



Chip Type, High Reliability, Higher Capacitance Range



For SMD



Long Life



Anti-Solvent Feature

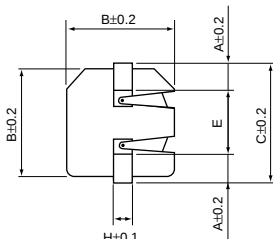
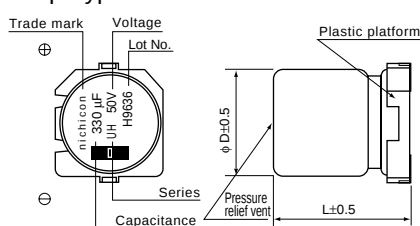
- Chip Type, higher capacitance in larger case sizes (φ12.5, φ16, φ18, φ20)
- Designed for surface mounting on high density PC board.
- Applicable to automatic mounting machine using carrier tape and tray.



Specifications

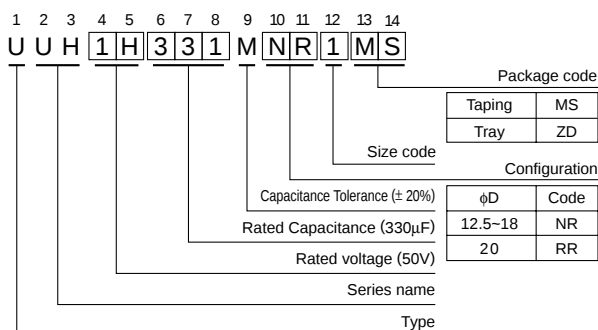
Item	Performance Characteristics					
Category Temperature Range	-55 ~ +125°C					
Rated Voltage Range	10 ~ 50V					
Rated Capacitance Range	100 ~ 3300μF					
Capacitance Tolerance	±20% at 120Hz, 20°C					
Leakage Current	After 1 minutes' application of rated voltage, leakage current is not more than 0.03CV or 4 (μA), whichever is greater.					
tan δ	Rated voltage (V)	10	16	25	35	50
	tan δ (MAX)	0.22	0.18	0.16	0.14	0.12
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.					
Stability at Low Temperature	Rated voltage (V)	10	16	25	35	50
	Impedance ratio Z-25°C / Z+20°C	4	3	2	2	2
	ZT / Z20 (MAX.)	8	6	4	3	3
Endurance	After 5000 hours' application of rated voltage at 125°C, capacitors meet the characteristic requirements listed at right.					120Hz
						Capacitance change
						tan δ
Shelf Life	After leaving capacitors under no load at 125°C for 1000 hours, they meet the specified value for endurance characteristics listed above.					Leakage current
						Within ±30% of initial value
						300% or less of initial specified value
Marking	Black print on the case top.					

Chip Type



	φD	12.5	16	18	20
A	4.0	4.5	5.0	5.0	5.0
B	13.6	17.1	19.1	21.1	21.1
C	16.0	19.5	21.5	23.5	23.5
E	8.0	10.5	11.5	13.5	13.5
H	2.5	3.75	3.75	3.75	3.75

Type numbering system (Example : 50V 330μF)



Dimensions

φD × L (mm)

(μF) Cap.	V Code	10		16		25		35		50	
		1A		1C		1E		1V		1H	
100	101									12.5 × 13.5	170
220	221							12.5 × 13.5	200	16 × 16.5	250
330	331			12.5 × 13.5	210	12.5 × 13.5	230	16 × 16.5	280	16 × 21.5	340
470	471	12.5 × 13.5	230	12.5 × 13.5	250	16 × 16.5	310	18 × 16.5	380	▲ 18 × 16.5	340
1000	102	12.5 × 16	350	16 × 16.5	440	18 × 21.5	540	▲ 16 × 21.5	380	18 × 21.5	430
2200	222	▲ 16 × 21.5	620	18 × 21.5	710	▲ 20 × 16.5	540	20 × 21.5	610		
3300	332	18 × 21.5	770								
										Case size	Rated Ripple

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

Rated Ripple (mA rms) at 125°C 120Hz

Frequency coefficient of rated ripple current

Cap.(μF)	Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz~
100 ~ 470		0.80	1.00	1.23	1.34	1.50
1000 ~ 3300		0.85	1.00	1.10	1.13	1.15

- 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.