

WG

Chip Type, Low Impedance

series



For SMD



Low Impedance

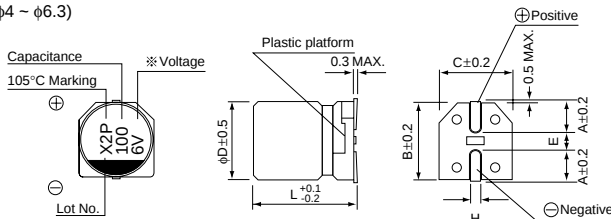
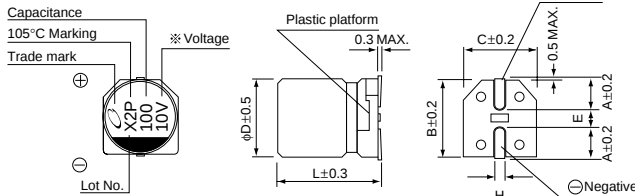
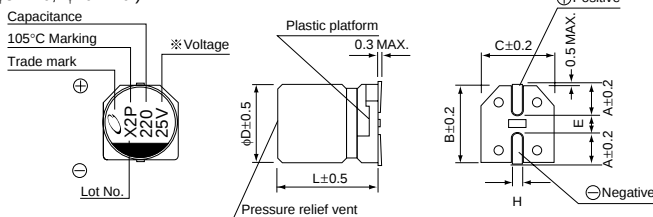


Anti-Solvent Feature

- Chip type, operating over wide temperature range of to $-55 \sim +105^{\circ}\text{C}$.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.
- Adapted to the RoHS directive (2002/95/EC).

**Specifications**

Item	Performance Characteristics	
Category Temperature Range	$-55 \sim +105^{\circ}\text{C}$	
Rated Voltage Range	6.3 ~ 50V	
Rated Capacitance Range	1 ~ 1500 μF	
Capacitance Tolerance	$\pm 20\%$ at 120Hz, 20°C	
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01CV or 3 (μA), whichever is greater.	
tan δ	Measurement frequency : 120Hz, Temperature : 20°C	
	Rated voltage (V)	6.3 10 16 25 35 50
	tan δ (MAX.)	0.26 0.19 0.16 0.14 0.12 0.12
Stability at Low Temperature	Measurement frequency : 120Hz	
	Rated voltage (V)	6.3 10 16 25 35 50
	Impedance ratio	Z- 25°C / Z- 20°C 2 2 2 2 2 2
	ZT / Z20 (MAX.)	Z- 55°C / Z- 20°C 4 4 3 3 3 3
Endurance	After 1000 hours' application of rated voltage at 105°C , capacitors meet the characteristic requirements listed at right.	
	Capacitance change	Within $\pm 20\%$ of initial value
	tan δ	200% or less of initial specified value
Shelf Life	After leaving capacitors under no load at 105°C for 1000 hours, they meet the specified value for endurance characteristics listed above.	
	Capacitance change	Within $\pm 10\%$ of initial value
	tan δ	Initial specified value or less
Resistance to soldering heat	The capacitors shall be kept on the hot plate maintained at 250°C for 30 seconds. After removing from the hot plate and restored at room temperature, they meet the characteristic requirements listed at right.	
	Capacitance change	Within $\pm 10\%$ of initial value
	tan δ	Initial specified value or less
Marking	Black print on the case top.	

Chip TypeType numbering system (Example : 10V 100 μF)($\phi 4 \sim \phi 6.3$)($\phi 8 \times 6.2$)($\phi 8 \times 10, \phi 10 \times 10$)

※ Voltage mark for 6.3V is 「6V」.

1 2 3 4 5 6 7 8 9 10 11 12 13 14
U W G 1 A 1 0 1 M C L 1 G S

Taping code

ϕD	code
4 ~ 6.3	GB
8 · 10	GS

Configuration

ϕD	code
4 ~ 6.3	CL
8 (6.2L)	CL
8 (10L) · 10	NL

Capacitance tolerance ($\pm 20\%$)Rated Capacitance (100 μF)

Rated voltage (10V)

Series name

Type

$\phi D \times L$	4 × 5.4	5 × 5.4	6.3 × 5.4	8 × 6.2	8 × 10	10 × 10
A	1.8	2.1	2.4	3.3	2.9	3.2
B	4.3	5.3	6.6	8.3	8.3	10.3
C	4.3	5.3	6.6	8.3	8.3	10.3
E	1.0	1.3	2.2	2.3	3.1	4.5
L	5.4	5.4	5.4	6.2	10	10
H	0.5 ~ 0.8	0.5 ~ 0.8	0.5 ~ 0.8	0.5 ~ 0.8	0.8 ~ 1.1	0.8 ~ 1.1

(mm)

■ Dimensions

φD×L (mm)

Cap. (μF)	V Code	6.3			10			16		
		0J			1A			1C		
10	100							4×5.4	3.0	60
22	220	4×5.4	3.0	60				5×5.4	1.8	95
33	330				5×5.4	1.8	95			
47	470	5×5.4	1.8	95				6.3×5.4	1.0	140
68	680	6.3×5.4	1.0	140				8×6.2	0.4	230
100	101	6.3×5.4	1.0	140	8×6.2	0.4	230	8×6.2	0.4	230
150	151				8×6.2	0.4	230			
220	221	8×6.2	0.4	230	8×10	0.3	450	10×10	0.15	670
330	331	8×10	0.3	450				10×10	0.15	670
470	471				10×10	0.15	670	10×10	0.15	670
680	681							10×10	0.15	670
1000	102	10×10	0.15	670	10×10	0.15	670			
1500	152	10×10	0.15	670						

Cap. (μF)	V Code	25			35			50		
		1E			1V			1H		
1	010				4×5.4	3.0	60	4×5.4	5.0	30
2.2	2R2				4×5.4	3.0	60	4×5.4	5.0	30
3.3	3R3				4×5.4	3.0	60	4×5.4	5.0	30
4.7	4R7				4×5.4	3.0	60	5×5.4	3.0	50
6.8	6R8	4×5.4	3.0	60	5×5.4	1.8	95			
10	100				5×5.4	1.8	95	6.3×5.4	2.0	70
22	220	6.3×5.4	1.0	140	6.3×5.4	1.0	140	8×6.2	0.7	120
33	330	6.3×5.4	1.0	140	8×6.2	0.4	230	8×10	0.6	300
47	470	8×6.2	0.4	230	8×6.2	0.4	230	10×10	0.3	500
68	680	8×10	0.3	450						
100	101	8×10	0.3	450	10×10	0.15	670	10×10	0.3	500
220	221	10×10	0.15	670	10×10	0.15	670	10×10	0.3	500
330	331	10×10	0.15	670	10×10	0.15	670	Case size	Impedance	Rated ripple
470	471	10×10	0.15	670						

Max. Impedance : (Ω) at 20°C 100kHz
 Rated Ripple (mA rms) at 105°C 100kHz

● Frequency coefficient of rated ripple current

Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz~
Coefficient	0.35	0.50	0.64	0.83	1.00

- Taping specifications are given in page 24.
- Recommended land size, soldering by reflow are given in page 25
- Please select UX(p.66), UJ(p.68) series if high C/V products are required.
- Please refer to page 3 for the minimum order quantity.