

1. General Description

The EM74AHC1G14 and EM74AHCT1G14 are single inverters with Schmitt-trigger inputs. Inputs are overvoltage tolerant. This feature allows the use of these devices as translators in mixed voltage environments.

The AHC device has CMOS input switching levels and supply voltage range 2 V to 5.5 V.

The AHCT device has TTL input switching levels and supply voltage range 4.5 V to 5.5 V.

2. Features and Benefits

- Wide supply voltage range from 2.0 V to 5.5 V
- Overvoltage tolerant inputs to 5.5 V
- High noise immunity
- CMOS low power dissipation
- Latch-up performance exceeds 200 mA
- Symmetrical output impedance
- Balanced propagation delays
- Input levels:
 - For EM74AHC1G14: CMOS level
 - For EM74AHCT1G14: TTL level
- ESD protection:
 - HBM ANSI/ESDA/JEDEC JS-001 Class 3A exceeds 7000 V
 - CDM ANSI/ESDA/JEDEC JS-002 Class C3 exceeds 2000 V
- Multiple package options

EM74AHC1G14; EM74AHCT1G14

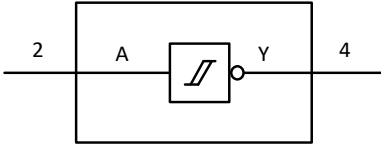
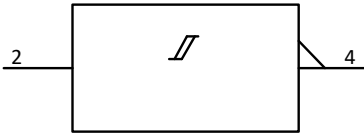
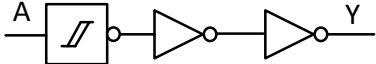
Inverting Schmitt trigger

3.Ordering Information

Table 1. Ordering information

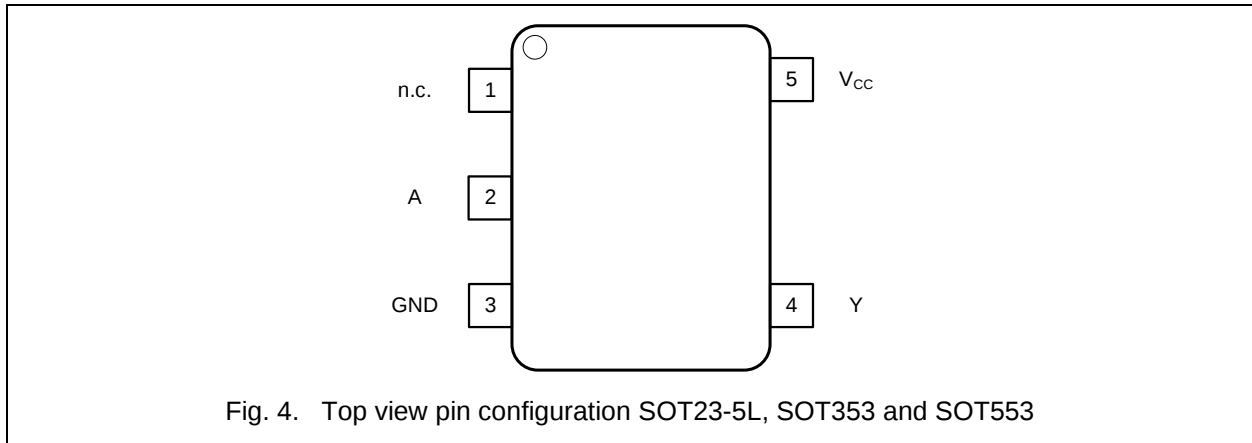
Type number	Topside marking	Package		
		Name	Description	Quantity
EM74AHC1G14GV	AAYW	SOT23-5L	SOT23 package, 5 pins 2.92 mm × 1.6 mm; 1.25 mm (Max) height	3000
EM74AHCT1G14GV	CAYW			
EM74AHC1G14GW	AAYW	SOT353	SOT353 package, 5 pins 2.1 mm × 1.25 mm; 1.1 mm (Max) height	3000
EM74AHCT1G14GW	CAYW			
EM74AHC1G14DRL	AAYW	SOT553	SOT553 package, 5 pins 1.6 mm × 1.2 mm; 0.6 mm (Max) height	3000
EM74AHCT1G14DRL	CAYW			

4.Function Diagram

 Fig. 1. Logic symbol	 Fig. 2. IEC logic symbol	 Fig. 3. Logic diagram
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5. Pinning Information

5.1. Pinning



5.2. Pin description

Table 2. Pin description

Symbol	Pin	Description
n.c.	1	Not connected
A	2	Data input
GND	3	Ground (0V)
Y	4	Data output
V _{CC}	5	Supply voltage

6. Functional Description

Table 3. Function table

H = HIGH voltage level; L = LOW voltage level.

Input	Output
A	Y
L	H
H	L