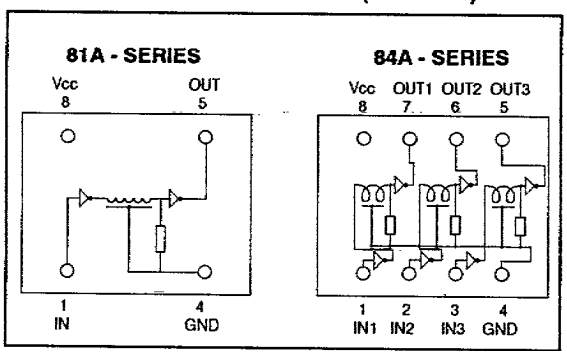
DIGITAL DELAY MODULES 81A, 84A Series
Single Output and Triple Independent 8 Pin DIP

- ❒ Schottky TTL buffered
- ❒ 8 pin package
- ❒ Low profile
- ❒ TTL compatible

DUAL-IN-LINE PACKAGE (TOP VIEW)



description

The 81A and 84A series of Digital Delay Modules are Schottky TTL buffered delay lines providing precise delay times and direct compatibility with TTL. A single output fixed delay and triple independent equal delays are packaged in low profile 8 pin dual-in-line configurations. Internal termination of the delay lines and compensation for propagation delays are incorporated in the design so that no additional external components are required. These modules are very compact and are particularly suitable for high density board designs.

absolute maximum ratings over operating free-air temperature range

Supply voltage V_{cc} 7V
Input voltage 5.5V
Min pulse width as % of total delay 80%
Input pulse repetition rate PRR . . . . . 3 x pulse width min.
Operating free-air temperature range . . . . . 0C to 70C
Storage temperature range . . . . . .–55C to 125C
Temperature coefficient of delay . . . . . ±300ppm/C
Lead temperature 1.5mm from case for 10 seconds 300C

drive capabilities

Logic 0 & 1 output . . . . . 10 TTL loads max.

electrical specifications over operating free-air temperature range, $V_{CC} = 5 \pm 0.25V$

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
V_{IH} High-level input voltage		2			V
V_{IL} Low-level input voltage				0.8	V
V_{OH} High-level output voltage	V_{IH} =2V, I_{OH}=–1mA V_{CC} =4.75V	2.7	3.4		V
V_{OL} Low-level output voltage	V_{CC} =4.75V I_{OL}=20mA,V_{IL} =0.8V			0.5	V
I_{IH} High-level input current	V_{CC}=5.25V,V_{IH}=2.7V			50	μA
I_{IL} Low-level input current	V_{CC}=5.25V, V_{IL}=0.5V			–2	mA
I_{CC} Supply current outputs high	V_{CC}=5.25V			24	mA
I_{CC} Supply current outputs low	V_{CC}=5.25V			54	mA

delay characteristics Vcc = 5V, Ta = 25C, no load at output;input test pulse width 100% of total delay, rise time 3.0ns.

delay tolerance from input to tap ±2ns or ±5% whichever is greater

81A SERIES Single Output 8 Pin DIP
Package style A with pins 2, 3, 6 and 7 missing

PART No.	TOTAL DELAY (ns) ±5% (1)	RISE TIME (ns) max.	PART No.	TOTAL DELAY (ns) ±5% (1)	RISE TIME (ns) max.
81A - 010	10	4	81A - 090	90	4
81A - 020	20	4	81A - 100	100	4
81A - 030	30	4	81A - 125	125	4
81A - 040	40	4	81A - 150	150	4
81A - 050	50	4	81A - 200	200	4
81A - 060	60	4	81A - 250	250	4
81A - 070	70	4	81A - 300	300	4
81A - 080	80	4	81A - 400	400	4

84A Triple independent 8 Pin DIP. Package style A

PART No.	TOTAL DELAY (ns) ±5% (1)	RISE TIME (ns) max.	PART No.	TOTAL DELAY (ns) ±5% (1)	RISE TIME (ns) max.
84A - 010	10	4	84A - 060	60	4
84A - 020	20	4	84A - 070	70	4
84A - 030	30	4	84A - 080	80	4
84A - 040	40	4	84A - 090	90	4
84A - 050	50	4	84A - 100	100	4

Note: Delays measured at 1.5V on leading edge, Rise Time measured from 0.75V to 2.4V
(1) or ±2ns whichever is greater.