

## DIGITAL DELAY LINE SERIES 0459 HIGH SPEED ECL 10KH DELAY MODULE 5 TAP

### TECHNICAL INFORMATION

#### TEST CONDITIONS

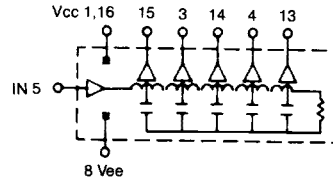
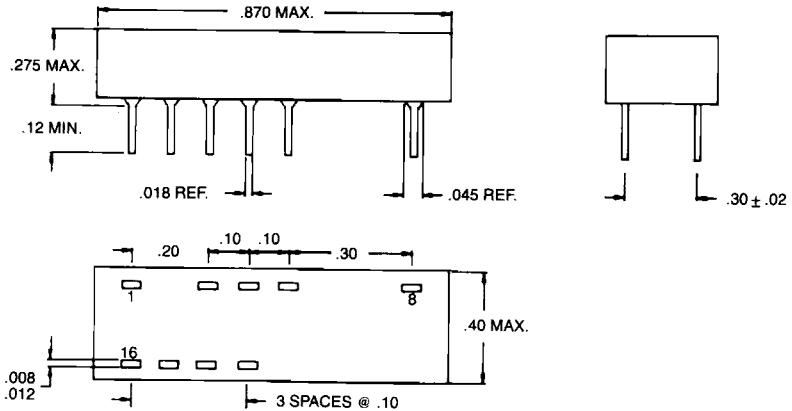
Logic 1	- 0.9 Volts
Logic 0	- 1.8 Volts
Rise Time	1.0 Nsec (20%-80%)
Pulse Width	Total Delay + 10.0 Nsec
Pulse Period	4 x Pulse Width
Supply Voltage, Vee	- 5.2 Volts
Output Terminations	50 Ohm ± 1% to - 2 Volts
Ambient Temperature	25°C

#### PERFORMANCE CHARACTERISTICS

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

#### ELECTRICAL CHARACTERISTICS

Supply Voltage, Vee	- 4.94 To 5.46 Volts
Logic 1 Input Voltage	- 1.13 Volts min.
Logic 1 Input Current	310 Microamp max.
Logic 1 Output Voltage	- 0.98 Volts min.
Logic 0 Input Voltage	- 1.48 Volts max.
Logic 0 Output Voltage	- 1.63 Volts max.
Logic 0 Input Current	0.5 Microamp min.
Operating Temperature Range	0°C To 75°C
Temperature Coefficient Of Total Delay	300PPM/°C Typical
Minimum Input Pulse Width	40% Of Total Delay
Maximum Duty Cycle	50%
—Compatible with ECL 10KH circuits.	
—Other delays and tolerances upon request	



Part Number	Tap 1 1, 3	Tap 2 1, 3	Tap 3 1, 3	Tap 4 1, 3	Output 1, 3	Rise Time 2, 3
0459-0006-02	2 ± .5	3 ± .5	4 ± 1	5 ± 1	6 ± 1	2
0459-0010-02	2 ± .5	4 ± 1	6 ± 1	8 ± 2	10 ± 2	2
0459-0015-02	3 ± 1	6 ± 1	9 ± 2	12 ± 2	15 ± 2	2
0459-0020-02	4 ± 1	8 ± 2	12 ± 2	16 ± 2	20 ± 2	2
0459-0025-02	5 ± 1	10 ± 2	15 ± 2	20 ± 2	25 ± 2	3
0459-0030-02	6 ± 1	12 ± 2	18 ± 2	24 ± 2	30 ± 2	3
0459-0035-02	7 ± 1	14 ± 2	21 ± 2	28 ± 2	35 ± 2	3
0459-0040-02	8 ± 2	16 ± 2	24 ± 2	32 ± 2	40 ± 2	3
0459-0045-02	9 ± 2	18 ± 2	27 ± 2	36 ± 2	45 ± 2	4
0459-0050-02	10 ± 2	20 ± 2	30 ± 2	40 ± 2	50 ± 2	4
0459-0075-02	15 ± 2	30 ± 2	45 ± 2	60 ± 3	75 ± 3	5
0459-0100-02	20 ± 2	40 ± 2	60 ± 3	80 ± 3	100 ± 3	8
0459-0125-02	25 ± 2	50 ± 2	75 ± 3	100 ± 3	125 ± 4	8
0459-0150-02	30 ± 2	60 ± 3	90 ± 3	120 ± 4	150 ± 5	10
0459-0175-02	35 ± 2	70 ± 3	105 ± 4	140 ± 5	175 ± 5	10
0459-0200-02	40 ± 2	80 ± 3	120 ± 4	160 ± 5	200 ± 6	12
0459-0225-02	45 ± 2	90 ± 3	135 ± 4	180 ± 6	225 ± 7	13
0459-0250-02	50 ± 2	100 ± 3	150 ± 5	200 ± 6	250 ± 8	14
0459-0300-02	60 ± 3	120 ± 4	180 ± 5	240 ± 7	300 ± 9	15
0459-0350-02	70 ± 3	140 ± 5	210 ± 7	280 ± 9	350 ± 11	15
0459-0400-02	80 ± 3	160 ± 5	240 ± 7	320 ± 10	400 ± 12	18
0459-0450-02	90 ± 3	180 ± 6	270 ± 8	360 ± 11	450 ± 14	18
0459-0500-02	100 ± 3	200 ± 6	300 ± 9	400 ± 12	500 ± 15	20

1 Delays measured at 50% of the pulse on leading edge only.  
2 Rise time measured from 20% to 80% of the pulse.  
3 All timing in NS.

Specifications Subject To Change Without Notice