

UUNChip Type, Bi-Polarized,
Higher Capacitance Range

For SMD



Bi-polarized

Anti-Solvent
Feature

- Chip Type, higher capacitance in larger case sizes ($\phi 12.5$, $\phi 16$, $\phi 18$)
- Designed for surface mounting on high density PC board.
- Bi-polarized series for operations over wide temperature range of -55 to $+105^{\circ}\text{C}$.
- Applicable to automatic mounting machine fed with carrier tape and tray.
- Compliant to the RoHS directive (2011/65/EU).

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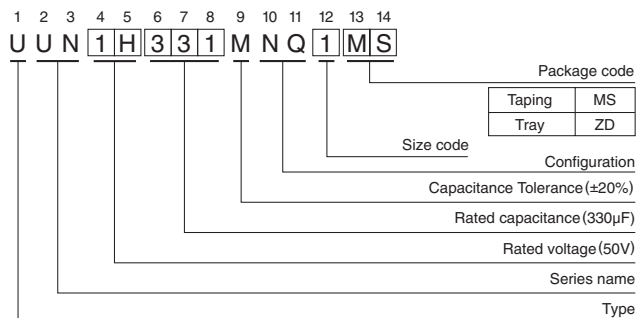
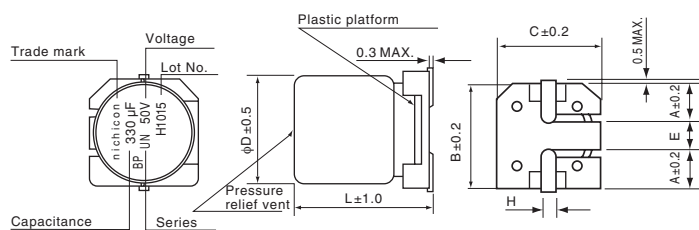
Bi-polarized

UUJ

Specifications

Item	Performance Characteristics									
Category Temperature Range	-55 to +105°C									
Rated Voltage Range	6.3 to 100V									
Rated Capacitance Range	22 to 3300μF									
Capacitance Tolerance	±20% at 120Hz, 20°C									
Leakage Current	After 1 minute's application of rated voltage at 20°C, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.									
Tangent of loss angle (tan δ)	Measurement frequency : 120Hz at 20°C									
	Rated voltage (V)	6.3	10	16	25	35	50	63	100	
	tan δ (MAX.)	0.26	0.22	0.18	0.16	0.14	0.12	0.10	0.09	
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.									
Stability at Low Temperature	Measurement frequency: 120Hz									
	Rated voltage (V)		6.3	10	16	25	35	50	63	100
	Impedance ratio	Z-25°C / Z+20°C	5	4	3	2	2	2	2	2
	ZT / Z20 (MAX.)	Z-40°C / Z+20°C	10	8	6	4	3	3	3	3
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C with the polarity inverted every 250 hours.					Capacitance change		Within ±20% of the initial capacitance value		
						tan δ		200% or less than the initial specified value		
						Leakage current		Less than or equal to the initial specified value		
Shelf Life	After storing the capacitors under no load at 105°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.									
Marking	Black print on the case top.									

Chip Type

Type numbering system (Example : 50V 330 μF)

※ The vibration structure-resistant product is also available upon request, please ask for details.

(mm)

ϕD	12.5×13.5	12.5×16	16×16.5	16×21.5	18×16.5	18×21.5
A	4.8	4.8	5.4	5.4	6.4	6.4
B	13.6	13.6	17.1	17.1	19.1	19.1
C	13.6	13.6	17.1	17.1	19.1	19.1
E	4.0	4.0	6.3	6.3	6.3	6.3
L	13.5	16.0	16.5	21.5	16.5	21.5
H	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4	1.0 to 1.4

● Dimension table in next page.

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■ Dimensions

(μF) Cap.	V Code	6.3	10	16	25	35	50	63	100
		0J	1A	1C	1E	1V	1H	1J	2A
22	220								12.5 × 13.5 100
33	330								12.5 × 16 150
47	470						12.5 × 13.5 130	12.5 × 13.5 140	16 × 16.5 180
100	101					12.5 × 13.5 180	12.5 × 16 230	16 × 16.5 270	18 × 21.5 310
220	221				12.5 × 13.5 270	16 × 16.5 330	18 × 16.5 400	18 × 21.5 440	
330	331			12.5 × 13.5 310	16 × 16.5 370	18 × 16.5 450	▲ 16 × 21.5 400	18 × 21.5 540	
470	471	12.5 × 13.5 270	12.5 × 13.5 340	16 × 16.5 420	16 × 16.5 490	18 × 21.5 590	▲ 16 × 21.5 450	▲ 18 × 21.5 590	
1000	102	12.5 × 16 500	16 × 16.5 600	18 × 16.5 670	18 × 21.5 780		▲ 18 × 21.5 640		
2200	222	18 × 16.5 740	18 × 21.5 830						
		▲ 16 × 21.5 740							
3300	332	18 × 21.5 920							Case size φ D × L (mm)
									Rated ripple

※ In this case, [6] will be put at 12th digit of type numbering system, "▲"

Rated ripple current (mA rms) at 105°C 120Hz

● Frequency coefficient of rated ripple current

Cap.(μF)	Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
22 to 47		0.75	1.00	1.35	1.57	2.00
100 to 470		0.80	1.00	1.23	1.34	1.50
1000 to 3300		0.85	1.00	1.10	1.13	1.15

- Taping specifications are given in page 23.
- Recommended land size, soldering by reflow are given in page 18, 19.
- Please refer to page 3 for the minimum order quantity.