

## 1. General Description

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The EM74LVC1G17 is a single buffer Schmitt-trigger. Inputs can be driven from either 3.3 V or 5 V devices. This feature allows the use of these devices as translators in mixed 3.3 V and 5 V environments. This device is fully specified for partial power down applications using  $I_{OFF}$ . The  $I_{OFF}$  circuitry disables the output, preventing the potentially damaging backflow current through the device when it is powered down.

## 2. Features and Benefits

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- Wide supply voltage range from 1.65 V to 5.5 V
- Overvoltage tolerant inputs to 5.5 V
- High noise immunity
- $\pm 24$  mA output drive ( $V_{CC} = 3.0$  V)
- CMOS low power dissipation
- Latch-up performance exceeds 100 mA
- Direct interface with TTL levels
- $I_{OFF}$  circuitry provides partial Power-down mode operation
- Unlimited rise and fall times
- Complies with JEDEC standard:
  - JESD8-7 (1.65 V to 1.95 V)
  - JESD8-5 (2.3 V to 2.7 V)
  - JESD8B/JESD36 (2.7 V to 3.6 V)
- ESD protection:
  - HBM ANSI/ESDA/JEDEC JS-001 Class 3B exceeds 8000 V
  - MM JESD22-A115C Class C exceeds 550 V
  - CDM ANSI/ESDA/JEDEC JS-002 Class C3 exceeds 2000 V
- Multiple package options

## EM74LVC1G17

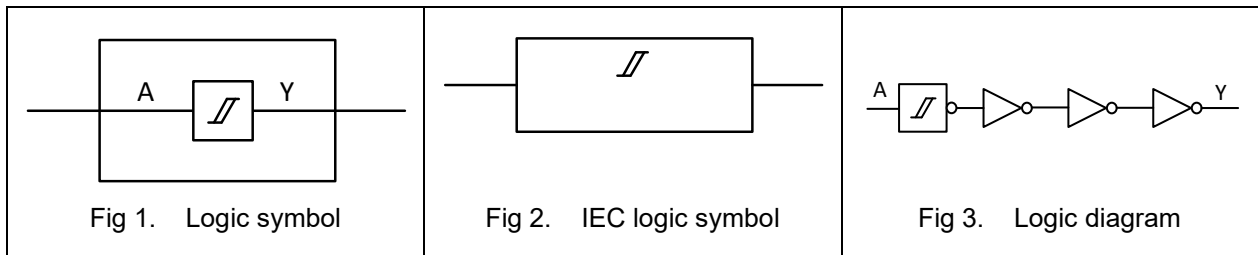
Single Schmitt trigger buffer

### 3. Ordering Information

Table 1. Ordering information

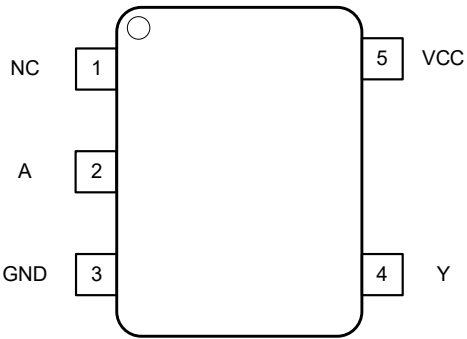
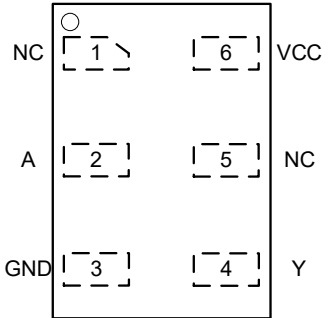
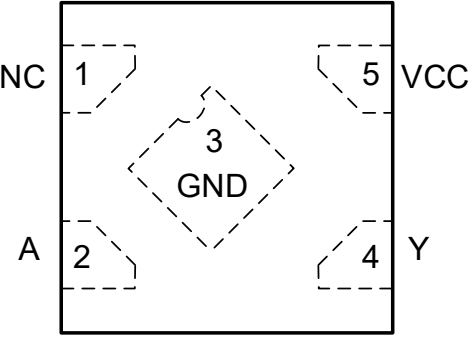
| Type number   | Topside marking | Package       |  | Quantity |
|---------------|-----------------|---------------|--|----------|
|               |                 | Name          | Description  |          |
| EM74LVC1G17GV | VCYW            | SOT23-5L      | SOT23 package, 5 pins<br>2.92 mm × 1.6 mm; 1.25 mm (Max) height    | 3000     |
| EM74LVC1G17GW | VCYW            | SOT353        | SOT353 package, 5 pins<br>2.1 mm × 1.25 mm; 1.1 mm (Max) height    | 3000     |
| EM74LVC1G17GS | VC              | DFN1x1-6L     | DFN1×1 package, 6 pins<br>1 mm × 1 mm; 0.42 mm (Max) height        | 3000     |
| EM74LVC1G17GM | VCYW            | DFN1x1.45-6L  | DFN1.45×1 package, 6 pins<br>1.45 mm × 1 mm; 0.6 mm (Max) height   | 3000     |
| EM74LVC1G17GX | VC              | DFN0.8x0.8-4L | DFN0.8×0.8 package, 5 pins<br>0.8 mm × 0.8 mm; 0.4 mm (Max) height | 3000     |

### 4. Function Diagram



## 5. Pinning Information

### 5.1. Pin map

|   |   |
|---|---|
|  <p>Fig 4. Top view pin configuration SOT23-5 and SOT353</p> |  <p>Fig 5. Top view pin configuration DFN6L</p> |
|  <p>Fig 6. Top view pin configuration DFN4L</p>             |   |

### 5.2. Pin description

Table 2. Pin description

| Symbol | Pin                       |       | Description    |
|--------|---------------------------|-------|----------------|
|        | SOT23-5, SOT353 and DFN4L | DFN6L |                |
| NC     | 1                         | 1, 5  | Not connected  |
| A      | 2                         | 2     | Data input     |
| GND    | 3                         | 3     | Ground (0V)    |
| Y      | 4                         | 4     | Data output    |
| VCC    | 5                         | 6     | Supply voltage |