

## DIGITAL DELAY LINE SERIES 0453 ECL 10KH PROGRAMMABLE LOGIC DELAY MODULE 4 BIT

### TECHNICAL INFORMATION

#### TEST CONDITIONS

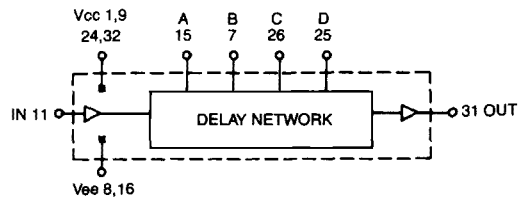
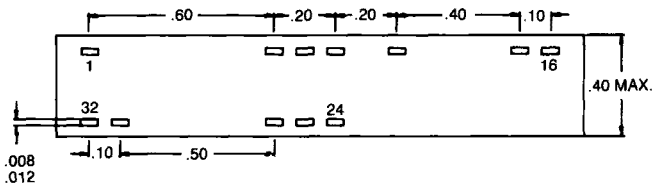
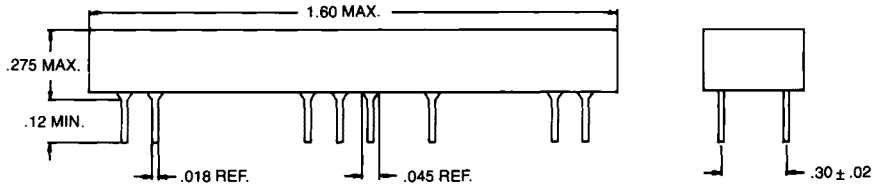
Logic 1	- 0.9 Volts
Logic 0	- 1.8 Volts
Rise Time 20% to 80%	1.0 Nsec
Pulse Width	1.5 x Total Delay
Pulse Period	1000 Nsec
Supply Voltage, V <sub>ee</sub>	- 5.2 Volts
Output Terminations	50 Ohm
	± 1% to - 2 Volts
Ambient Temperature	25°C

#### PERFORMANCE CHARACTERISTICS

Delay Tolerances  
As Specified in Table  
Performance Characteristics apply at  
above listed Test Conditions.

#### ELECTRICAL CHARACTERISTICS

- Supply Voltage, V<sub>cc</sub>  
- 4.94 To - 5.46 Volts
- Logic 1 Input Voltage  
- 1.13 Volts min.
- Logic 1 Input Current  
600 Microamp max.
- Logic 1 Output Voltage  
- 0.98 Volts min.
- Logic 0 Input Voltage  
- 1.48 Volts max.
- Logic 0 Input Current  
1 Microamp min.
- Logic 0 Output Voltage  
- 1.63 Volts max.
- Operating Temperature Range  
0°C To 75°C
- Temperature Coefficient Of Total Delay  
150PPM/°C Typical
- Compatible with ECL 10KH circuits.
- Other delays and tolerances upon request.



Part Number	* Min. Delay (Nom.) 1	** Max. Delay (Nom.) 1	Δ Delay /Step 1	Total Programmable Delay and its Tolerance 1
0453-0020-04	5 ± 1NS	20NS	1 ± .4NS	15 ± .8NS
0453-0035-04	5 ± 1NS	35NS	2 ± .5NS	30 ± 1.2NS
0453-0050-04	5 ± 1NS	50NS	3 ± .5NS	45 ± 1.6NS
0453-0065-04	5 ± 1NS	65NS	4 ± .6NS	60 ± 1.8NS
0453-0080-04	5 ± 1NS	80NS	5 ± .6NS	75 ± 2.0NS
0453-0095-04	5 ± 1NS	95NS	6 ± .8NS	90 ± 2.4NS
0453-0100-04	5 ± 1NS	100NS	7 ± .8NS	105 ± 2.8NS
0453-0125-04	5 ± 1NS	125NS	8 ± 1NS	120 ± 3.2NS
0453-0140-04	5 ± 1NS	140NS	9 ± 1NS	135 ± 3.6NS
0453-0155-04	5 ± 1NS	155NS	10 ± 1NS	150 ± 4.0NS

1 Delays measured at 50% of the pulse on leading edge only.

#### CONTROL SIGNAL TABLE

D	C	B	A
0	0	0	0 *
0	0	0	1
0	0	1	0
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1	1	1	0
1	1	1	1 **

16 STEPS

\* Minimum delay code  
\*\* Maximum delay code

Specifications Subject To Change Without Notice