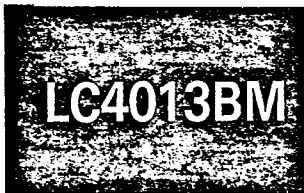


T-46-07-08



3034A

CMOS Standard Logic LC4000B Series

Dual D-Type Flip-Flop

©1347B

The LC4013BM is an IC that consists of two independent D-type flip-flops (EIA/JEDEC requirements-met IC product) having such features as wide operating voltage range, high noise margin, low power dissipation. The use of miniflat package permits sets to be small-sized.

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$, $V_{SS}=0\text{V}$

Parameter	Symbol	Value	unit
Maximum Supply Voltage	V_{DD} max	$V_{SS}-0.5$ to $V_{SS}+20$	V
Input Voltage	V_{IN} max	$V_{SS}-0.5$ to $V_{DD}+0.5$	V
Output Voltage	V_{OUT} max	$V_{SS}-0.5$ to $V_{DD}+0.5$	V
Input Current	I_{IN}	± 10	mA
Allowable Power Dissipation	P_d max	$T_a \leq 85^\circ\text{C}$	150 mW
Operating Temperature	T_{opg}	-40 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Lead Temperature Time	T_{sol}	$t=10\text{sec}$	260 $^\circ\text{C}$

Allowable Operating Conditions/ $T_a=-40$ to $+85^\circ\text{C}$, $V_{SS}=0\text{V}$

Parameter	Symbol	min	typ	max	unit
Supply Voltage	V_{DD}	3		18	V

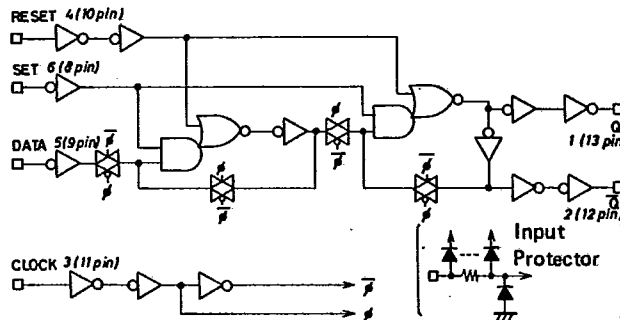
(continued on next page)

Truth Table

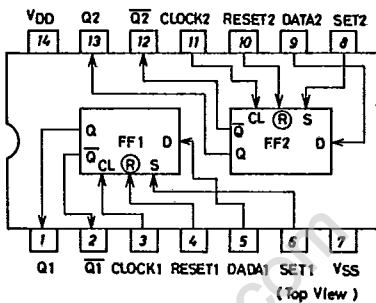
INPUTS				OUTPUTS	
CL Δ	D	S	\textcircled{R}	Q_{n+1}	\bar{Q}_{n+1}
★	★	H	L	H	L
★	★	L	H	L	H
★	★	H	H	L	H
\bar{f}	L	L	L	L	H
\bar{f}	H	L	L	H	L
\bar{f}	★	L	L	Q_n	\bar{Q}_n

- ★ : Don't care
- Δ : Level Change
- : No Change

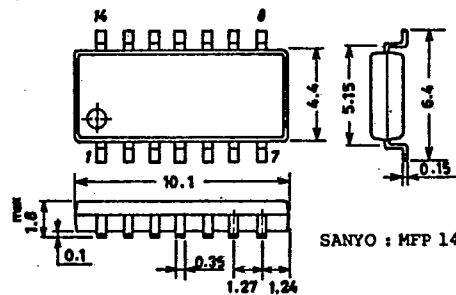
Equivalent Circuit (1/2 LC4013BM)



Pin Assignment and Block Diagram



Case Outline 3034A-M14IC (unit:mm)



For details, refer to the description of the LC4013B.