

3 INPUT / 3 OUTPUT DIGITAL DELAY LINE ("JAN" LISTED)

FEATURES

- MIL-STD-883, 1.2.1 COMPLIANT
- MIL-H-38534 COMPLIANT
- MIL-D-83532 QPL APPROVED
- TTL SCHOTTKY BUFFERED INPUTS AND OUTPUTS
- HERMETICALLY SEALED METAL PACKAGE
- LOW PROFILE 14-PIN DIP
- CUSTOMS ALSO AVAILABLE

SPECIFICATIONS

INPUT TEST CONDITIONS:

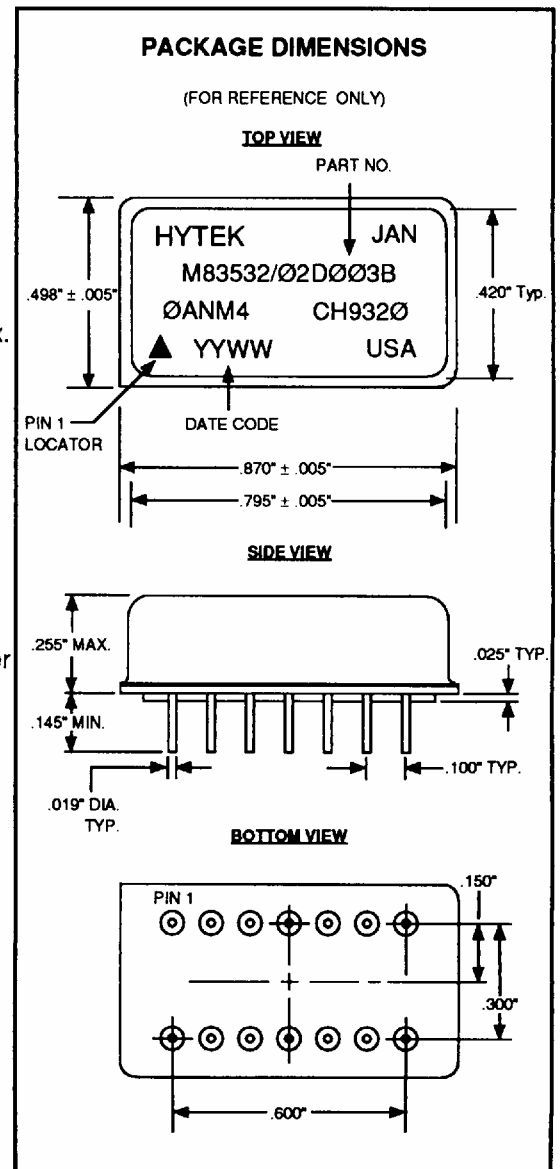
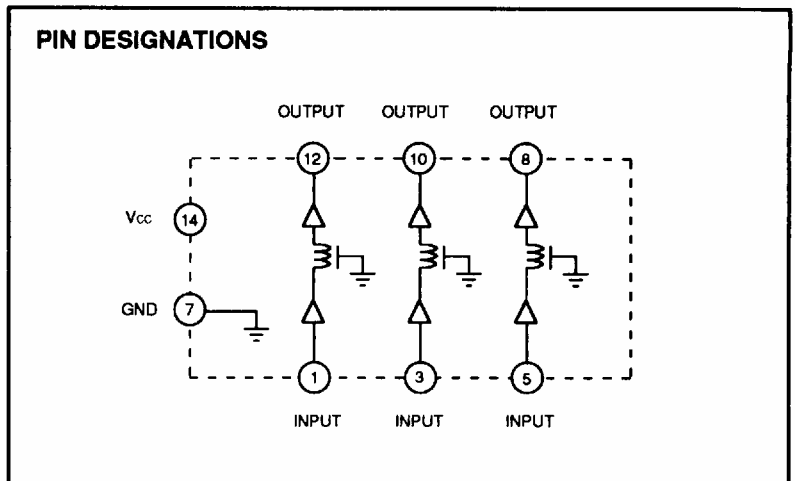
- SUPPLY VOLTAGE (V_{cc}) 5.0 Vdc
- PULSE VOLTAGE Logic 1 = 3.3 Volts
Logic 0 = 0.0 Volts
- RISE TIME 3.0 nSec max.
- PULSE WIDTH 2.5 x max. delay
- DUTY CYCLE 50% max.

DRIVE CAPABILITIES:

- LOGIC 0 10 TTL Schottky loads/tap max.
20 TTL Schottky loads/unit max. (20 mA max.)
- LOGIC 1 20 TTL Schottky loads/tap and unit max. (-1 mA max.)

OPERATING CHARACTERISTICS:

- OUTPUT RISE TIME (t_{ro}) 4 nSec. max. (measured from 0.75V to 2.4V)
- TOTAL DELAY TOLERANCE ± 2 nSec. or $\pm 5\%$ whichever is greater at 25° C
 ± 3 nSec. or $\pm 8\%$ which ever is greater over operating temperature range.
- SUPPLY CURRENT 115 mA max.
- SUPPLY VOLTAGE (V_{cc}) 4.5 to 5.5 Vdc
- LOGIC 1 INPUT CURRENT 50 μ A @ $V_{cc} = 5.5$ V and $V_{IH} = 2.7$ V
- LOGIC 0 INPUT CURRENT -2 mA max. @ $V_{cc} = 5.5$ V and $V_{IL} = 0.5$ V
- LOGIC 1 OUTPUT VOLTAGE 2.5V min., 3.4 V typical
- LOGIC 0 OUTPUT VOLTAGE 0.5V max.
- SHORT CIRCUIT OUTPUT CURRENT -40 mA min. to -150 mA max. $V_{cc} = 5.5$ V, one output shorted for max. 1 Sec. duration
- OPERATING TEMPERATURE -55° C to +125° C

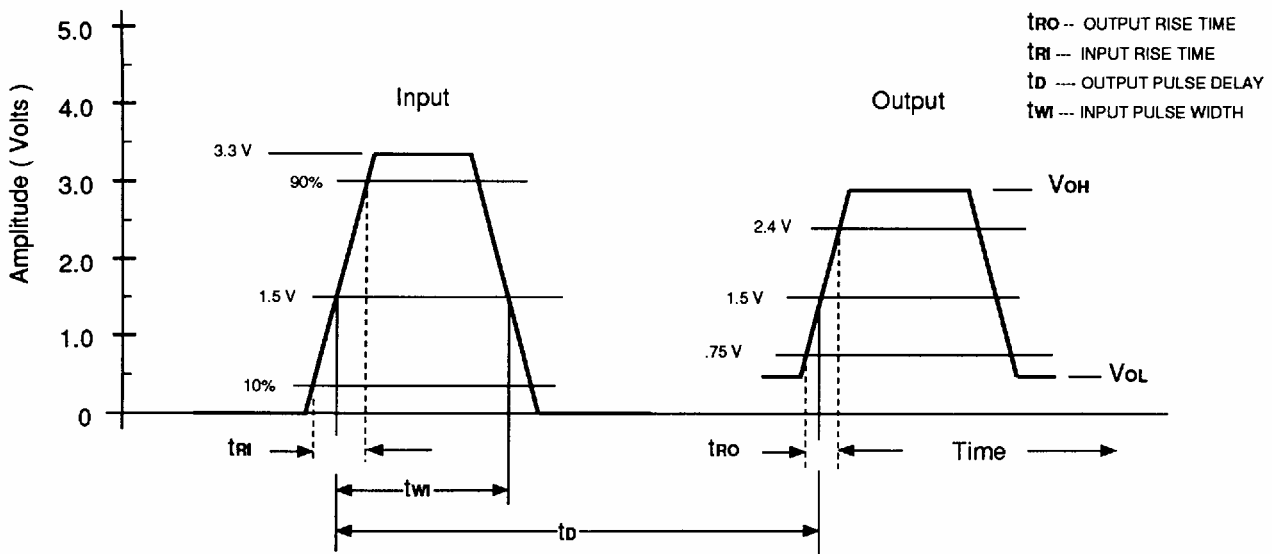


DELAYED OUTPUT CHARACTERISTICS

Hytek Part No.	Mil. Part No.	Output Delays in nSecs (t_D) †		Hytek Part No.	Mil. Part No.	Output Delays in nSecs (t_D) †	
		25°C	-55 to 125°C			25°C	-55 to 125°C
8032005	M83532/04D001B	5.0 ±2 nS	5.0 ±3 nS	8032020	M83532/04D014B	20.0 ±2 nS	20.0 ±3 nS
8032006	M83532/04D002B	6.0 ±2 nS	6.0 ±3 nS	8032025	M83532/04D015B	25.0 ±2 nS	25.0 ±3 nS
8032007	M83532/04D003B	7.0 ±2 nS	7.0 ±3 nS	8032030	M83532/04D016B	30.0 ±2 nS	30.0 ±3 nS
8032008	M83532/04D004B	8.0 ±2 nS	8.0 ±3 nS	8032035	M83532/04D017B	35.0 ±2 nS	35.0 ±3 nS
8032009	M83532/04D005B	9.0 ±2 nS	9.0 ±3 nS	8032040	M83532/04D018B	40.0 ±2 nS	40.0 ±3 nS
8032010	M83532/04D006B	10.0 ±2 nS	10.0 ±3 nS	8032045	M83532/04D019B	45.0 ±5%	45.0 ±8%
8032011	M83532/04D007B	11.0 ±2 nS	11.0 ±3 nS	8032050	M83532/04D020B	50.0 ±5%	50.0 ±8%
8032012	M83532/04D008B	12.0 ±2 nS	12.0 ±3 nS	8032055	M83532/04D021B	55.0 ±5%	55.0 ±8%
8032013	M83532/04D009B	13.0 ±2 nS	13.0 ±3 nS	8032060	M83532/04D022B	60.0 ±5%	60.0 ±8%
8032014	M83532/04D010B	14.0 ±2 nS	14.0 ±3 nS	8032070	M83532/04D023B	70.0 ±5%	70.0 ±8%
8032015	M83532/04D011B	15.0 ±2 nS	15.0 ±3 nS	8032080	M83532/04D024B	80.0 ±5%	80.0 ±8%
8032016	M83532/04D012B	16.0 ±2 nS	16.0 ±3 nS	8032090	M83532/04D025B	90.0 ±5%	90.0 ±8%
8032018	M83532/04D013B	18.0 ±2 nS	18.0 ±3 nS	8032100	M83532/04D026B	100.0 ±5%	100.0 ±8%

† Delay tolerances are ± 3 nSec. or 8% whichever is greater over the operating temperature range.

REFERENCE WAVEFORMS



Hytek manufactures active delay lines and custom hybrid circuits using thick film technology. The manufacturing facility, located in Carson City, Nevada is certified and qualified to MIL-STD-1772 and qualified to produce delay lines that are compliant to MIL-D-83532. In accordance with these requirements, active delay lines are manufactured, tested, and screened in compliance with method MIL-H-38534. The hybrid delay lines are enclosed in metal packages which are hermetically sealed using inert gases. The manufacturing, testing, and quality systems utilized by Hytek insure the highest reliability product possible is supplied for the harshest military environments.

2-15-93