

DM74AS1034A Hex Non-Inverting Driver

General Description

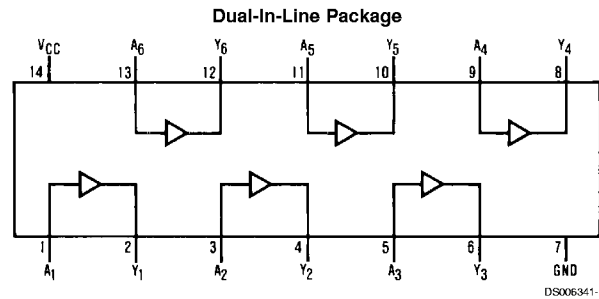
These devices contain six independent drivers, each of which performs the logic identity function. The 'AS1034A is a driver version of the 'AS34. Each driver has increased output drive capability to allow the driving of high capacitive loads.

- Switching specifications guaranteed over full temperature and V_{CC} range
- Advanced oxide-isolated, ion-implanted Schottky TTL process

Features

- Switching specifications at 50 pF

Connection Diagram



Order Number DM74AS1034AM or DM74AS1034AN
See Package Number M14A or N14A

Function Table

A = Y

Input A	Output Y
L	L
H	H

L = Low Logic Level
H = High Logic Level

Absolute Maximum Ratings (Note 1)

Supply Voltage	7V
Input Voltage	7V
Operating Free Air Temperature Range	0°C to +70°C

Storage Temperature Range -65°C to +150°C

Typical θ_{JA}	
N Package	76.0°C/W
M Package	106.0°C/W

Recommended Operating Conditions

Symbol	Parameter	Min	Nom	Max	Units
V _{CC}	Supply Voltage	4.5	5	5.5	V
V _{IH}	High Level Input Voltage	2			V
V _{IL}	Low Level Input Voltage			0.8	V
I _{OH}	High Level Output Current			-48	mA
I _{OL}	Low Level Output Current			48	mA
T _A	Free Air Operating Temperature	0		70	°C

Note 1: The "Absolute Maximum Ratings" are those values beyond which the safety of the device cannot be guaranteed. The device should not be operated at these limits. The parametric values defined in the "Electrical Characteristics" table are not guaranteed at the absolute maximum ratings. The "Recommended Operating Conditions" table will define the conditions for actual device operation.

Electrical Characteristics

over recommended operating free air temperature range. All typical values are measured at V_{CC} = 5V, T_A = 25°C.

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _{IK}	Input Clamp Voltage	V _{CC} = 4.5V, I _I = -18 mA			-1.2	V
V _{OH}	High Level Output Voltage	I _{OH} = -2 mA, V _{CC} = 4.5V to 5.5V	V _{CC} - 2			V
		I _{OH} = -3 mA, V _{CC} = 4.5V	2.4	3.2		V
		I _{OH} = Max, V _{CC} = 4.5V	2			
V _{OL}	Low Level Output Voltage	V _{CC} = 4.5V I _{OL} = Max		0.35	0.5	V
I _I	Input Current @ Max Input Voltage	V _{CC} = 5.5V, V _{IH} = 7V			0.1	mA
I _{IH}	High Level Input Current	V _{CC} = 5.5V, V _{IH} = 2.7V			20	μA
I _{IL}	Low Level Input Current	V _{CC} = 5.5V, V _{IL} = 0.4V			-0.5	mA
I _O	Output Drive Current	V _{CC} = 5.5V, V _O = 2.25V	-50	-135	-200	mA
I _{CC}	Supply Current	V _{CC} = 5.5V	Outputs High	9	15	mA
			Outputs Low	21	35	mA

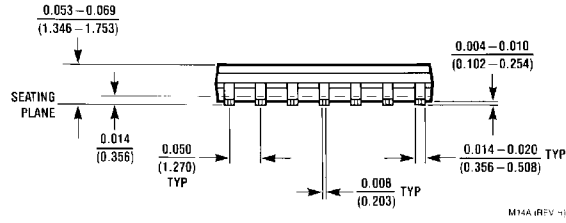
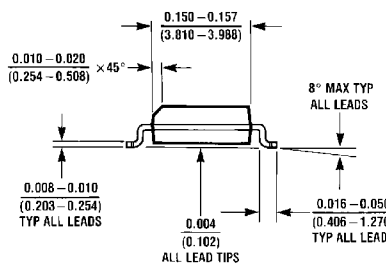
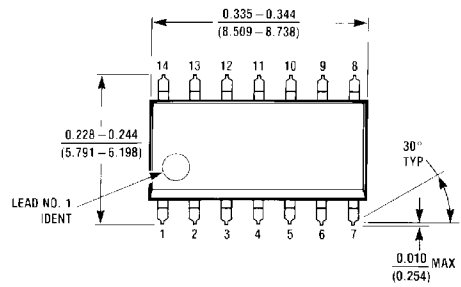
Switching Characteristics

over recommended operating free air temperature range (Note 2)

Symbol	Parameter	Conditions	Min	Max	Units
t _{PLH}	Propagation Delay Time Low to High Level Output	V _{CC} = 4.5V to 5.5V R _L = 500Ω	1	6	ns
t _{PHL}	Propagation Delay Time High to Low Level Output	C _L = 50 pF	1	6	ns

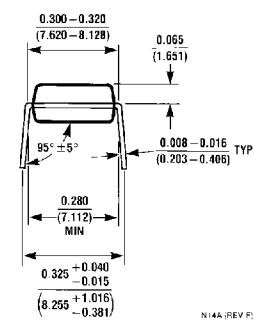
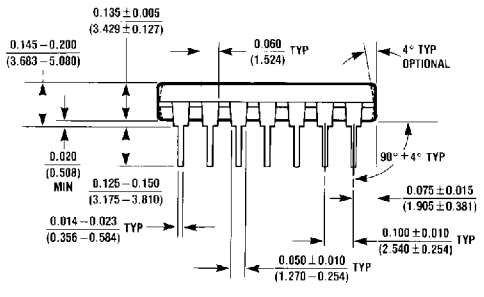
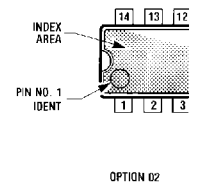
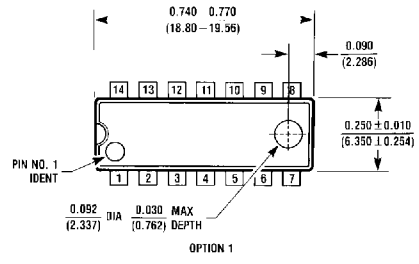
Note 2: See Section 1 for test waveforms and output load.

Physical Dimensions inches (millimeters) unless otherwise noted



M14A (REV. 1)

S.O. Package (M)
Order Number DM74AS1034AM
Package Number M14A



N14A (REV. 1)

Molded Dual-In-Line Package (N)
Order Number DM74AS1034AN
Package Number N14A