

Features

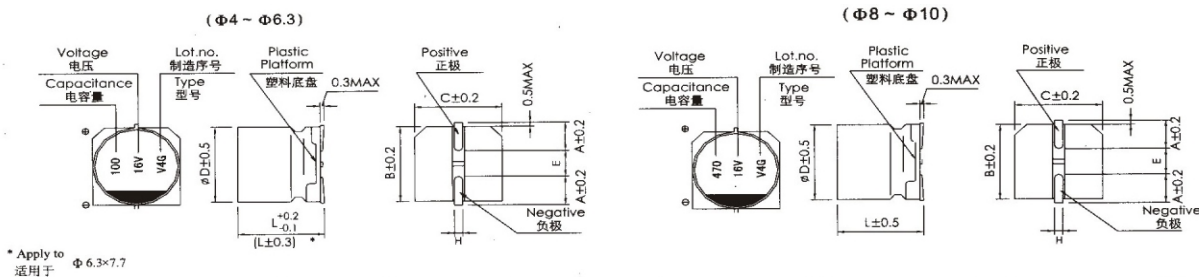
- Case diameter: $\varnothing 4\text{mm} - \varnothing 10\text{mm}$;
- Reflow soldering is available.
- Available for high density surface mounting.
- Operating over wide temperature range $(-40 \sim +105^\circ\text{C})$



Specifications

Item	Characteristics							
Operating temperature range	-40~+105°C							
Rated voltage range	4V~50V							
Nominal Capacitance Range	0.1-1000uF							
Nominal Capacitance Tderance	±20% (20°C, 120Hz)							
Leakage Cument	1 ≤ 0.01C _R V _R or 3(uA) Whichever is greater (After 2 minutes' application of rated voltage) C _R : Nominal Capacitance(uF) U _R : Rated voltages (V)							
Dissipation Factor(Max) 20°C, 120Hz	U _R (V)	4	6.3	10	16	25	35	50
	tg δ	0.35	0.28	0.24	0.20	0.16	0.14	0.12
Load Life	After 1000 hours' application of rated voltage at 105°C, the capacitor shall meet the following requirement.							
	Capacitance Change	Within ±20% of the initial value (≤16V: within ±25 of the inital value)						
	Dissipation Factor	Not more than 300% of the initial specified value						
	Leakage Cument	Not more than the initial specified value						
Shelf Life	After storage for 1000 hours +105°C, U _R to be applied for 30 minutes, the capacitors shall meet the requirement of load life above							
Low Temperature Stability Impedance Ratio(120Hz)	U _R (V)	4	6.3	10	16	25	35	50
	Z(-25°C) /Z(+20°C)	7	4	3	2	2	2	2
	Z(-40°C) /Z(+20°C)	15	8	6	4	4	3	3
Resistance to Soldering Heat	After reflow soldering according to Reflow Soldering Temperature Profile (see page 8) and restored at room temperature, they meet the following requirement.							
	Capacitance Change	Within ±10% of the initial value						
	Dissipation Factor	Not more than the initial specified value						
	Leakage Current	Not more than the initial specified value						

Dimensions



	4×5.4	5×5.4	6.3×5.4	6.3×7.7	8×10.5	10×10.5
A	1.8	2.1	2.4	2.4	2.9	3.2
B	4.3	5.3	6.6	6.6	8.3	10.3
C	4.3	5.3	6.6	6.6	8.3	10.3
E	1.0	1.3	2.2	2.2	3.1	4.5
L	5.4	5.4	5.4	7.7	10.5	10.5
H	0.5-0.8			0.8-1.1		

Nominal capacitance, rated voltage, rated ripple current and case size table

V uF	4		6.3		10		16		25		35		50	
	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA	D×L mm	I~ mA
0.1													4×5.4	0.7
0.22													4×5.4	1.6
0.33													4×5.4	2.5
0.47													4×5.4	3.5
1.0													4×5.4	4
2.2													4×5.4	11
3.3											4×5.4	13	4×5.4	13
4.7									4×5.4	13	4×5.4	14	5×5.4	16
10							4×5.4	18	5×5.4	20	5×5.4	21	6.3×5.4	24
22			4×5.4	22	5×5.4	25	5×5.4	37	6.3×5.4	36	6.3×5.4	38	6.3×7.7	51
33	4×5.4	18	5×5.4	27	5×5.4	30	6.3×5.4	40	6.3×5.4	44	6.3×5.4	42	6.3×7.7	60
47	4×5.4	23	5×5.4	33	6.3×5.4	41	6.3×5.4	48	6.3×5.4	48	6.3×7.7	49	6.3×7.7	63
100	5×5.4	42	6.3×5.4	50	6.3×5.4	53	6.3×5.4	60	6.3×7.7	91	8×10.5	155	8×10.5	155
150	6.3×5.4	61	6.3×5.4	55	6.3×5.4	62	6.3×7.7	95	8×10.5	140	8×10.5	155	10×10.5	300
220	6.3×5.4	68	6.3×7.7	105	6.3×7.7	105	6.3×7.7	105	8×10.5	175	10×10.5	300		
330	6.3×7.7	73	6.3×7.7	105	8×10.5	175	8×10.5	195	10×10.5	220				
470	6.3×7.7	105	8×10.5	170	8×10.5	210	8×10.5	310						
680	8×10.5	210	8×10.5	210	10×10.5	230	10×10.5	350						
1000	8×10.5	260	10×10.5	230										

Frequency coefficient of ripple current

Frequency	50Hz	120Hz	300Hz	1KHz	≥10KHz
Coefficient	0.70	1.00	1.17	1.36	1.50