

Product Overview

NC7SP05: TinyLogic ULP Inverter (Open Drain Output)

For complete documentation, see the data sheet.

The NC7SP05 is a single inverter with open drain output from Fairchild's Ultra Low Power (ULP) series of TinyLogic®. Ideal for applications where battery life is critical, this product is designed for ultra low power consumption within the V_{CC} operating range of 0.9V to 3.6V V_{CC} . The internal circuit is composed of a minimum of inverter stages, including the output buffer, to enable ultra low static and dynamic power. The NC7SP05, for lower drive requirements, is uniquely designed for optimized power and speed, and is fabricated with an advanced CMOS technology to achieve best in class speed operation while maintaining extremely low CMOS power dissipation.

Features

- 0.9V to 3.6V V_{CC} supply operation
- 3.6V overvoltage tolerant I/O's at V_{CC} from 0.9V to 3.6V
- t_{PD} 3.0 ns typ for 3.0V to 3.6V V_{CC} 4.0 ns typ for 2.3V to 2.7V V_{CC} 5.0 ns typ for 1.65V to 1.95V V_{CC} 6.0 ns typ for 1.40V to 1.60V V_{CC} 9.0 ns typ for 1.10V to 1.30V V_{CC} 24.0 ns typ for 0.90V V_{CC}
- Power-Off high impedance inputs and outputs
- Static Drive (I_{OH}/I_{OL}) ± 2.6 mA @ 3.00V V_{CC} ± 2.1 mA @ 2.30V V_{CC} ± 1.5 mA @ 1.65V V_{CC} ± 1.0 mA @ 1.40V V_{CC} ± 0.5 mA @ 1.10V V_{CC} ± 20 μ A @ 0.9V V_{CC}
- Uses patented Quiet Series™ noise/EMI reduction circuitry
- Ultra small MicroPak™ leadfree package
- Ultra Low dynamic power

Applications

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

Part Electrical Specifications

Product	Compliance	Status	Channels	Output	V_{CC} Min (V)	V_{CC} Max (V)	t_{pd} Max (ns)	I_o Max (mA)	Package Type
NC7SP05L6X	Pb-free	Active	1	CMOS	0.9	3.6	3	2.6	SIP-6
	Halide free								
NC7SP05P5X	Pb-free	Active	1	CMOS	0.9	3.6	3	2.6	SC-88A-5 / SC-70-5
	Halide free								

For more information please contact your local sales support at www.onsemi.com.

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