

1. General Description

The EM74LVC125A is a quad buffer/line driver with 3-state outputs controlled by the output enable inputs (\overline{nOE}). A HIGH on \overline{nOE} causes the outputs to assume a high impedance OFF-state. 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

- Wide supply voltage range from 1.2 V to 5.5 V
- Overvoltage tolerant inputs to 5.5 V
- CMOS low power dissipation
- I_{OFF} circuitry provides partial Power-down mode operation
- Latch-up performance exceeds 250 mA
- Direct interface with TTL levels
- Complies with JEDEC standard:
 - JESD8-7A (1.65 V to 1.95 V)
 - JESD8-5A (2.3 V to 2.7 V)
 - JESD8-C (2.7 V to 3.6 V)
 - JESD36 (4.5 V to 5.5 V)
- ESD protection:
 - HBM ANSI/ESDA/JEDEC JS-001 Class 3A exceeds 6000 V
 - CDM ANSI/ESDA/JEDEC JS-002 Class C3 exceeds 2000 V
- Multiple package options

EM74LVC125A

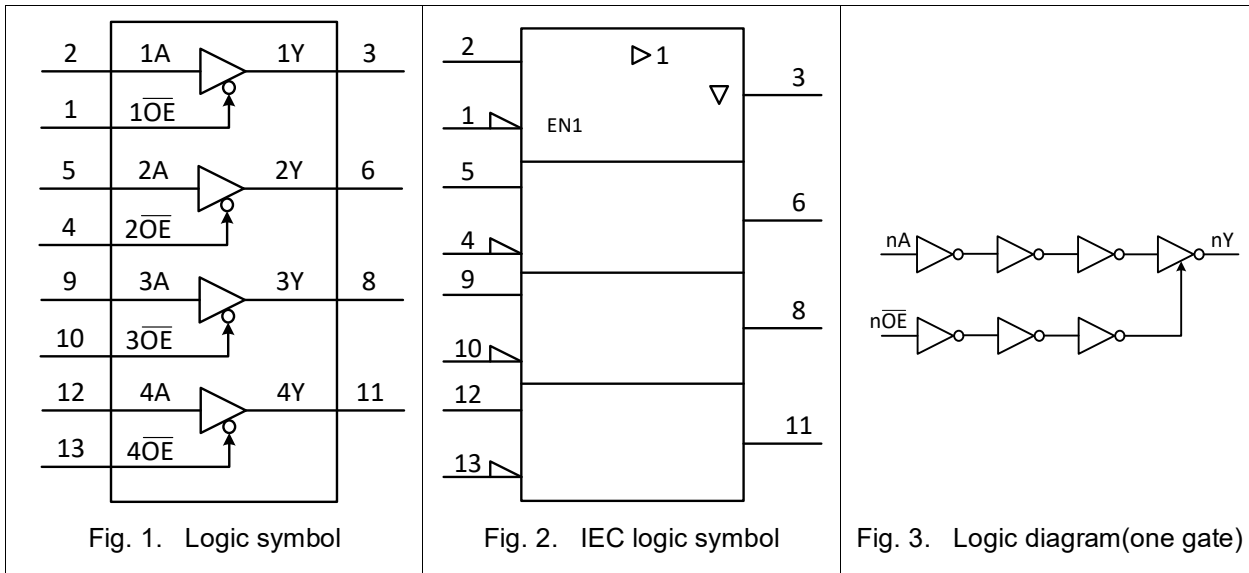
Quad buffer/line driver with 5 V tolerant input/outputs; 3-state

3. Ordering Information

Table 1. Ordering information

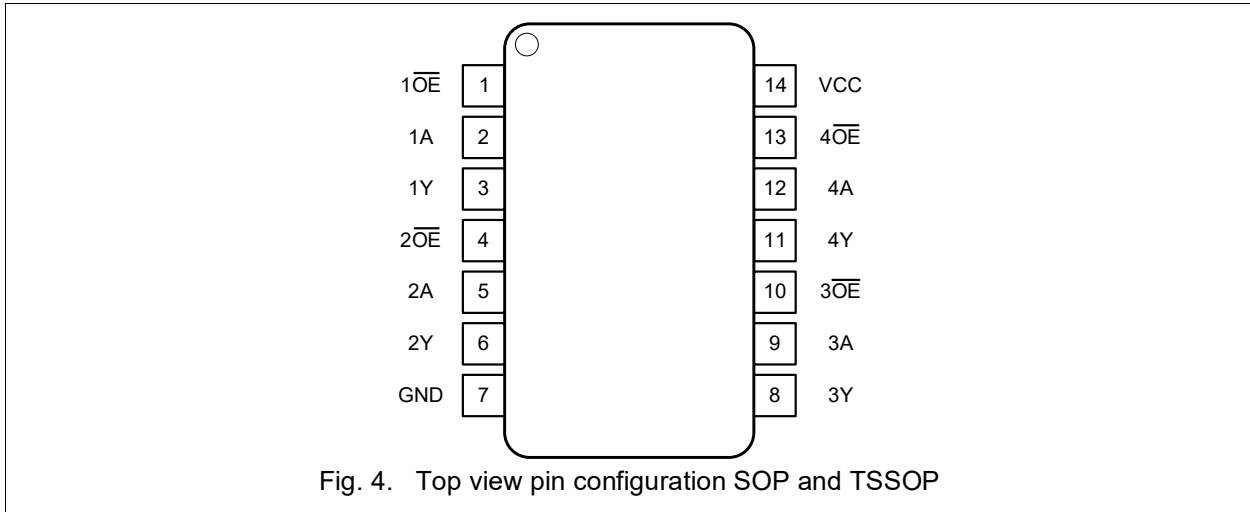
Type number	Package		
	Name	Description	Quantity
EM74LVC125AD	SOP-14L	plastic small outline package; 14 leads; body width 3.9 mm	3000
EM74LVC125APW	TSSOP-14L	plastic thin shrink small outline package; 14 leads; body width 4.4 mm	3000

4. Function Diagram



5. Pinning Information

5.1. Pinning



5.2. Pin description

Table 2. Pin description

Symbol	Pin	Description
$1\overline{OE}$, $2\overline{OE}$, $3\overline{OE}$, $4\overline{OE}$	1, 4, 10, 13	Data enable input(active LOW)
1A, 2A, 3A, 4A	2, 5, 9, 12	Data input
1Y, 2Y, 3Y, 4Y	3, 6, 8, 11	Data output
GND	7	Ground (0V)
V _{CC}	14	Supply voltage

6. Functional Description

Table 3. Function table

H = HIGH voltage level; L = LOW voltage level; X = don't care; Z = high-impedance OFF-state.

Input		Output
$n\overline{OE}$	nA	nY
L	L	L
L	H	H
H	X	Z