EA Series

Feature

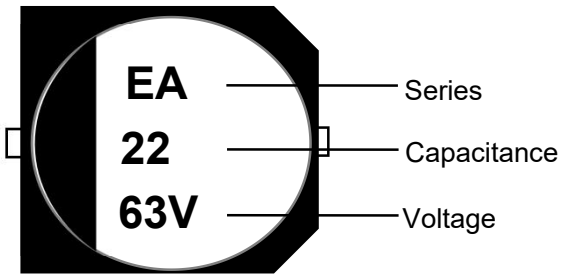
- ◆ AEC-Q200 compliant.
- ◆ Guaranteed duration: 1000~2000 hours at 125℃.
- ◆ Designed for automotive modules and high-temperature applications.
- ◆ RoHS compliant.

Items	Characteristics									
Temperature Range	-55℃ ~ +125℃									
Rated Voltage Range	6.3V ~ 100V									
Capacitance Range	1 ~ 4700 μF									
Capacitance Tolerance	±20%（20℃，120Hz）									
Leakage Current	I ≤ 0.01CV or 3μA, Take the larger of the two values (after applying the rated working voltage for 2 minutes) CR: nominal capacitance (μ F) UR: rated voltage (V).									
Dissipation Factor（tg δ）（20℃, 120Hz）	U_R(V)	6.3	10	16	25	35	50	63	100	
	tg δ	0.30	0.24	0.20	0.16	0.14	0.14	0.12	0.10	
Endurance	At 125℃, capacitors shall be subjected to the rated working voltage for the following durations: 6.3V to 50V: 2000 hours (1000 hours for those with ΦD = 6.3);63V to 100V: 1500 hours. After recovery to 20℃, the capacitors shall meet the following requirements.									
	Capacitance Change	within ±30% of the initial value								
	Dissipation Factor	≤ 300% of the initial ralted value								
	Leakage Current	≤ initial ralted value								
High temperature storage	After storing the capacitor at 125℃ without voltage application for 1000 hours, the capacitor shall meet the above endurance requirements after being recovered to 20℃.									
Low Temperature	U_R(V)	6.3	10	16	25	35	50	63	100	
	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	
	Z(-40℃)/Z(20℃)	8	6	4	3	3	3	3	3	
Resistance to soldering heat	Place the capacitor on a hot plate at 250℃ and hold for 30 seconds. Then remove the capacitor from the hot plate and allow it to recover at room temperature. The capacitor shall meet the requirements listed on the right.				Capacitance Change			within ±10% of the initial value		
					Dissipation Factor（tg δ）			≤ initial ralted value		
					Leakage Current			≤ initial ralted value		

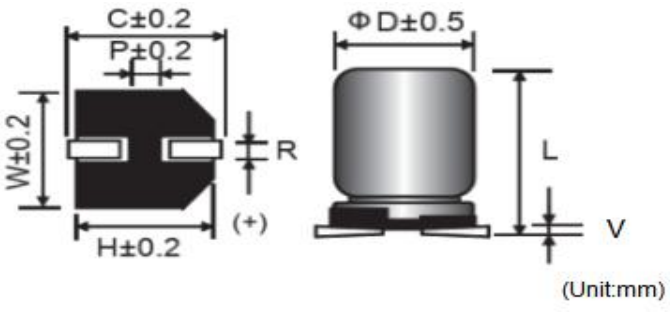
Coefficient of Frequency for Rated Ripple Current

Frequency（Hz）	100≦ F <1K	1K≦ F <10K	10K≦ F <100K	100K≦ F
C≦22	0.50	0.80	0.90	1.00
22<C≦150	0.65	0.85	0.92	1.00
150<C	0.70	0.85	0.95	1.00

Mark



Appearance & Dimension



Dimensions	ΦD	L	W	H	C	R	P	Vmax
6.3x6	6.3	6.0±0.3	6.6	6.6	7.3	0.5~0.8	2.1	0.3
6.3x7.7	6.3	7.7±0.3	6.6	6.6	7.3	0.5~0.8	2.1	0.3
8x10	8	10.0±0.5	8.3	8.3	9.0	0.7~1.1	3.2	0.3
10x10	10	10.0±0.5	10.3	10.3	11.0	0.7~1.3	4.5	0.3
12.5x13.5	12.5	13.5±0.5	13.0	13.0	13.7	1.1~1.4	4.5	0.4
16x16.5	16	16.5±0.5	17.0	17.0	18.0	1.4~1.8	6.4	0.4

EA Characteristics Table

Rated Voltage (V.DC)	Capacitance (±20%) (μF)	Dimensions(mm)		Electrical Characteristics			Minimum Packaging Quantity (PCS)
		ΦD	L	Rated Ripple Current (100KHz/125℃) (mA r.m.s)	tan δ (120Hz/20℃)	Impedance (100KHz) (20℃) (Ω)	
6.3	100	6.3	6	70	0.30	1.60	1000
	220	6.3	7.7	110	0.30	0.90	1000
	330	8	10	160	0.30	0.40	500
	470	8	10	160	0.30	0.40	500
	680	10	10	220	0.30	0.30	500
	1000	12.5	13.5	550	0.30	0.12	250
	1500	12.5	13.5	550	0.30	0.12	250
	2200	12.5	13.5	550	0.30	0.12	250
	3300	16	16.5	900	0.30	0.08	200
	4700	16	16.5	900	0.30	0.08	200
10	47	6.3	6	70	0.24	1.60	1000
	100	6.3	7.7	110	0.24	0.90	1000
	220	6.3	7.7	110	0.24	0.90	1000
	220	8	10	160	0.24	0.40	500
	330	8	10	160	0.24	0.40	500
	470	10	10	220	0.24	0.30	500
	680	12.5	13.5	550	0.24	0.12	250
	1000	12.5	13.5	550	0.24	0.12	250
	1500	12.5	13.5	550	0.24	0.12	250
	2200	16	16.5	900	0.24	0.08	200
	3300	16	16.5	900	0.24	0.08	200
16	47	6.3	6	70	0.20	1.60	1000
	100	8	10	160	0.20	0.40	500
	220	8	10	160	0.20	0.40	500
	330	10	10	220	0.20	0.30	500
	470	12.5	13.5	550	0.20	0.12	250
	680	12.5	13.5	550	0.20	0.12	250
	1000	12.5	13.5	550	0.20	0.12	250
	1500	16	16.5	900	0.20	0.08	200
	2200	16	16.5	900	0.20	0.08	200
25	33	6.3	6	70	0.16	1.60	1000
	47	6.3	7.7	110	0.16	0.90	1000
	100	6.3	7.7	110	0.16	0.90	1000
	100	8	10	160	0.16	0.40	500
	220	8	10	160	0.16	0.40	500
	220	10	10	220	0.16	0.30	500
	330	10	10	220	0.16	0.30	500
	330	12.5	13.5	550	0.16	0.12	250
	470	12.5	13.5	550	0.16	0.12	250
	680	12.5	13.5	550	0.16	0.12	250
	1000	16	16.5	900	0.16	0.08	200
	1500	16	16.5	900	0.16	0.08	200

EA Characteristics Table

Rated Voltage (V.DC)	Capacitance (±20%) (μF)	Dimensions(mm)		Electrical Characteristics			Minimum Packaging Quantity (PCS)
		ΦD	L	Rated Ripple Current (100KHz/125℃) (mA r.m.s)	tan δ (120Hz/20℃)	Impedance (100KHz) (20℃) (Ω)	
35	4.7	6.3	6	60	0.14	2.00	1000
	10	6.3	6	70	0.14	1.60	1000
	22	6.3	6	70	0.14	1.60	1000
	33	6.3	7.7	110	0.14	0.90	1000
	47	6.3	7.7	110	0.14	0.90	1000
	47	8	10	160	0.14	0.40	500
	100	8	10	160	0.14	0.40	500
	100	10	10	220	0.14	0.30	500
	220	10	10	220	0.14	0.30	500
	220	12.5	13.5	550	0.14	0.12	250
	330	12.5	13.5	550	0.14	0.12	250
	470	12.5	13.5	550	0.14	0.12	250
	470	16	16.5	900	0.14	0.08	200
	680	16	16.5	900	0.14	0.08	200
	1000	16	16.5	900	0.14	0.08	200
50	1	6.3	6	45	0.14	3.50	1000
	2.2	6.3	6	45	0.14	3.50	1000
	3.3	6.3	6	45	0.14	3.50	1000
	4.7	6.3	6	45	0.14	3.50	1000
	10	6.3	6	50	0.14	2.80	1000
	22	6.3	7.7	80	0.14	2.00	1000
	33	6.3	7.7	80	0.14	2.00	1000
	33	8	10	140	0.14	0.70	500
	47	8	10	140	0.14	0.70	500
	47	10	10	240	0.14	0.50	500
	100	10	10	240	0.14	0.50	500
	100	12.5	13.5	490	0.14	0.23	250
	220	12.5	13.5	490	0.14	0.23	250
	330	12.5	13.5	490	0.14	0.23	250
	330	16	16.5	800	0.14	0.15	200
	470	16	16.5	800	0.14	0.15	200
	680	16	16.5	800	0.14	0.15	200
63	22	8	10	100	0.12	1.00	500
	33	8	10	100	0.12	1.00	500
	47	8	10	100	0.12	1.00	500
	47	10	10	150	0.12	0.50	500
	100	10	10	150	0.12	0.50	500
	100	12.5	13.5	350	0.12	0.25	250
	220	12.5	13.5	350	0.12	0.25	250
	220	16	16.5	500	0.12	0.18	200
	330	16	16.5	500	0.12	0.18	200
	470	16	16.5	500	0.12	0.18	200
100	10	8	10	70	0.10	1.00	500
	22	8	10	70	0.10	1.00	500
	33	10	10	115	0.10	0.80	500
	47	12.5	13.5	350	0.10	0.33	250
	100	16	16.5	500	0.10	0.24	200