ED Series

Feature

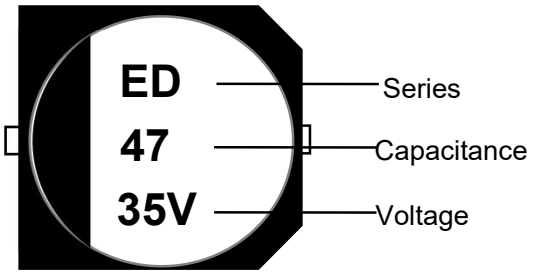
- AEC-Q200 qualified
- Guaranteed duration: 2000~3000 hours at 105°C
- SMT process
- Low impedance
- RoHS compliant

Items	Characteristics									
Temperature Range	-55℃ ~ +105℃									
Rated Voltage Range	6.3V ~ 100V									
Capacitance Range	1 ~ 1500 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	80	100
	tg δ	0.30	0.26	0.22	0.16	0.13	0.10	0.08	0.08	0.07
Endurance	Under the condition of 105°C, with the rated operating voltage applied to the capacitors, and after returning to 20°C, the capacitors shall meet the following requirements: ΦD < 10 for 2000 hours; ΦD ≥ 10 for 3000 hours.									
	Capacitance Change	within ±30% of the initial value								
	Dissipation Factor	≤300% of initial rated value								
	Leakage Current	≤ initial ralted value								
High Temperature Storage	After being stored for 1000 hours without voltage application in a 105℃ environment and then recovered to 20℃, the capacitor shall meet the above endurance requirements.									
Low Temperature	U_R (V)	6.3	10	16	25	35	50	63	80	100
	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	2
	Z(-55℃)/Z(20℃)	8	5	4	3	3	3	3	3	3
Resistance to soldering heat	The capacitor shall be maintained on a hot plate at 250°C for 30 seconds. After removal and recovery at room temperature, it 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		

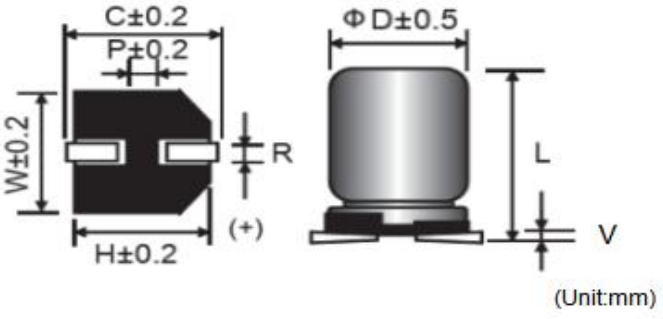
Coefficient of Frequency for Rated Ripple Current

Frequency (Hz)（Hz）	120≦ F <1K	1K≦ F <10K	10K≦ F <100K	100K≦ F
≦33	0.35	0.70	0.90	1.00
33~150	0.40	0.85	0.92	1.00
>150	0.60	0.85	0.95	1.00

Mark



Appearance & Dimension



Dimension	ΦD	L	W	H	C	R	P	Vmax
4x5.4	4	5.4±0.3	4.3	4.3	5.1	0.5~0.8	1.0	0.3
5x5.4	5	5.4±0.3	5.3	5.3	5.9	0.5~0.8	1.4	0.3
6.3x5.4	6.3	5.4±0.3	6.6	6.6	7.2	0.5~0.8	2.1	0.3
6.3x6.0	6.3	6.0±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
8x6.5	8	6.5±0.5	8.3	8.3	9.0	0.5~0.8	2.3	0.3
8x10	8	10.0±0.5	8.3	8.3	9.0	0.7~1.1	3.2	0.3
10×10	10	10.0±0.5	10.3	10.3	11.0	0.7~1.3	4.5	0.3

ED Characteristics Table

Rated Voltage (V.DC)	Capacitance (±20%) (μF)	Dimension (mm)		Electrical Characteristics			Minimum Packaging Quantity (PCS)
		ΦD	L	Rated Ripple Current (100KHz/105℃) (mA r.m.s)	tan δ (120Hz/20℃)	Impedance (100KHz) (20℃) (Ω)	
6.3	22	4	5.4	80	0.30	2.00	2000
	33	4	5.4	80	0.30	2.00	2000
	47	5	5.4	150	0.30	1.20	1000
	100	6.3	5.4	230	0.30	0.80	1000
	150	6.3	5.4	230	0.30	0.80	1000
	220	6.3	5.4	230	0.30	0.80	1000
	330	8	10	450	0.30	0.22	500
	470	8	10	450	0.30	0.22	500
	680	8	10	450	0.30	0.22	500
	1000	8	10	450	0.30	0.22	500
	1500	10	10	670	0.30	0.15	500
10	22	4	5.4	80	0.26	2.00	2000
	33	5	5.4	150	0.26	1.20	1000
	47	5	5.4	150	0.26	1.20	1000
	100	6.3	5.4	230	0.26	0.80	1000
	150	6.3	5.4	230	0.26	0.80	1000
	220	6.3	7.7	280	0.26	0.58	1000
	330	8	10	450	0.26	0.22	500
	470	8	10	450	0.26	0.22	500
	680	10	10	670	0.26	0.15	500
	1000	10	10	670	0.26	0.15	500
16	10	4	5.4	80	0.22	2.00	2000
	22	5	5.4	150	0.22	1.20	1000
	33	5	5.4	150	0.22	1.20	1000
	47	5	5.4	150	0.22	1.20	1000
	100	6.3	5.4	230	0.22	0.80	1000
	150	6.3	7.7	280	0.22	0.58	1000
	220	6.3	7.7	280	0.22	0.58	1000
	330	8	10	450	0.22	0.22	500
	470	8	10	450	0.22	0.22	500
	470	10	10	670	0.22	0.15	500
	680	10	10	670	0.22	0.15	500
25	10	4	5.4	80	0.16	2.00	2000
	22	5	5.4	150	0.16	1.20	1000
	33	6.3	5.4	230	0.16	0.80	1000
	47	6.3	5.4	230	0.16	0.80	1000
	100	6.3	7.7	280	0.16	0.58	1000
	150	8	10	450	0.16	0.22	500
	220	8	10	450	0.16	0.22	500
	330	8	10	450	0.16	0.22	500
	470	10	10	670	0.16	0.15	500
35	4.7	4	5.4	80	0.13	2.00	2000
	10	5	5.4	150	0.13	1.20	1000
	22	6.3	5.4	230	0.13	0.80	1000
	33	6.3	5.4	230	0.13	0.80	1000
	47	6.3	5.4	230	0.13	0.80	1000
	100	8	10	450	0.13	0.22	500
	150	8	10	450	0.13	0.22	500
	220	10	10	670	0.13	0.15	500

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Rated Voltage（V.DC)	Capacitance (±20%）(μF)	Dimension (mm)		Electrical Characteristics			Minimum Packaging Quantity（PCS）
		ΦD	L	Rated Ripple Current（100KHz/105℃)（mA r.m.s）	tan δ（120Hz/20℃)	Impedance（100KHz）（20℃) (Ω)	
50	1	4	5.4	60	0.10	9.00	2000
	2.2	4	5.4	60	0.10	9.00	2000
	3.3	4	5.4	60	0.10	9.00	2000
	4.7	5	5.4	85	0.10	5.00	1000
	10	6.3	5.4	165	0.10	2.20	1000
	22	6.3	5.4	165	0.10	2.20	1000
	33	6.3	7.7	185	0.10	1.40	1000
	47	6.3	7.7	185	0.10	1.40	1000
	68	8	10	369	0.10	0.68	500
	100	8	10	369	0.10	0.68	500
	100	10	10	553	0.10	0.48	500
	150	10	10	553	0.10	0.48	500
63	3.3	5	5.4	85	0.08	5.00	1000
	4.7	5	5.4	85	0.08	5.00	1000
	10	6.3	5.4	165	0.08	2.20	1000
	22	6.3	7.7	185	0.08	1.40	1000
	33	8	10	369	0.08	0.85	500
	47	8	10	369	0.08	0.85	500
	68	10	10	450	0.08	0.48	500
	100	10	10	553	0.08	0.48	500
80	3.3	5	5.4	50	0.08	5.30	1000
	4.7	6.3	5.4	60	0.08	4.80	1000
	22	8	10	130	0.08	1.88	500
	33	10	10	200	0.08	0.90	500
	47	10	10	200	0.08	0.90	500
	68	10	10	200	0.08	0.90	500
100	10	8	10	130	0.07	1.88	500
	22	10	10	200	0.07	0.90	500
	33	10	10	200	0.07	0.90	500
	47	10	10	200	0.07	0.90	500