

SERIES EL517 ECL (10K COMPATIBLE) PROGRAMMABLE LOGIC DELAY MODULES (5-BIT)

- 5-Bit ECL Programmable Delay Line • 32 Pin DIP Package
- ECL Input and Output Levels • 70 ECL DC Fan-out Capacity

Specifications:

Supply Voltage	: -5.2VDC to Vee
Logic 1 Voltage	: -.96v Min
Logic 1 Current	: 265 μ A Max
Logic 0 Voltage	: -1.65v Max
Logic 0 Current	: .5 μ A Min
Output Rise Time ⁽²⁾	: 5NSEC Typ.
Storage Temperature	: -55°C to +125°C
Operating Temperature	: -30°C to +85°C
Temperature Coefficient	: 100 PPM/°C
Power Dissipation	: 615mW Typ.

Test Conditions:

Input Pulse-Width	: Min 150% of Total Delay
Input Pulse Rise Time	: 2NSEC Max
Input Pulse Voltage	: 1v (-0.75vH to -1.75vL)
Vee Supply Voltage	: -5.2VDC

Truth Table

Enable Eo	Address Bit No.					Total Delay
	5	4	3	2	1	
0	0	0	0	0	0	1D
0	0	0	0	0	1	1D+1T
0	0	0	0	1	0	1D+2T
0	0	0	0	1	1	1D+3T
0	0	0	1	0	0	1D+4T
0	0	0	1	0	1	1D+5T
0	0	1	0	0	0	1D+8T
0	0	1	1	1	1	1D+15T
0	1	1	1	1	1	1D+31T

1 = High 0 = Low

When Eo is 1, no output

1D = Inherent Delay 5.5 ± 1

T = Multiplier of Incremental Delay
(Delay change per step)

For simplicity, all 32 programmable steps are not shown in this Truth Table.

Electrical Specifications at 25°C

Part Number	Inherent Delay Time (NS) (1)	Incremental Delay Per Step (NS) (1)	Max Delay Time (NS) (1)
EL517-5.5-0.5	5.5 ± 1	0.5 ± 0.3	21 ± 1
EL517-5.5-1	5.5 ± 1	1 ± 0.5	36.5 ± 2
EL517-5.5-2	5.5 ± 1	2 ± 0.5	67.5 ± 2.5
EL517-5.5-3	5.5 ± 1	3 ± 1.0	98.5 ± 3.0
EL517-5.5-4	5.5 ± 1	4 ± 1.0	129.5 ± 3.0
EL517-5.5-5	5.5 ± 1	5 ± 1.0	160.5 ± 4.0
EL517-5.5-6	5.5 ± 1	6 ± 1.0	191.5 ± 4.0
EL517-5.5-8	5.5 ± 1	8 ± 1.0	253.5 ± 5.0
EL517-5.5-10	5.5 ± 1	10 ± 1.5	315.5 ± 6.0
EL517-5.5-12	5.5 ± 1	12 ± 1.5	377.5 ± 8
EL517-5.5-15	5.5 ± 1	15 ± 1.5	470.5 ± 10
EL517-5.5-20	5.5 ± 1	20 ± 2.0	625.5 ± 12

Note: (1) Measured at -1.3v level leading edge.

(2) Measured from 20% to 80% Pulse Amplitude.

(3) Outputs terminated through 270 ohms to -5.2VDC.

