

10-TAP DIGITAL DELAY LINE (Hi-Rel Package)

HY5010

FEATURES

- TTL Schottky buffered input and outputs
- Hermetically sealed metal package
- Low profile 14-pin DIP
- High MTBF
- 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/tap max. 20 TTL loads/unit max. (20 mA max.)
LOGIC 1	20 TTL loads/tap and unit max. (-1 mA max.)

OPERATING CHARACTERISTICS:

OUTPUT RISE TIME	4 nsec. max. (measured from 0.75V to 2.4V)
TOTAL DELAY TOLERANCE	±2 nsec. or ±5% whichever is greater
SUPPLY CURRENT	120 mA max.,
SUPPLY VOLTAGE (V _{CC})	4.75 to 5.25 VDC
LOGIC 1 INPUT CURRENT	100 μA @ V _{CC} = 5.25V and V _{IH} = 2.70V
LOGIC 0 INPUT CURRENT	-4 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 X 10 ⁻⁸ ATM. CC/S

DELAY AT EA. TAP IN NSEC.

Part No.†	Total Delay (nsec.)	Tap-To-Tap Delay (nsec.)
HY5010-050R	50 ± 2.5	5 ± 1.0*
HY5010-100R	100 ± 5.0	10 ± 2.0
HY5010-150R	150 ± 7.5	15 ± 3.0
HY5010-200R	200 ± 10.0	20 ± 4.0
HY5010-250R	250 ± 13.5	25 ± 5.0
HY5010-500R	500 ± 25.0	50 ± 10.0

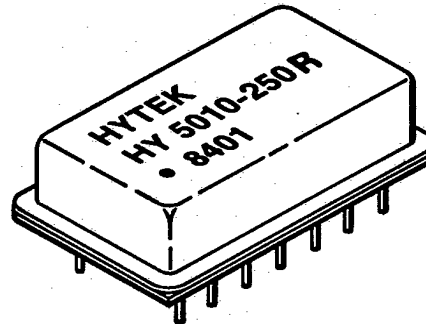
† Suffix designates:

R = standard 0°C to 70°C operation

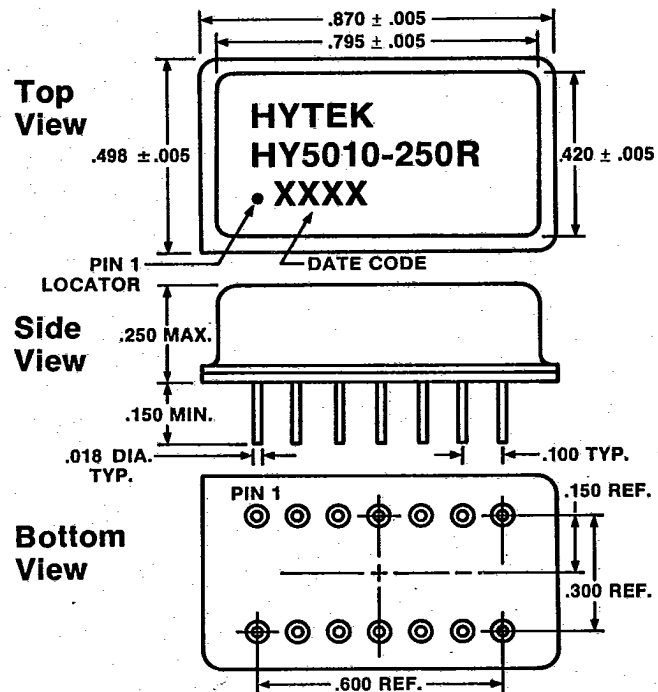
M = standard -55°C to +125°C operation

Z = 883 screening

*HY5010-050 tolerance on first tap is +2, -1 nsec.



Dimensions (Inches)



Specifications Subject to Change Without Notice

hytek

 microsystems
incorporated

 980 University Avenue, Los Gatos, CA 95030
 Phone (408) 395-2300 TWX 910-597-5393