

## 1. General Description

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The EM74LVC1G126 is a single buffer/line driver with 3-state output. 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.

Schmitt-trigger action at all inputs makes the circuit tolerant of slower input rise and fall times. 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
- CMOS low power dissipation
- $I_{OFF}$  circuitry provides partial Power-down mode operation
- $\pm 24$  mA output drive ( $V_{CC} = 3.0$  V)
- Latch-up performance exceeds 100 mA
- Direct interface with TTL levels
- Complies with JEDEC standard:
  - JESD8-7 (1.65 V to 1.95 V)
  - JESD8-5 (2.3 V to 2.7 V)
  - JESD8C (2.7 V to 3.6 V)
  - JESD36 (4.5 V to 5.5 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

# EM74LVC1G126

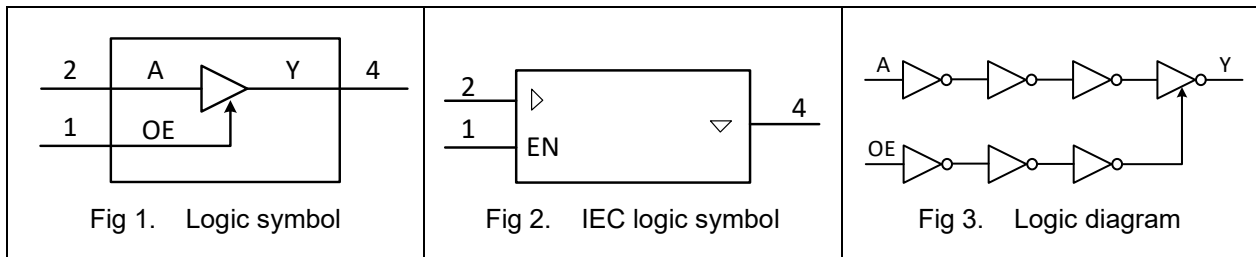
Bus buffer/line driver; 3-state

## 3. Ordering Information

Table 1. Ordering information

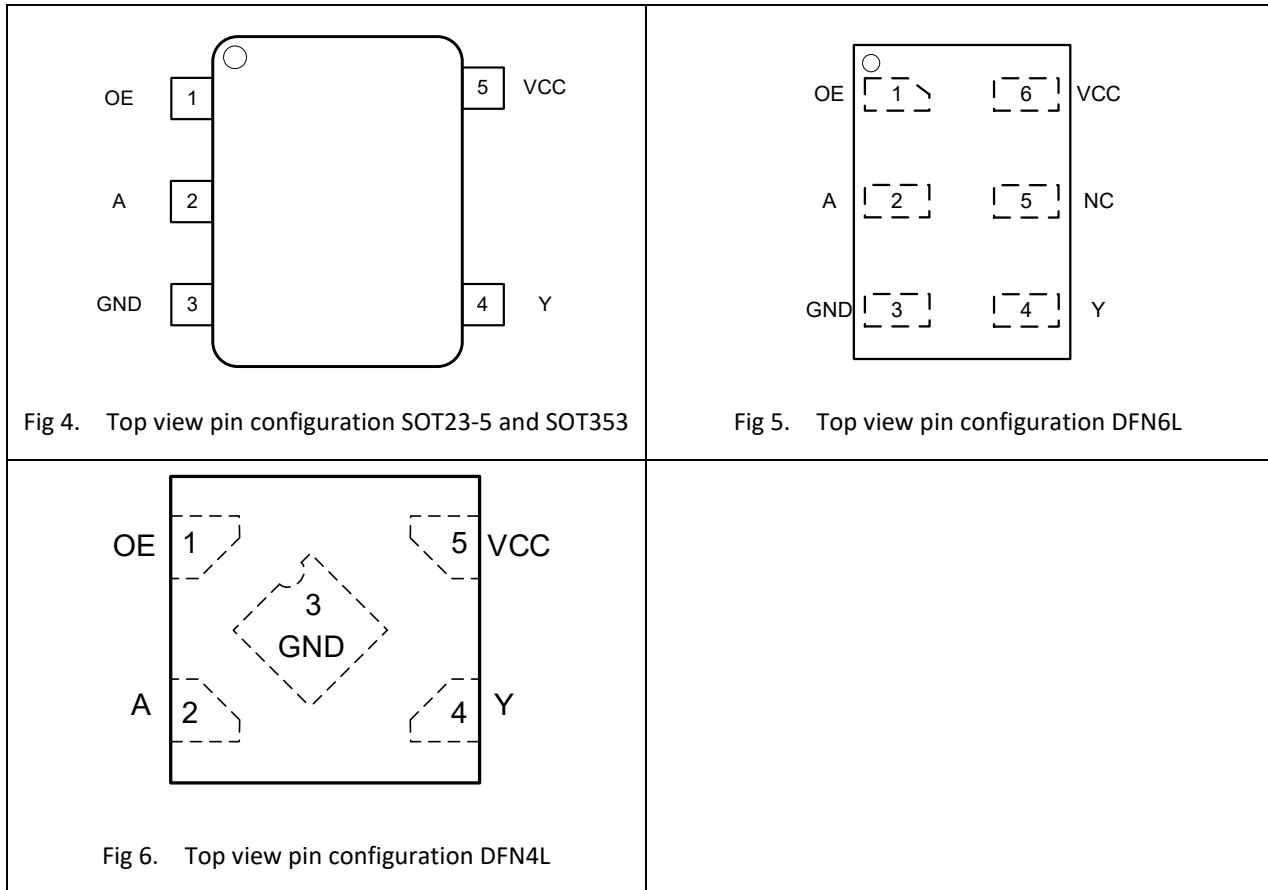
| Type number    | Topside marking | Package       |  | Quantity |
|----------------|-----------------|---------------|--|----------|
|                |                 | Name          | Description  |          |
| EM74LVC1G126GV | VQYW            | SOT23-5L      | SOT23 package, 5 pins<br>2.92 mm × 1.6 mm; 1.25 mm (Max) height    | 3000     |
| EM74LVC1G126GW | VQYW            | SOT353        | SOT353 package, 5 pins<br>2.1 mm × 1.25 mm; 1.1 mm (Max) height    | 3000     |
| EM74LVC1G126GS | VQ              | DFN1x1-6L     | DFN1×1 package, 6 pins<br>1 mm × 1 mm; 0.42 mm (Max) height        | 3000     |
| EM74LVC1G126GM | VQYW            | DFN1x1.45-6L  | DFN1.45×1 package, 6 pins<br>1.45 mm × 1 mm; 0.6 mm (Max) height   | 3000     |
| EM74LVC1G126GX | VQ              | 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



### 5.2. Pin description

Table 2. Pin description

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