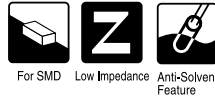


**UD** series Chip Type, Low Impedance



- Chip type, low impedance temperature range up to +105°C.
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape.

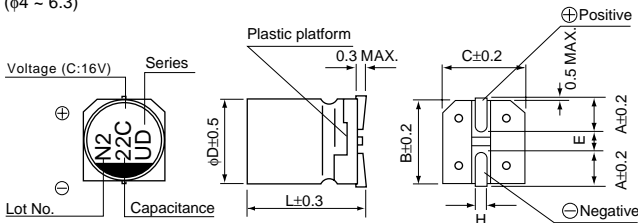


## Specifications

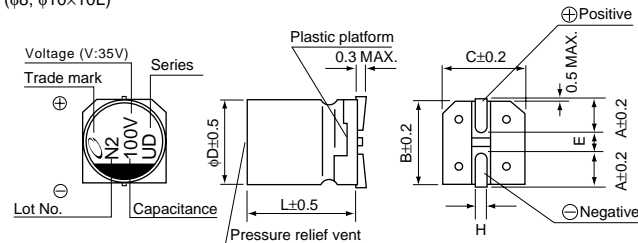
Item	Performance Characteristics								
Category Temperature Range	-55 ~ +105°C								
Rated Voltage Range	6.3 ~ 50V								
Rated Capacitance Range	1 ~ 1500μF								
Capacitance Tolerance	±20% at 120Hz, 20°C								
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.01 CV or 3 (μA), whichever is greater.								
tan δ	Measurement frequency : 120Hz, Temperature : 20°C							( ) is φ8 over	
	Rated voltage (V)	6.3	10	16	25	35	50		
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	3	2	2	2	2		2
Endurance	After 5000 hours' (2000 hours for φD ≤ 6.3) application of rated voltage at 105°C, capacitors meet the characteristic requirements listed at right.								
	Capacitance change	Within ±30% of initial 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.								
	tan δ	200% or less of initial specified value							
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.								
	Leakage current	Initial specified value or less							
Marking	Black print on the case top.								

## Chip Type

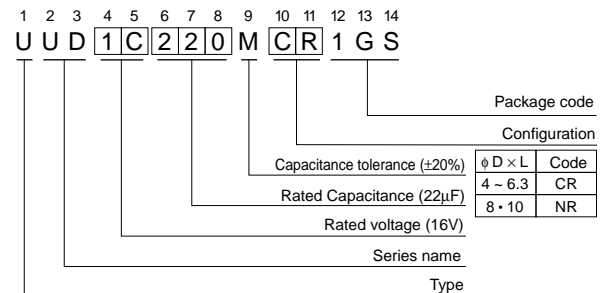
(φ4 ~ 6.3)



(φ8, φ10×10L)



## Type numbering system (Example : 16V 22μF)



- The lead-free product is also available upon request. In this case, □ will be put at 11th digit of type numbering system.

φD × L	4 × 5.8	5 × 5.8	6.3 × 5.8	6.3 × 7.7	8 × 10	10 × 10
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	5.8	5.8	5.8	7.7	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

## Voltage

V	6.3	10	16	25	35	50
Code	j	A	C	E	V	H

● Dimension table in next page.



## ■ Dimensions

φD×L (mm)

Cap. (μF)	V	6.3			10			16			25			35			50			
		Code	0J			1A			1C			1E			1V			1H		
1	010																4×5.8	5.00	30	
2.2	2R2																4×5.8	5.00	30	
3.3	3R3																4×5.8	5.00	30	
4.7	4R7													4×5.8	1.80	80	5×5.8	1.52	85	
10	100										4×5.8	1.80	80	5×5.8	0.76	150	6.3×5.8	0.88	165	
15	150							4×5.8	1.80	80	5×5.8	0.76	150	5×5.8	0.76	150	6.3×5.8	0.88	165	
22	220				4×5.8	1.80	80	5×5.8	0.76	150	5×5.8	0.76	150	5×5.8	0.76	150	6.3×5.8	0.88	165	
27	270	4×5.8	1.80	80	5×5.8	0.76	150	5×5.8	0.76	150	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.68	185	
33	330	5×5.8	0.76	150	5×5.8	0.76	150	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.68	185	
47	470	5×5.8	0.76	150	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.68	185	
56	560	5×5.8	0.76	150	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.34	300	
68	680	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.34	300	
100	101	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.17	450	8×10	0.34	300	
150	151	6.3×5.8	0.44	230	6.3×5.8	0.44	230	6.3×7.7	0.34	280	8×10	0.17	450	8×10	0.17	450	10×10	0.18	670	
220	221	6.3×5.8	0.44	230	6.3×7.7	0.34	280	6.3×7.7	0.34	280	8×10	0.17	450	8×10	0.17	450	10×10	0.18	670	
330	331	6.3×7.7	0.34	280	8×10	0.17	450	8×10	0.17	450	8×10	0.17	450	10×10	0.09	670				
470	471	8×10	0.17	450	8×10	0.17	450	8×10	0.17	450	10×10	0.09	670							
680	681	8×10	0.17	450	10×10	0.09	670	10×10	0.09	670										
1000	102	8×10	0.17	450	10×10	0.09	670													
1500	152	10×10	0.09	670														Case size	Impedance	Rated ripple

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 22.
- Recommended land size are given in page 23
- Please refer to page 3 for the minimum order quantity.