

## 1. General Description

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The EM74HCS21 is a dual 4-input AND gate with Schmitt-trigger inputs. Inputs include clamp diodes. This enables the use of current limiting resistors to interface inputs to voltages in excess of  $V_{CC}$ .

## 2. Features and Benefits

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- Wide supply voltage range from 2.0 V to 6.0 V
- High noise immunity
- CMOS low power dissipation
- Latch-up performance exceeds 250 mA
- Unlimited rise and fall times
- Complies with JEDEC standards:
  - JESD8C (2.7 V to 3.6 V)
  - JESD7A (2.0 V to 6.0 V)
- ESD protection:
  - HBM ANSI/ESDA/JEDEC JS-001 Class 2 exceeds 3500 V
  - CDM ANSI/ESDA/JEDEC JS-002 Class C3 exceeds 2000 V
- Multiple package options

### 3. Ordering Information

Table 1. Ordering information

Type number	Package		
	Name	Description	Quantity
EM74HCS21D	SOP-14L	plastic small outline package; 14 leads; body width 3.9 mm	3000
EM74HCS21PW	TSSOP-14L	plastic thin shrink small outline package; 14 leads; body width 4.4 mm	3000

### 4. Function Diagram

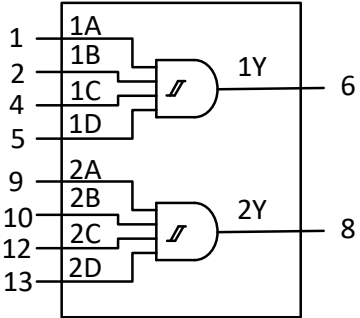


Fig. 1. Logic symbol

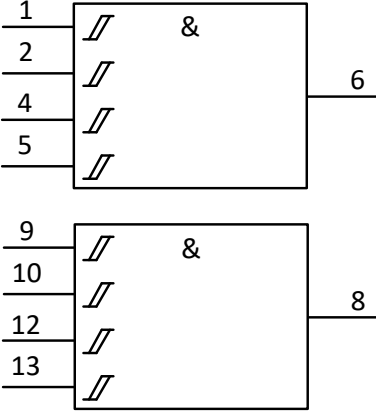


Fig. 2. IEC logic symbol

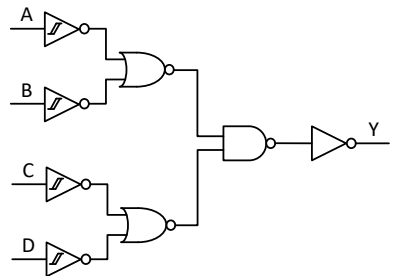
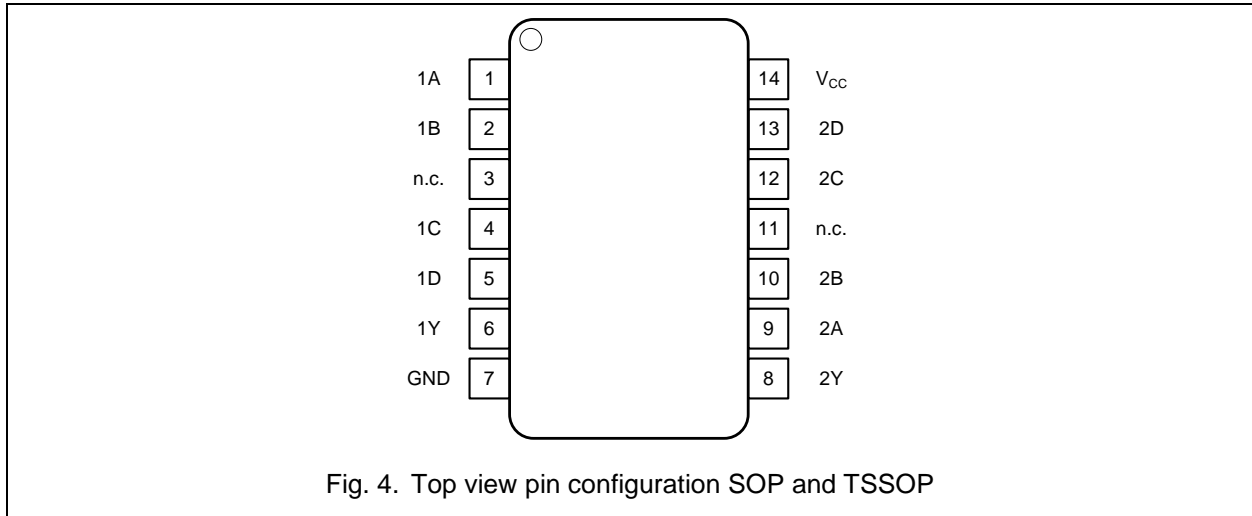


Fig. 3. Logic diagram(one gate)

## 5. Pinning Information

### 5.1. Pinning



### 5.2. Pin description

Table 2. Pin description

Symbol	Pin	Description
1A, 1B, 1C, 1D	1, 2, 4, 5	Data input
2A, 2B, 2C, 2D	9, 10, 12, 13	Data input
1Y, 2Y	6, 8	Data output
GND	7	Ground (0V)
V <sub>cc</sub>	14	Supply voltage
n.c.	3, 11	Not connected