

## Product Overview

### NC7SZ125: TinyLogic UHS Buffer with 3-STATE Output

For complete documentation, see the data sheet.

The NC7SZ125 is a single buffer with three-state output from ON Semiconductor's Ultra-High Speed (UHS) of TinyLogic®. The device is fabricated with advanced CMOS technology to achieve ultra high speed with high output drive while maintaining low static power dissipation over a very broad VCC operating range. The device is specified to operate over the 1.65V to 5.5V range. The inputs and output are high impedance above ground when VCC is 0V. Inputs tolerate voltages up to 6V independent of VCC operating voltage. The output tolerates voltages above VCC when in the 3-STATE condition.

### Features

- Ultra-High Speed: t<sub>PD</sub> 2.6ns (Typical) into 50pF at 5V VCC
- High Output Drive: ±24mA at 3V VCC
- Broad VCC Operating Range: 1.65V to 5.5V
- Matches Performance of LCX Operated at 3.3V VCC
- Power Down High-Impedance Inputs/Outputs
- Over-Voltage Tolerance Inputs Facilitate 5V to 3V Translation
- Proprietary Noise/EMI Reduction Circuitry
- Ultra-Small MicroPak™ Packages
- Space-Saving SOT23 and SC70 Packages

### Applications

- This product is general usage and suitable for many different applications.

### Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Channels	Output	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	t <sub>pd</sub> Max (ns)	I <sub>O</sub> Max (mA)	Package Type
NC7SZ125FHX	0.1752	Pb-free	Active	1	3-State	1.65	5.5	2.6	32	UDFN-6
		Halide free								
NC7SZ125L6X	0.1192	Pb-free	Active	1	3-State	1.65	5.5	2.6	32	SIP-6
		Halide free								
NC7SZ125M5X	0.0707	Pb-free	Active	1	3-State	1.65	5.5	2.6	32	SOT-23-5
		Halide free								
NC7SZ125P5X	0.0516	Pb-free	Active	1	3-State	1.65	5.5	2.6	32	SC-88A-5 / SC-70-5
		Halide free								

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

Created on: 4/3/2020