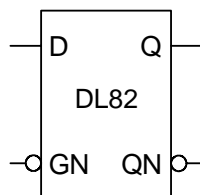


DL82 is a transparent D-latch with 2x drive strength. The Q output follows the D input when GN is low. The Q output is independent of D when GN is high and retains the value of D just prior to the rising edge on GN.

Truth Table

D	GN	Q	QN
L	L	L	H
H	L	H	L
X	H	no change	



Capacitance

	Ci (pF)
D	0.013
GN	0.023

Area

0.95 mils²

Power

4.61 μ W/MHz

Delay [ns] = tpd.. = f(SL, L) with SL = Input Slope [ns] ; L = Output Load [pF]

Output Slope [ns] = op_sl.. = f(L) with L = Output Load [pF]

AC Characteristics : Tj = 25°C VDD = 3.3V Typical Process

AC Characteristics

Characteristics	Symbol	SL = 0.1			SL = 2.0		
		L = 0.2	L = 1.4	L = 2.0	L = 0.2	L = 1.4	L = 2.0
Delay D to Q	tpddqr	1.02	2.48	3.19	1.11	2.57	3.26
	tpddqf	1.27	2.59	3.16	1.45	2.76	3.33
Delay D to QN	tpddqnr	1.72	3.10	3.75	1.89	3.27	3.91
	tpddqnf	1.47	2.62	3.17	1.57	2.71	3.26
Delay GN to Q	tpdgnqr	1.25	2.71	3.41	1.55	3.01	3.71
	tpdgnqf	1.57	2.89	3.46	1.86	3.19	3.76
Delay GN to QN	tpdgnqnr	2.04	3.43	4.13	2.34	3.72	4.44
	tpdgnqnf	1.71	2.86	3.45	2.02	3.17	3.73
Output Slope D to Q	op_sldqr	1.07	5.30	7.32	1.08	5.27	7.28
	op_sldqf	1.01	4.05	5.30	1.00	4.02	5.32
Output Slope D to QN	op_sldqnr	1.01	5.13	7.25	0.96	5.18	7.20
	op_sldqnf	0.78	3.78	5.45	0.78	3.77	5.41
Output Slope GN to Q	op_slgnqr	1.03	5.13	7.50	1.05	5.28	7.33
	op_slgnqf	0.98	4.01	5.32	1.00	3.98	5.73
Output Slope GN to QN	op_slgnqnr	1.00	5.15	7.25	1.00	5.11	7.38
	op_slgnqnf	0.76	3.81	5.42	0.75	3.80	5.50

Characteristics		Symbol	[ns]	Characteristics		Symbol	[ns]
Min D Setup Time to GN	High	tsudgnh	0.74	Min D Hold Time to GN	High	thdgnh	0.00
	Low	tsudgnl	0.92		Low	thdgnl	0.00
Min GN Width	Low	twgn	0.96				