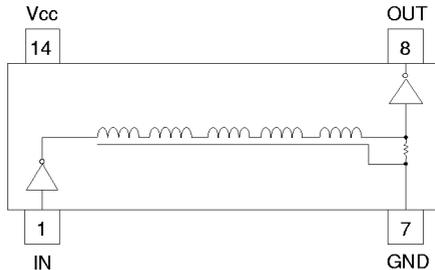


# FSDM Series FAST / TTL Buffered Single Output Delay Lines

- 14-Pin Package Commercial and Mil-Grade Versions
- FAST/TTL Logic Buffered
- Operating Temperature Ranges 0°C to +70°C, or -55°C to +125°C
- 8-pin DIP/SMD Versions: FAMDL Series  
14-pin DIP/SMD Versions: FAIDL Series

FSDM 14-Pin Schematic



## Electrical Specifications at 25°C

Delay Tolerance (ns)	14 Pin DIL TTL Buffered Triple Independent Delays	
	Commercial Part Number	MIL-Grade Part Number
5 ± 1.00	FSDM-5	FSDM3-5M
6 ± 1.00	FSDM-6	FSDM3-6M
7 ± 1.00	FSDM-7	FSDM3-7M
8 ± 1.00	FSDM-8	FSDM3-8M
9 ± 1.00	FSDM-9	FSDM3-9M
10 ± 1.50	FSDM-10	FSDM3-10M
15 ± 2.00	FSDM-15	FSDM3-15M
20 ± 2.00	FSDM-20	FSDM3-20M
25 ± 2.00	FSDM-25	FSDM3-25M
30 ± 2.00	FSDM-30	FSDM3-30M
35 ± 2.00	FSDM-35	FSDM3-35M
40 ± 2.00	FSDM-40	FSDM3-40M
50 ± 2.50	FSDM-50	FSDM3-50M
60 ± 3.00	FSDM-60	FSDM3-60M
70 ± 3.50	FSDM-70	FSDM3-70M
75 ± 3.75	FSDM-75	FSDM3-75M
80 ± 4.00	FSDM-80	FSDM3-80M
100 ± 5.0	FSDM-100	FSDM3-100M
125 ± 6.25	FSDM-125	FSDM3-125M
250 ± 12.5	FSDM-250	FSDM3-250M
500 ± 25.0	FSDM-500	FSDM3-500M
1000 ± 50.0	FSDM-1000	FSDM3-1000

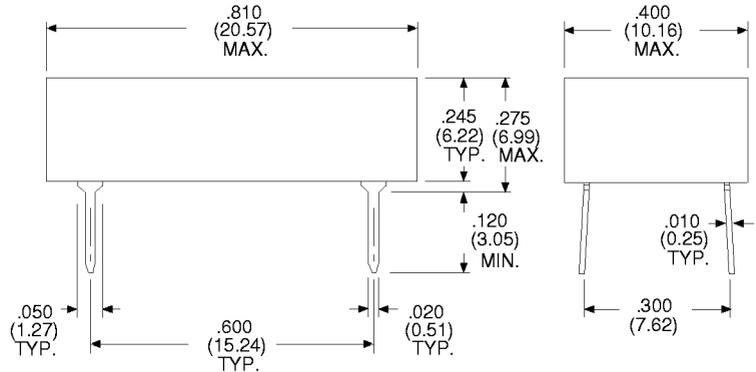
## TEST CONDITIONS -- FAST / TTL

V<sub>CC</sub> Supply Voltage ..... 5.00VDC  
 Input Pulse Voltage ..... 3.20V  
 Input Pulse Rise Time ..... 3.0 ns max.  
 Input Pulse Width / Period ..... 1000 / 2000 ns

1. Measurements made at 25°C
2. Delay Times measured at 1.50V level of leading edge.
3. Rise Times measured from 0.75V to 2.40V.
4. 10pf probe and fixture load on output under test.

## Dimensions in Inches (mm)

Commercial Grade 14-Pin Package with Unused Leads Removed as per Schematic. (For Mil-Grade FSDM3 the Height is 0.335")



## OPERATING SPECIFICATIONS

V<sub>CC</sub> Supply Voltage ..... 5.00 ± 0.25 VDC  
 I<sub>CC</sub> Supply Current ..... 25 mA typ, 48 mA max.  
 Logic "1" Input: V<sub>IH</sub> ..... 2.00 V min., 5.50 V max.  
 I<sub>IH</sub> ..... 20 µA max. @ 2.70V  
 Logic "0" Input: V<sub>IL</sub> ..... 0.80 V max.  
 I<sub>IL</sub> ..... -0.6 mA mA  
 V<sub>OH</sub> Logic "1" Voltage Out ..... 2.40 V min.  
 V<sub>OL</sub> Logic "0" Voltage Out ..... 0.50 V max.  
 P<sub>WI</sub> Input Pulse Width ..... 40% of Delay min.  
 Operating Temperature Range ..... 0° to 70°C  
 Storage Temperature Range ..... -65° to +150°C

## P/N Description

**FSDM - XXX X**

Buffered Triple Delays:

14-pin Com!: FSDM  
 14-pin MIL: FSDM3

Total Delay in nanoseconds (ns)

Temp. Range Blank = Commercial  
 M = Mil-Grade

Examples: FSDM-25 = 25ns Delay  
 74F, 14-Pin Thru-hole  
 FSDM3-50M = 50ns Delay  
 74F, 14-Pin, Mil-Grade

**MIL-GRADE:** FSDM3 Military Grade delay lines use integrated circuits screened to MIL-STD-883B with an operating temperature range of -55 to +125°C. These devices have a package height of .335"

*Auto-Insertable DIP and Surface Mount Versions:  
 Refer to FAIDL Series, same 14-pin footprint.  
 For space saving, refer to FAMDL 8-pin Series*