

3 INPUT/3 OUTPUT DIGITAL DELAY LINE (Hi-Rel Package)

HY5100

FEATURES

- 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 = 3.2 volts
Logic 0 = 0.0 volts

RISE TIME 3.0 nsec.
PULSE WIDTH 2 x total delay
DUTY CYCLE 20%

DRIVE CAPABILITIES:

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

OPERATING CHARACTERISTICS:

OUTPUT RISE TIME 4 nsec. max. (measured
from 0.75V to 2.4V)

DELAY TOLERANCES ± 1 nsec or $\pm 5\%$ whichever
is greater

SUPPLY CURRENT 70 mA max.

SUPPLY VOLTAGE (V_{CC}) 4.75 to 5.25 VDC
LOGIC 1 INPUT CURRENT 50 μ A @ V_{CC} = 5.25V
and V_{IH} = 2.70V

LOGIC 0 INPUT CURRENT -2 mA max. @ V_{CC} = 5.25V
and V_{IL} = 0.50V

LOGIC 1 OUTPUT VOLTAGE 2.7V min., 3.4V typical

LOGIC 0 OUTPUT VOLTAGE 0.5V max.

LOGIC 1 INPUT VOLTAGE 2V min. to 5.25V max.

LOGIC 0 INPUT VOLTAGE 0.8V max.

SHORT CIRCUIT

OUTPUT CURRENT -40 mA min. to -100 mA max.

V_{CC} = 5.25V, one output
shorted for max. 1 sec. duration

OPERATING TEMPERATURE 0°C to 70°C

(optional -55°C to +125°C)

STORAGE TEMPERATURE -55°C to +125°C

HERMETICITY leak rate $< 1 \times 10^{-8}$ ATM. CC/S

DELAY AT EA. OUTPUT	
Part No.*	Delay Output (nsec.)
HY5100-010R	10
HY5100-012R	12
HY5100-014R	14
HY5100-016R	16
HY5100-018R	18
HY5100-020R	20
HY5100-025R	25
HY5100-030R	30
HY5100-035R	35
HY5100-040R	40
HY5100-045R	45
HY5100-050R	50

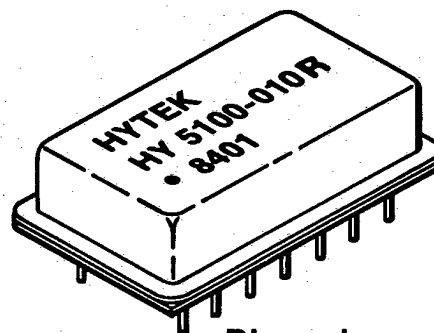
† Suffix designates:

R = standard 0°C to 70°C operation

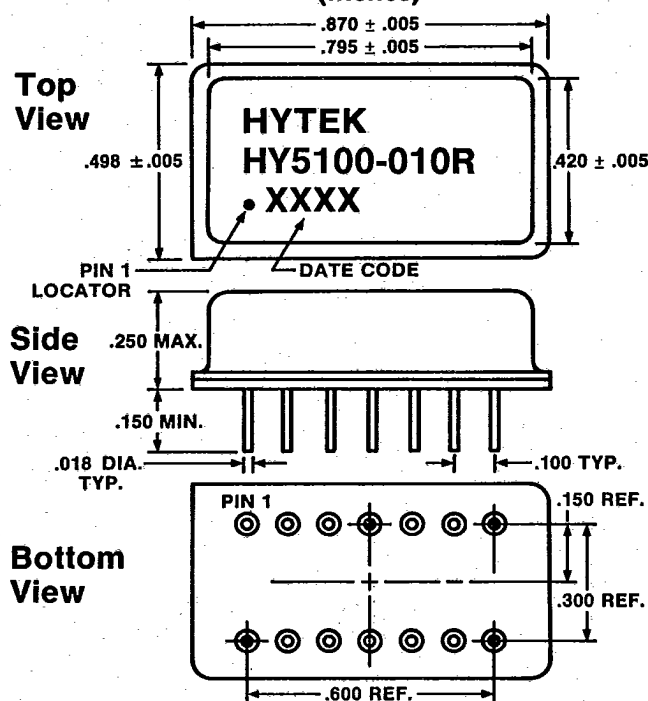
M = standard -55°C to +125°C operation

Z = 883 screening

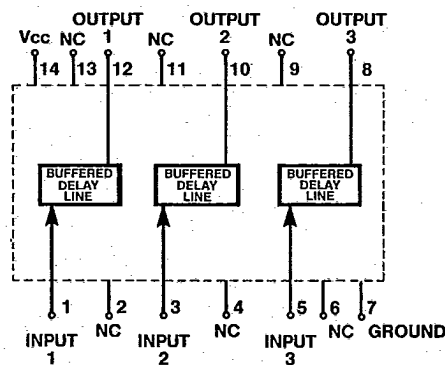
Specifications Subject to Change Without Notice



Dimensions
(Inches)



Top View



hytek microsystems
incorporated

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