

Product Overview

MC10EL05: 5.0 V ECL 2-Input Differential AND/NAND Gate

For complete documentation, see the data sheet.

The MC10EL/100EL05 is a 2-input differential AND/NAND gate. The device is functionally equivalent to the E404 device with higher performance capabilities. With propagation delays and output transition times significantly faster than the E404 the EL05 is ideally suited for those applications which require the ultimate in AC performance. Because a negative 2-input NAND is equivalent to a 2-input OR function, the differential inputs and outputs of the device allows the EL05 to also be used as a 2-input differential OR/NOR gate. The differential inputs employ clamp circuitry so that under open input conditions (pulled down to VEE) the input to the AND gate will be HIGH. In this way, if one set of inputs is open, the gate will remain active to the other input. The 100 Series contains temperature compensation.

Features

- 275ps Propagation Delay
- ESD Protection: > 1 kV HBM, > 100 V MM
- PECL Mode Operating Range: VCC= 4.2 V to 5.7 V with VEE= 0 V
- NECL Mode Operating Range: VCC= 0 V with VEE= -4.2 V to -5.7 V
- Internal Input Pulldown Resistors
- Meets or Exceeds JEDEC Spec EIA/JESD78 IC Latchup Test
- Moisture Sensitivity Level 1 For Additional Information, see Application Note AND8003/D
- Flammability Rating: UL-94 code V-0 @ 1/8", Oxygen Index 28 to 34
- Transistor Count = 44 devices
- Pb-Free Packages are Available

For more features, see the data sheet

Part Electrical Specifications

Product	Compliance	Status	Type	Channels	Input Level	Output Level	V _{CC} Typ (V)	f _{Toggle} Max (MHz)	t _{pd} Typ (ns)	t _{Jitter} Typ (ps)	t _r & t _f Max (ps)	Package Type
MC10EL05DR2G	Pb-free Halide free	Active	AND/NAND	1	ECL	ECL	5	2000	0.275	1	350	SOIC-8

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

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