Capacitor   C
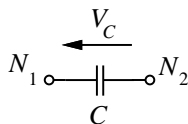

Figure 1: C — Capacitor Element.

`SPICE` *Form:*

C*name* n_1 n_2 *ModelName Capacitor Value* [`IC`=V_C] [`L`=Length] [`W`=Width]

n_1	is the positive element node
n_2	is the negative element node
ModelName	is the optional model name
Capacitor Value	is the capacitance. (Units: Farads; Required)
`L`	length of the integrated capacitor. (Units: m; Required; Symbol L)
`W`	is the width of the integrated capacitor. (Units: m; Optional, with the default width `DEFW` specified in the device model; Symbol L)
`IC`	is the optional initial condition specification. Using `IC`=V_C is used with the *UIC* option on the *.TRAN* line when a transient analysis is desired with initial voltage V_C across the capacitor rather than the quiescent operating point. Specification of the transient initial condition using the `.IC` is preferred and is more convenient.

Model Parameters:

Name	Description	Units	Default
C	Capacitor Value	farads	-
intg	Internal conductance value	siemens	-
timed	Flag: if true then calculate in the time domain	-	-

Example:
```
C  1  3 C1  5pF
```

Notes:

The actual element is the `cap` TRANSIM element. See TRANSIM element `cap` for full documentation.

Credits:

Name	Affiliation	Date	Logo
Carlos E. Christofferson	NC State University	Sept 2000	**NC STATE UNIVERSITY**