

# EL Series

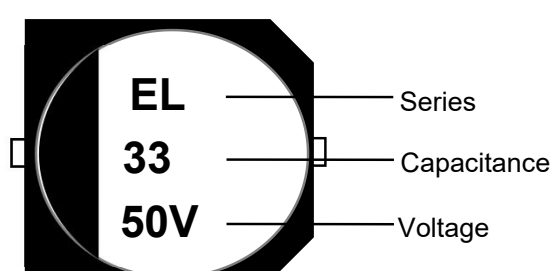
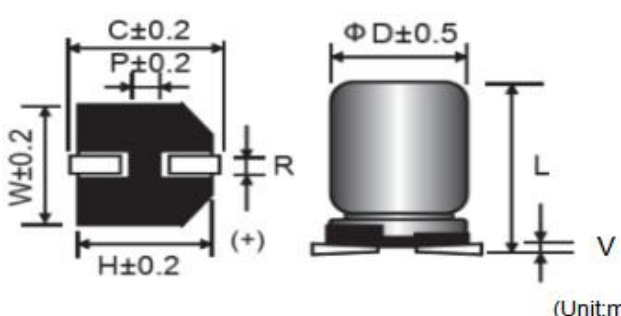
## Feature

- ◆ AEC-Q200 compliant.
- ◆ Guaranteed duration: 2000~3000 hours at 125°C.
- ◆ Suitable for SMT Process.
- ◆ Low impedance.
- ◆ RoHS compliant.

Items	Characteristics				
Temperature Range	-40°C ~ +125°C				
Rated Voltage Range	16V ~ 50V				
Capacitance Range	33 ~ 680 μF				
Capacitance Tolerance	±20% (20°C, 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 (μF) UR: rated voltage (V).				
Dissipation Factor (tg δ) (20°C, 120Hz)	U <sub>R</sub> (V)	16	25	35	50
	tg δ	0.23	0.18	0.16	0.14
Endurance	After applying the rated working voltage to the capacitor at 125°C for 3000 hours, the capacitor shall meet the following requirements after recovery to 20°C: ΦD≤6.3: 2000 hours; ΦD>6.3: 3000 hours				
	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°C without voltage application for 1000 hours, the capacitor shall meet the above endurance requirements after being recovered to 20°C.				
Low Temperature	U <sub>R</sub> (V)	16	25	35	50
	Z(-25°C)/Z(20°C)	3	3	2	2
	Z(-40°C)/Z(20°C)	4	4	3	3
Resistance to soldering heat	Place the capacitor on a hot plate at 250°C 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)	120 ≦ F < 1K	1K ≦ F < 10K	10K ≦ F < 100K	100K ≦ F
33~330	0.40	0.75	0.90	1.00

Mark	Appearance & Dimension
 <p>EL — Series 33 — Capacitance 50V — Voltage</p>	 <p>(Unit:mm)</p>

Dimensions	ΦD	L	W	H	C	R	P	Vmax
6.3x6	6.3	5.4±0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3
6.3x7.7	6.3	7.7±0.3	6.6	6.6	7.2	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
12.5x16	12.5	16.0±0.5	13.0	13.0	13.7	1.1~1.4	4.5	0.4

## EL Characteristics Table

Rated Voltage (V.DC)	Capacitance (±20%) (μF)	Dimensions(mm)		Electrical Characteristics			Minimum Packaging Quantity (PCS)
		ΦD	L	Rated Ripple Current (100KHz/125°C) (mA r.m.s)	tan δ (120Hz/20°C)	Impedance (100KHz) (20°C) (Ω)	
16	33	6.3	6	70	0.23	1.00	1000
	47	6.3	7.7	200	0.23	0.70	1000
	100	8	10	300	0.23	0.30	500
	220	8	10	300	0.23	0.30	500
	220	10	10	500	0.23	0.20	500
	330	10	10	500	0.23	0.20	500
25	33	6.3	6	70	0.18	1.00	1000
	47	6.3	7.7	200	0.18	0.70	1000
	100	8	10	300	0.18	0.30	500
	220	8	10	300	0.18	0.30	500
	220	10	10	500	0.18	0.20	500
	330	10	10	500	0.18	0.20	500
35	47	8	10	300	0.16	0.30	500
	100	8	10	300	0.16	0.30	500
	100	10	10	500	0.16	0.20	500
	220	10	10	500	0.16	0.20	500
	680	12.5	16	1470	0.16	0.06	250
50	33	8	10	250	0.14	0.36	500
	47	8	10	250	0.14	0.36	500
	47	10	10	350	0.14	0.25	500
	100	10	10	350	0.14	0.25	500