1J221S()	200	500
	270	16	15	1410	0.090	5000	0.80	7.5	7.5		EEUFC1J271()	100	250
63	330	10	30	1300	0.090	3000	0.60	5.0			EEUFC1J331L	100	
00	550	12.5	20	1285	0.085	5000	0.60	5.0	5.0		EEUFC1J331()	200	500
	390	12.5	25	1720	0.070	5000	0.60	5.0	5.0		EEUFC1J391()	200	500
	000	18	15	1690	0.086	5000	0.80	7.5	7.5		EEUFC1J391S()	100	250
	470	12.5	30	2090	0.055	5000	0.80	5.0			EEUFC1J471L	100	
	470	16	20	1765	0.059	5000	0.80	7.5	7.5		EEUFC1J471()	100	250
	560	16	25	2160	0.050	5000	0.80	7.5	7.5		EEUFC1J561()	100	250
		12.5	35	2265	0.047	5000	0.80	5.0			EEUFC1J681L	100	
	680	16	25	2160	0.050	5000	0.80	7.5	7.5		EEUFC1J681()	100	250
		18	20	2290	0.055	5000	0.80	7.5	7.5		EEUFC1J681S()	100	250
		12.5	40	2560	0.042	5000	0.80	5.0			EEUFC1J821L	100	
	820	16	31.5	2670	0.043	5000	0.80	7.5			EEUFC1J821	100	
		18	25	2585	0.043	5000	0.80	7.5	7.5		EEUFC1J821S()	100	250
	1000	16	31.5	2670	0.043	5000	0.80	7.5			EEUFC1J102U	100	
	1000	16	35.5	2770	0.036	5000	0.80	7.5			EEUFC1J102	100	
	1200	16	40	2825	0.030	5000	0.80	7.5			EEUFC1J122L	100	
	1200	18	31.5	2950	0.032	5000	0.80	7.5			EEUFC1J122	50	
	1500	18	35.5	3095	0.030	5000	0.80	7.5			EEUFC1J152	50	
	1800	18	40	3205	0.025	5000	0.80	7.5			EEUFC1J182	50	

<sup>·</sup> When requesting taped product, please put the letter "B" or "H" between the "()". Lead wire pitch \*B=5 mm, 7.5 mm, H=2.5 mm.

<sup>·</sup> Please refer to the page of "Taping dimensions".



## **Characteristics list**

		Case si	ze (mm)	Sp	ecificat	ion	L	ead len	gth (mn	٦)		Min. Pack	aging Q'ty
Rated voltage (V.DC)	Cap. (±20 %) (µF)	φD		Ripple current (100 kHz) (+105 °C) (mA r.m.s.)	Impedance (100 kHz) (+20 °C) (Ω)	Endurance (hours)	Lead dia. ød	Le Straight	ad space		Part No.	Min. Packar Straight leads (pcs)  200 200 200 200 200 200 200 200 200 2	Taping (pcs)
	5.6	5	11	80	4.10	1000	0.5	2.0	5.0	2.5	EEUFC2A5R6()	200	2000
	12	6.3	11.2	114	1.80	1000	0.5	2.5	5.0	2.5	EEUFC2A120()	200	2000
	22	8	11.5	260	0.680	2000	0.6	3.5	5.0		EEUFC2A220()	200	1000
1 100 1	33	8	15	340	0.450	2000	0.6	3.5	5.0		EEUFC2A330L()	200	1000
	55	10	12.5	306	0.530	3000	0.6	5.0	5.0		EEUFC2A330()	200	500
	39	8	20	455	0.330	2000	0.6	5.0	5.0		EEUFC2A390L()	200	1000
		10	16	400	0.360	3000	0.6	5.0	5.0		EEUFC2A390()	200	500
	56	10	20	463	0.240	3000	0.6	5.0	5.0		EEUFC2A560()	200	500
	68	10	25	599	0.210	3000	0.6	5.0	5.0		EEUFC2A680L()	200	500
	00	12.5	15	511	0.230	5000	0.6	5.0	5.0		EEUFC2A680()	200	500
	100	10	30	698	0.150	3000	0.6	5.0			EEUFC2A101L	100	
	100	12.5	20	671	0.180	5000	0.6	5.0	5.0		EEUFC2A101()	200	500
	120	16	15	793	0.140	5000	0.8	7.5	7.5		EEUFC2A121S()	100	250
100	150	12.5	25	807	0.110	5000	0.6	5.0	5.0		EEUFC2A151()	200	500
100	130	18	15	917	0.120	5000	0.8	7.5	7.5		EEUFC2A151S()	100	250
	180	12.5	30	937	0.098	5000	0.8	5.0			EEUFC2A181L	100	
	160	16	20	995	0.110	5000	0.8	7.5	7.5		EEUFC2A181()	100	250
	220	12.5	35	1040	0.087	5000	0.8	5.0			EEUFC2A221L	100	
	220	16	25	1170	0.089	5000	0.8	7.5	7.5		EEUFC2A221()	100	250
	270	12.5	40	1130	0.072	5000	0.8	5.0			EEUFC2A271L	100	
	270	18	20	1230	0.080	5000	0.8	7.5	7.5		EEUFC2A271S()	100	250
	330	16	31.5	1520	0.062	5000	0.8	7.5			EEUFC2A331	100	
	330	18	25	1420	0.070	5000	0.8	7.5	7.5		EEUFC2A331S()	100	250
	390	16	35.5	1730	0.053	5000	0.8	7.5			EEUFC2A391L	100	
	390	18	31.5	1600	0.062	5000	0.8	7.5			EEUFC2A391	50	
	470	16	40	1920	0.047	5000	0.8	7.5			EEUFC2A471	100	
	560	18	35.5	1770	0.041	5000	0.8	7.5			EEUFC2A561	50	
	680	18	40	2300	0.036	5000	0.8	7.5			EEUFC2A681	50	

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<sup>·</sup> Please refer to the page of "Taping dimensions".