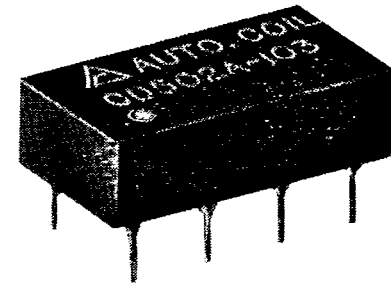


CD502A Series

## TTL Digital Delay Module, Multi Delay

T-47-13

- TTL inputs and outputs
- Precise and stable delays
- Reliable hybrid construction
- No external components required
- Fan out 10TTL loads/section, 20TTL loads/package
- Operating temperature 0° to 70°C
- Storage temperature -55° to +125°C



14 PIN DIP

**Electrical Characteristics:**

V <sub>IH</sub> (High level input voltage)	2.0 to 5.0V
I <sub>IH</sub> (High level input current)	50 $\mu$ A Max.
V <sub>IL</sub> (Low level input voltage)	0.8 V Max.
I <sub>IL</sub> (Low level input current)	-2 ma Max.
V <sub>OH</sub> (High level output voltage)	2.5 V Min.
V <sub>OL</sub> (Low level output voltage)	0.5 V Max.
V <sub>CC</sub> (Supply voltage)	5.0 V $\pm$ 0.25 V DC
I <sub>CC</sub> (Supply current)	115 ma Max.

**Mechanical Specifications:**

Case: Epoxy filled D.A.P.  
Leads: Alloy 42 or equiv.  
solder coated  
Marking: White epoxy ink

**Also Available:**

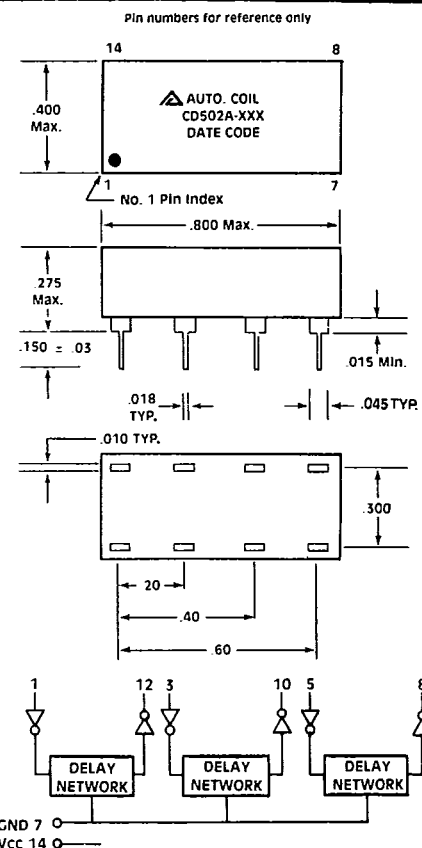
Intermediate delay increments  
Tighter delay tolerances  
Falling edge delay specifications  
Military versions  
AS, LS & advanced low  
power Schottky versions

Input & test conditions are not limiting parameters. All digital delay modules can be operated at conditions other than specified. Since accuracies may be slightly affected, we suggest that the module be evaluated under specific operating conditions.

Specifications subject to change without notice.

Delay (In NS) $\pm$ 2 NS or 5% Whichever is Greater			
Automatic Coil Part Number	PIN 1 to 12	PIN 3 to 10	PIN 5 to 8
CD502A-101	5	5	5
CD502A-102	10	10	10
CD502A-103	20	20	20
CD502A-104	30	30	30
CD502A-105	40	40	40
CD502A-106	50	50	50
CD502A-107	60	60	60
CD502A-108	70	70	70
CD502A-109	80	80	80
CD502A-110	90	90	90
CD502A-111	100	100	100
CD502A-121	5	10	20
CD502A-122	10	20	20
CD502A-123	10	10	30
CD502A-124	20	30	50
CD502A-125	50	50	100

Output rise times (TPLH) 4.0 NS max. (0.75 to 2.4 V level).

**Test Conditions:**

- 1) All measurements are made @ 25°C
- 2) VCC is maintained @ 5.0 VDC
- 3) All measurements are made with no loads on outputs
- 4) Delays are measured @ 1.5V level
- 5) Delays & tolerances for leading edges only (TPLH) - falling edges (TPHL) closely matched to TPLH

**Input Conditions:**

- 1) Pulse amplitude: 3.20 V
- 2) Input rise time: 3.0 NS (10 to 90%)
- 3) Pulse width: 3  $\times$  total delay
- 4) Duty cycle: < 25%