

Capacitors Made Easy

Capacitance value conversion

0.000001 μ F	=	0.001nF	=	1pF
0.00001 μ F	=	0.01nF	=	10pF
0.0001 μ F	=	0.1nF	=	100pF
0.001 μ F	=	1nF	=	1000pF
0.01 μ F	=	10nF	=	10000pF
0.1 μ F	=	100nF	=	100000pF
1 μ F	=	1000nF	=	1000000pF
10 μ F	=	10000nF	=	10000000pF
100 μ F	=	100000nF	=	100000000pF

Capacitor Identification

The unit of capacitance is expressed in Farads.

But as values are typically very small multipliers are generally used. i.e.

Pico (p)	=	10^{-12}
Nano (n)	=	10^{-9}
Micro (μ)	=	10^{-6}

Values may be written on the capacitor in various ways

A) As the Value

$$3n3 = 3.3nF = 3.300pF$$

B) Using the multiplier as the decimal point

$$n22 = 0.22nF = 220pF$$

C) With no multiplier, usually = pico

$$10 = 10pF$$

D) With 3 figures - 1st two as significant number 3rd as multiplier

$$103 = 10 \times 10^3 = 10.000pF = 10nF = 0.01\mu F$$

E) On Electrolytic and Tantalum capacitors in units of μ F with the max working voltage

$$47\mu 16V \quad \text{or} \quad 47/16$$