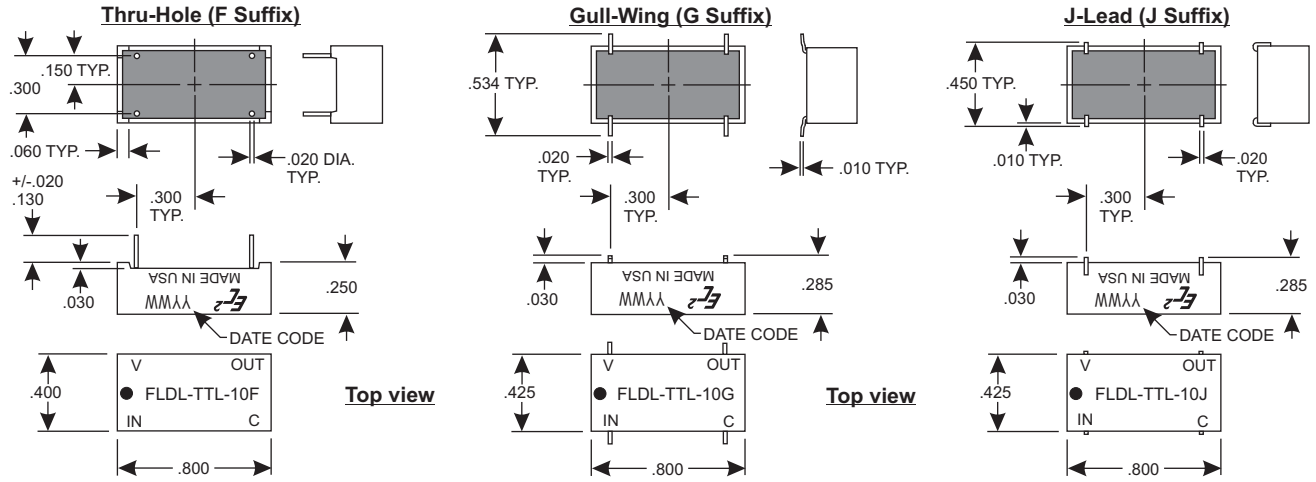
FAST TTL Logic Delay Line

The FAST TTL Logic Delay Lines manufactured by Engineered Components Company are designed to provide an output waveform that reproduces the input waveform after a set amount of delay time has elapsed. These delay lines are non-inverting. The delay times are calibrated to the listed tolerances on the rising edge delays.

The MTBF on these modules, when calculated per MIL-HDBK-217, for a 50 deg.C ground fixed environment and with 50VDC applied, is in excess of 6 million hours. The temperature coefficient of delay is less than 1200 ppm/deg.C over the operating temperature range of 0 to +70 deg. C.

The module is provided in a 14-pin DIP package, fully encapsulated in epoxy resin and is housed in a Diallyl Phthalate case, blue in color. The case marking is applied by silkscreen using white epoxy paint. The 4 copper leads are tin-lead plated and meet the solderability requirements of MIL-STD-202, Method 208.

MECHANICAL DIAGRAM



Product Selection Table
(Add Suffixes for Lead designation, F, G, or J)

Part Number	Output Delay and Tolerance (in ns)
FLDL-TTL-5	5.0+/-1.0
FLDL-TTL-6	6.0+/-1.0
FLDL-TTL-7	7.0+/-1.0
FLDL-TTL-8	8.0+/-1.0
FLDL-TTL-9	9.0+/-1.0
FLDL-TTL-10	10.0+/-1.0
FLDL-TTL-11	11.0+/-1.0
FLDL-TTL-12	12.0+/-1.0
FLDL-TTL-13	13.0+/-1.0
FLDL-TTL-14	14.0+/-1.0
FLDL-TTL-15	15.0+/-1.0
FLDL-TTL-16	16.0+/-1.0
FLDL-TTL-17	17.0+/-1.0
FLDL-TTL-18	18.0+/-1.0
FLDL-TTL-19	19.0+/-1.0
FLDL-TTL-20	20.0+/-1.0
FLDL-TTL-21	21.0+/-1.0
FLDL-TTL-22	22.0+/-1.0
FLDL-TTL-23	23.0+/-1.0
FLDL-TTL-24	24.0+/-1.0
FLDL-TTL-25	25.0+/-1.0
FLDL-TTL-30	30.0+/-1.5
FLDL-TTL-35	35.0+/-1.5
FLDL-TTL-40	40.0+/-1.5
FLDL-TTL-45	45.0+/-2.0
FLDL-TTL-50	50.0+/-2.0
FLDL-TTL-55	55.0+/-2.0

Product Selection Table (Cont.)
(Add Suffixes for Lead designation, F, G, or J)

Part Number	Output Delay and Tolerance (in ns)
FLDL-TTL-60	60.0+/-2.0
FLDL-TTL-65	65.0+/-2.5
FLDL-TTL-70	70.0+/-2.5
FLDL-TTL-75	75.0+/-2.5
FLDL-TTL-80	80.0+/-2.5
FLDL-TTL-85	85.0+/-3.0
FLDL-TTL-90	90.0+/-3.0
FLDL-TTL-95	95.0+/-3.0
FLDL-TTL-100	100.0+/-3.0
FLDL-TTL-125	125.0+/-4.0
FLDL-TTL-150	150.0+/-4.5
FLDL-TTL-175	175.0+/-5.0
FLDL-TTL-200	200.0+/-6.0
FLDL-TTL-225	225.0+/-7.0
FLDL-TTL-250	250.0+/-8.0
FLDL-TTL-275	275.0+/-9.0
FLDL-TTL-300	300.0+/-10.0
FLDL-TTL-350	350.0+/-11.0
FLDL-TTL-400	400.0+/-12.0
FLDL-TTL-450	450.0+/-14.0
FLDL-TTL-500	500.0+/-15.0
FLDL-TTL-600	600.0+/-18.0
FLDL-TTL-700	700.0+/-20.0
FLDL-TTL-800	800.0+/-22.0
FLDL-TTL-900	900.0+/-24.0
FLDL-TTL-1000	1000.0+/-26.0

Special modules can often be manufactured to provide for customer specific applications.

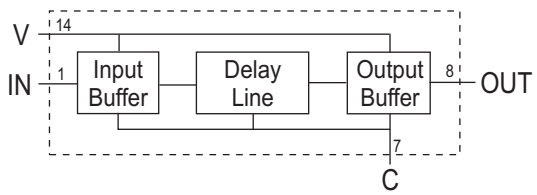
Operating Specifications:

All measurements made at 25 deg. C
All measurements made with Vcc = +5VDC
All measurements made with (1) FAST TTL output load

Operating Temperature: 0 to +70 deg. C
Storage Temperature: -55 to +125 deg. C

Vcc Supply Voltage: 4.75 to 5.25VDC
Vcc Supply Current:
  Constant “0” in = 40mA typical
  Constant “1” in = 7mA typical
Logic “High” Input:
  Voltage: 2.0VDC min. ; Vcc max.
  Current: 2.7VDC = 20uA max. ; 5.5VDC = 1mA max.
Logic “Low” Input:
  Voltage: 0.8 VDC max.
  Current: -0.6mA max.
Logic “High” Voltage Out: 2.7VDC min.
Logic “Low” Voltage Out: 0.5VDC max.

BLOCK DIAGRAM



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