

Ulteriori Esercizi da svolgere per studenti – UD9 Reti sequenziali

Es.

Dimensionare un monostabile di 10 μs usando l'integrato 74hc123 in figura.

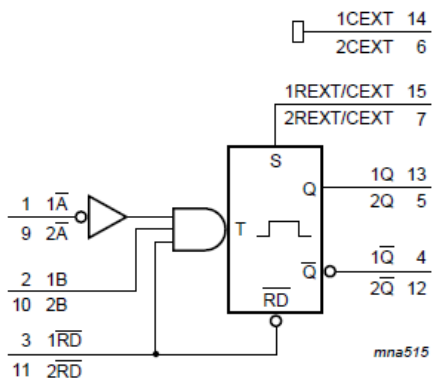
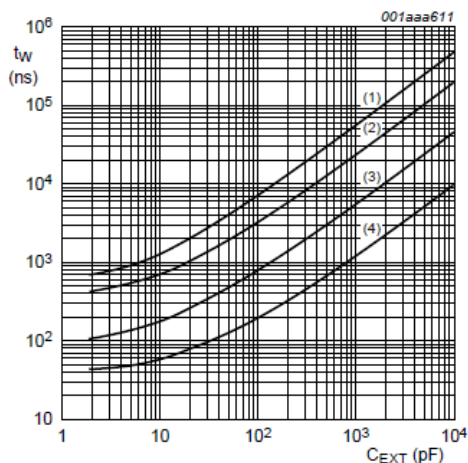


Fig 2. Logic symbol



$V_{CC} = 5.0 \text{ V}$; $T_{amb} = 25 \text{ }^\circ\text{C}$.

- (1) $R_{EXT} = 100 \text{ k}\Omega$
- (2) $R_{EXT} = 50 \text{ k}\Omega$
- (3) $R_{EXT} = 10 \text{ k}\Omega$
- (4) $R_{EXT} = 2 \text{ k}\Omega$

Fig 7. Typical output pulse width as a function of the external capacitor value

Table 3. Function table

Input			Output	
nRD	nA	nB	nQ	nQ
L	X	X	L	H
X	H	X	L	H
X	X	L	L	H
H	L	\uparrow		
H	\downarrow	H		
\uparrow	L	H		

[1] H = HIGH voltage level; L = LOW voltage level; X = don't care; \uparrow = LOW-to-HIGH transition; \downarrow = HIGH-to-LOW transition;

= one HIGH level output pulse; = one LOW level output pulse.

[Ris.: $R_{EXT} = 100 \text{ k}\Omega$, $C_{EXT} = 120 \text{ pF}$ oppure $R_{EXT} = 50 \text{ k}\Omega$, $C_{EXT} = 330 \text{ pF}$]

- Indicare la connessione necessaria per rendere il dispositivo attivo su fronte di salita

[Ris.: nRD = H, nA = L, ingresso di trigger su nB]