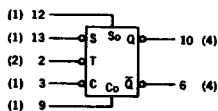


J-K FLIP-FLOPS

PLASTIC mW MRTL MC700P/800P series

MC722P • MC822P

J-K flip-flop with direct clear and direct set inputs in addition to the clocked inputs.



NUMBER IN PARENTHESES
INDICATES LOADING FACTOR

$f_{\text{req}} = 1.0 \text{ MHz}$
 $P_b = 24 \text{ mW}$ (Only Clock Input High)
 20 mW (Inputs Low)

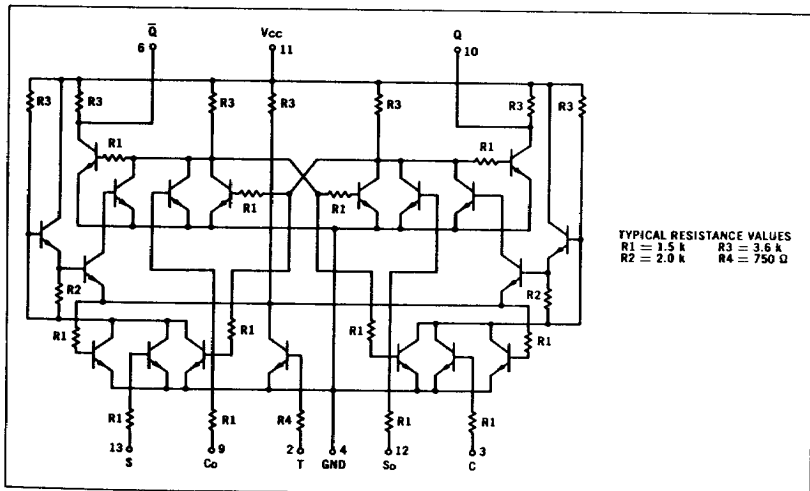
DIRECT INPUT OPERATION ①

S_0	C_0	Q	\bar{Q}
0	0	③	③
1	0	1	0
0	1	0	1
1	1	0	0

CLOCKED INPUT OPERATION ②

t_n		t_{n+1}	
S	C	Q	\bar{Q}
1	1	Q_n	\bar{Q}_n
1	0	1	0
0	1	0	1
0	0	\bar{Q}_n	Q_n

1. Clock (T) to remain unchanged.
2. The output state will not change when the input state goes from $S_0 = C_0$ to $S_0 = C_0 = 0$. The output state cannot be predetermined in the case where the input goes from $S_0 = C_0 = 1$ to $S_0 = C_0 = 0$.
3. Direct inputs (S_0 and C_0) must be low.
 0 = low state
 1 = high state
 t_n = time period prior to negative transition of clock pulse
 t_{n+1} = time period subsequent to negative transition of clock pulse
 Q_n = state of Q output in time period t_n



TYPICAL RESISTANCE VALUES
 $R_1 = 1.5 \text{ k}$ $R_3 = 3.6 \text{ k}$
 $R_2 = 2.0 \text{ k}$ $R_4 = 750 \Omega$