

NLB6205

NEL
SELIC

Quad exclusive OR/NOR

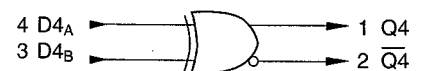
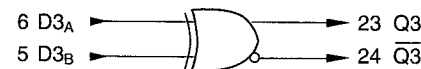
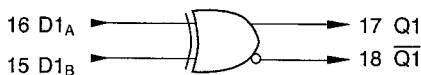
Description

The NLB6205 is an ultra high-speed monolithic quad exclusive OR/NOR gates.

Features

- Typical AC characteristics
Data rate up to 4 Gb/s.
 $t_r = 120\text{ps}$
 $t_f = 110\text{ps}$
- Internal pull down resistors on input pins to maintain logic LOW level with the pins left open.
- ECL 100K compatible I/O levels.
- Differential outputs.

Logic Symbol



V_{CC} 22
V_{CCA} 9,21
V_{EE} 10
NC 7,8,11,12

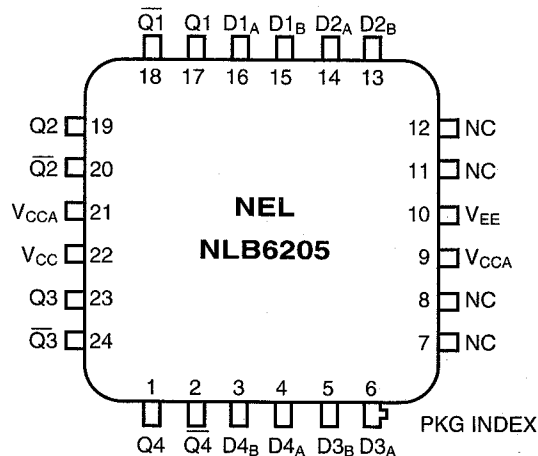
Truth table

Input		output	
D _{nA}	D _{nB}	Q _n	$\overline{Q_n}$
L	L	L	H
L	H	H	L
H	L	H	L
H	H	L	H

H : High voltage level

L : Low voltage level

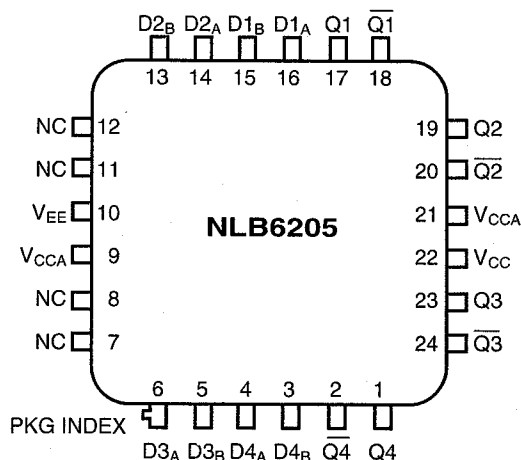
Pin Assignment Top View (Ceramic)



Pin Name

D_{nA}, $\overline{D_nB}$ Data inputs
Q_n, $\overline{Q_n}$ Data outputs
V_{CC} Circuit GND
V_{CCA} Circuit GND for outputs
V_{EE} -4.5V

Back View (Metal Cap)



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DC Characteristics

$V_{EE} = -4.5V \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $T_C = 0^{\circ}C$ to $+85^{\circ}C$, $R_T = 50\Omega$ to V_{TT}

Characteristics	Symbol	Min.	Typ.	Max.	Unit
Power supply current	I_{EE}	95	160	215	mA

AC Characteristics

$V_{EE} = -4.5V \pm 0.3V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $T_C = 0^{\circ}C$ to $+85^{\circ}C$, $R_T = 50\Omega$ to V_{TT}

Characteristics	Symbol	Min.	Typ.	Max.	Unit
Propagation delay to output	t_{PLH}		380	510	ps
	t_{PHL}		360	480	
Rise time 20% to 80%	t_r		120	160	
Fall time 80% to 20%	t_f		110	150	

Typical Output Voltage Swing

$V_{EE} = -4.5V$, $V_{CC} = V_{CCA} = GND$, $V_{TT} = -2V$, $R_T = 50\Omega$ to V_{TT}

