1.General Description

The EM74AHC1G08 and EM74AHCT1G08 are single 2-input AND gates. Inputs are overvoltage tolerant.This feature allows the use of these devices as translators in mixed voltage environments.

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 EM74AHC1G08: CMOS level
  - For EM74AHCT1G08: 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

3. Ordering Information

Table 1. Ordering information

Type number	Topside marking	Package		
		Name	Description	Quantity
EM74AHC1G08GV	A6YW	SOT23-5L	SOT23 package, 5 pins 2.92 mm × 1.6 mm; 1.25 mm (Max) height	3000
EM74AHCT1G08GV	C6YW			
EM74AHC1G08GW	A6YW	SOT353	SOT353 package, 5 pins 2.1 mm × 1.25 mm; 1.1 mm (Max) height	3000
EM74AHCT1G08GW	C6YW			
EM74AHC1G08DRL	A6YW	SOT553	SOT553 package, 5 pins 1.6 mm × 1.2 mm; 0.6 mm (Max) height	3000
EM74AHCT1G08DRL	C6YW			

4. Function Diagram

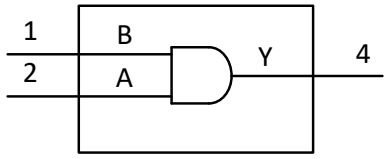

Fig. 1. Logic symbol

Fig. 2. IEC logic symbol

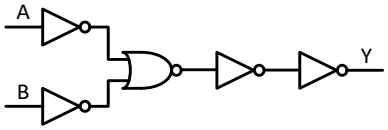

Fig. 3. Logic diagram

5.Pinning Information

5.1. Pinning

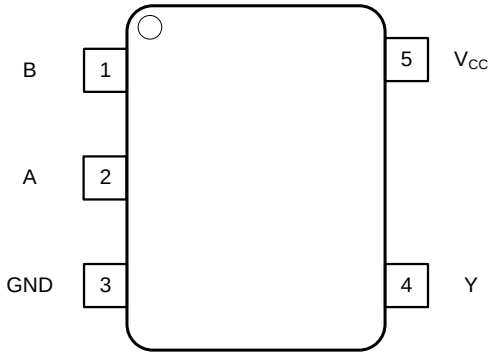

Fig. 4. Top view pin configuration SOT23-5L, SOT353 and SOT553

5.2. Pin description

Table 2. Pin description

Symbol	Pin	Description
B	1	Data input
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	**B**	**Y**
L	L	L
L	H	L
H	L	L
H	H	H