

## Product Overview

### MC100EL57: Multiplexer, 4:1 Differential, ECL, 5.0 V

For complete documentation, see the data sheet.

The MC10/100EL57 is a fully differential 4:1 multiplexer. By leaving the SEL1 line open (pulled LOW via the input pulldown resistors) the device can also be used as a differential 2:1 multiplexer with SEL0 input selecting between D0 and D1. The SEL1 is the most significant select line. The binary number applied to the select inputs will select the same numbered data input (i.e., 00 selects D0).

Multiple  $V_{BB}$  outputs are provided for single-ended or AC coupled interfaces. The  $V_{BB}$  pin, an internally generated voltage supply, is available to this device only. For single-ended input conditions, the unused differential input is connected to  $V_{BB}$  as a switching reference voltage.  $V_{BB}$  may also rebias AC coupled inputs. When used, decouple  $V_{BB}$  and  $V_{CC}$  via a 0.01 F capacitor and limit current sourcing or sinking to 0.5 mA. When not used,  $V_{BB}$  should be left open.

The 100 Series contains temperature compensation.

### Features

- Useful as Either 4:1 or 2:1 Multiplexer
- $V_{BB}$  Output for Single-Ended Operation
- PECL Mode Operating Range:  $V_{CC} = 4.2\text{ V to }5.7\text{ V}$  with  $V_{EE} = 0\text{ V}$
- NECL Mode Operating Range:  $V_{CC} = 0\text{ V}$  with  $V_{EE} = -4.2\text{ V to }-5.7\text{ V}$
- Internal Input Pulldown Resistors on D(s) and SEL(s).
- Pb-Free Packages are Available

### Part Electrical Specifications

Product	Compliance	Status	Input/Output Ratio	Channels	Input Level	Output Level	$V_{CC}$ Typ (V)	$f_{Max}$ Typ (MHz)	$t_{Jitter}$ Typ (ps)	$t_{skew(OO)}$ Max (ps)	$t_{pd}$ Typ (ns)	Package Type
MC100EL57DG	Pb-free	Active	4:1	1	ECL	ECL	5	1000	1	100	0.46	SOIC-16
	Halide free											
MC100EL57DR2G	Pb-free	Active	4:1	1	ECL	ECL	5	1000	1	100	0.46	SOIC-16
	Halide free											

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