

## Quad 2-Input and Gate

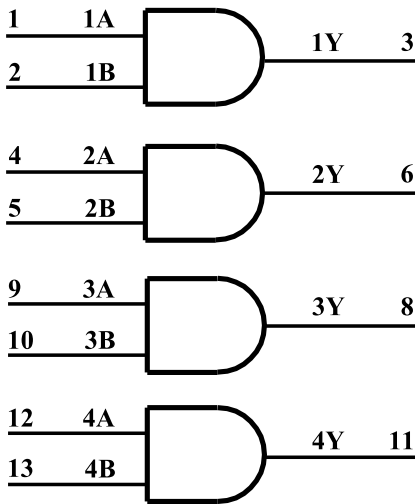
### Description

The 74HC08 provides provides four independent 2-input AND gates with standard push-pull outputs. The device is designed for operation with a power supply range of 2.0V to 6.0V.

The gates perform the Boolean function:

$$Y = A \bullet B \text{ or } Y = A + B$$

### Logic Diagram



### Features

- Wide Supply Voltage Range from 2.0V to 6.0V
- Sinks or Sources 4mA at V<sub>CC</sub> = 4.5V
- CMOS Low Power Consumption
- Schmitt Trigger Action at All Inputs
- ESD Protection Exceeds JESD-22
- Range of Package Options SOP-14L
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. “Green” Device (Note 3)

### Applications

- General Purpose Logic
- Wide array of products such as:
  - PCs, Networking, Notebooks, Netbooks
  - Computer Peripherals, Hard Drives, CD/DVD ROM
  - TV, DVD, DVR, Set Top Box



SOP-14L

### Function Table

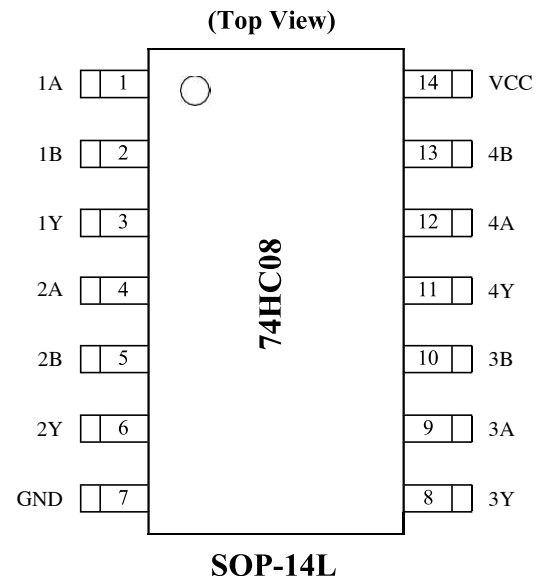
Inputs		Output
A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

Part Number	Package
74HC08S14	SOP-14L

### Pin Descriptions

Pin Number	Pin Name	Function
1	1A	Data Input
2	1B	Data Input
3	1Y	Data Output
4	2A	Data Input
5	2B	Data Input
6	2Y	Data Output
7	GND	Ground
8	3Y	Data Output
9	3A	Data Input
10	3B	Data Input
11	4Y	Data Output
12	4A	Data Input
13	4B	Data Input
14	V <sub>CC</sub>	Supply Voltage

### Pin Assignments



## Ordering Information

Part Number	Voltage Range	Features	Operating Temperature	Package Type	Top Mark	SPQ
74HC08S14	2.0V ~ 6.0V	<ul style="list-style-type: none"> <li>• Quad AND Gates</li> <li>• Sinks or Sources 4mA @V<sub>CC</sub>=4.5V</li> <li>• CMOS Low Power</li> <li>• I<sub>CC</sub>: 50mA</li> </ul>	-40°C to 85°C	SOP-14L	74HC08 <u>YY</u> <u>WW</u> <u>XX</u>	2500PCS/Reel

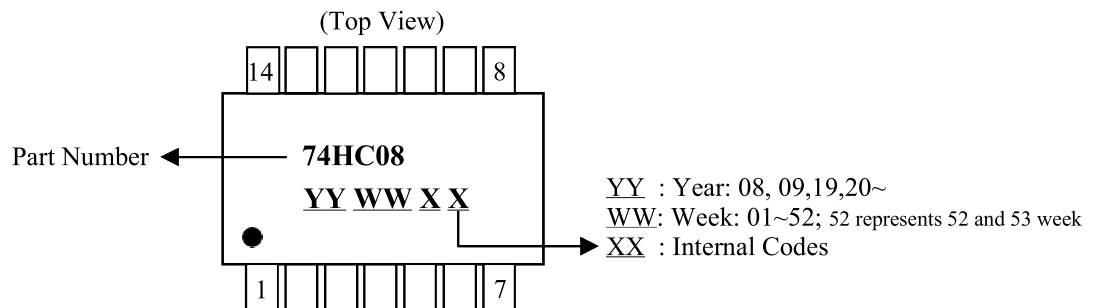
### Note:

- 74HC08 devices are Pb-free and RoHS compliant.
- The surface prints of our semiconductor devices are subject to change during the production process and do not involve changes in electrical parameters, and we will not separately state the notice.
- If you have any other custom purchase needs, please contact our sales department.



## Marking Information

- SOP-14L



### ESD SENSITIVITY CAUTION

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.



Product Folder



Order Now



Technical Documents



Tools & Software



Support & Community

### Note:

- The information described herein is subject to change without notice.
- ForDevices Inc. is not responsible for any problems caused by circuits or diagrams described herein whose related industrial properties, patents, or other rights belong to third parties. The application circuit examples explain typical applications of the products, and do not guarantee the success of any specific mass-production design.
- Use of the information described herein for other purposes and/or reproduction or copying without the express permission of ForDevices Inc. is strictly prohibited.
- The products described herein cannot be used as part of any device or equipment affecting the human body, such as exercise equipment, medical equipment, security systems, gas equipment, or any apparatus installed in airplanes and other vehicles, without prior written permission of ForDevices Inc.
- Although ForDevices Inc. exerts the greatest possible effort to ensure high quality and reliability, the failure or malfunction of semiconductor products may occur. The user of these products should therefore give thorough consideration to safety design, including redundancy, fire-prevention measures, and malfunction prevention, to prevent any accidents, fires, or community damage that may ensue.

▲ Update by Jan.2018